#### KINGDOM OF SAUDI ARABIA

Ministry of Higher Education

Majmaah University

Faculty of science

Department of Computer Science & Inf.



المملكة العربية السعودية وزارة التعليم العالي جامعة المجمعة كلية العلوم

قسم علوم الحاسب و المعلومات

# **Quick Job search website**



Student Affairs System
For College of science Al Zulfi
Department of Computer Science and Information
Graduation Project

Submitted in partial fulfillment of the requirements for the award of

Bachelor degree of the Majmaah University

(Semester 1, 2018-19)

Submitted by: Wafa AbdulAziz Al-Salman ID: 351204087

Under the supervision of: Dr. Nasreen Sultana Quadri Date: 17/3/1440

#### **Abstract:**

In this present world with the advancement of technology, the rate of unemployment is rising, and this is a great problem for individuals and society. Therefore, in this paper I will propose a unique solution for this problem, in the form of a website platform for people such as jobseekers and others who need to earn money in the short term to come together with business owners who need services provided to them. In this way the needs of all can be fulfilled and provide increased opportunities to work in different fields, gaining knowledge of the working environment, and interaction with others.

Keywords: Job seekers, Job provider, unemployment

## Acknowledgements

It has been a great opportunity to gain a great deal of experience in real-time projects, followed by the knowledge of how to actually design and analyze real projects. This research project would not have been possible without the support of many people. I am grateful to my supervisor Nasreen Quadri, she was flexible with me and gave me good documents and suggestions as to how best to present my research. Even though she was occupied with her faculty and deanship, she and others in the faculty provided us with time to work on this project and supported us to get the best results. In addition, my friends supported me and helped me to publish my survey. Finally, I would like to express my deepest gratitude to my family who supported and encouraged me to achieve my goal for this paper, especially my brothers Salman and Abdullah who really helped me to learn more about the job environment, gave me suggestions and helped me to write the project.

# MAJMAAH UNIVERSITY, COLLEGE OF SCIENCE AL ZULFI, DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION

# (CERTIFICATE BY STUDENT)

This is to certify that the project titled "Quick job search website" submitted by me
(Wafa Al-Salman, 351204087) under the supervision of Dr. Nasreen Sultana
Quadri for award of Bachelor degree of the Majmaah University carried out during
the Semester 1, 2018-19 embodies my original work.

Signature in full:
Name in block letters:
Student ID:

Date:

# **Table of contents**

	et	
	wledgments	
Certific	cate by student	III
Table o	of Contents	IV
List of	Figures	VI
List of	Tables	VII
CHAP	TER 1	01
1.	Introduction	01
	1.1 Overview	01
	1.2 Problem definition.	01
	1.2.1 Goals	02
	1.2.2 Objective	02
	1.2.3 Critical success factors	02
	1.2.4 Organization chart and responsibilities	
	1.2.5 General rules (assumptions)	
	1.3 Feasiblity study	
CHAP	ΓER 2	
2.	Literature review	
	2.1 Introduction	
	2.1.1 Bayt.com Website	
	2.1.2 LinkIn Website	
	2.1.3 Gulf Talent Website	
	2.1.4 The propsed Quick job Website	
СНАР	TER 3.	
3.	System analysis	
3.	3.1 Description of Dataflow Diagram (DFD)	
	3.1.1 Context diagram	
	3.1.2 Overview diagram (level 0).	
	3.1.3 Detailed DFDs	
	3.2 Entity Relationship Diagram (ERD)	
	3.2.1 Description of entities	
	3.2.2 Description of relations	
	3.2.3 Drawing ERD	
CHAD	TER 4	
4.	System design	
	4.1.1 Tables	
	4.2 Hardware and software requirements	
	4.2.1 Hardware requirements	
	4.2.2 Software requirements	
	4.3 Use case	
	4.3.1 Use case of job provider	
	4.3.2 Use case of job seeker	
	4.3.3 Use case of adminstration	
	4.3.4 Use case for all	
	4.4 Sequence diagram	
	4.4.1 Sequence of login process	
	4.4.2 Sequence of search process for job provider	
	4.4.3 Sequence of write request of job from job provider	
	4.5 Class diagram	
	4.6 Activity diagram	20

	4.7 State diagram	. 22
CHAPT	ER 5	. 23
5. I	mpelmntation and hTesting	. 23
	5.1 Introduction	. 23
	5.2 Procedures	. 23
	5.2.1 Admin: Update account function	. 23
	5.2.2. Job Seeker: Update account function	. 23
	5.2.3. Job Provider: Update account function	. 24
	5.3. Reports	. 24
	5.3.1 Admin database	. 24
	5.3.2. Job Seeker database	. 24
	5.3.3. Job Provider database	. 25
	5.3.4 Acceptance database	. 25
	5.3.5. Evaluation database	. 25
	5.3.3. Experience database	. 26
	5.3.7.Requests database	. 27
	5.3.8. Job Experiences database	. 27
	5.4. Layouts	. 28
	5.4.1.Contract us interface	. 28
	5.4.2.Mange experiences interface of admin	. 28
	5.4.3. Main interface of job provider	. 29
	5.4.4 Evaluation interface of job seeker	. 29
	5.4.5.Post Request	. 29
	5.4.6. Main interface of job seeker	. 30
	5.4.7 Accept/reject requests	. 30
	5.4.8.public offers	. 30
	5.5.Report layout	. 31
	5.5.1.Admin:Login screen	. 31
	5.5.2.Delete one of account of job provider	. 31
	5.5.3. Add new experience screen	. 32
	5.5.4 Delete one of experience screen	. 32
	5.5.5.Job provider: Message after registration screen	. 33
	5.5.6. Post request screen	. 33
	5.5.7 Search specific experience	. 34
	5.5.8 Send private offers screen	. 35
	5.5.9 Mange request of job provider	. 36
	5.510.Evaluate of job seeker	. 39
	5.5.11. Job seeker:Registration	. 40
	5.5.12 Public offer of job seeker interface	
	5.5.13 .Private offers of job seeker interface	. 42
CHAPT	ER 6	
6.	Conclusion and Future work	. 45
	6.1 References	. 46
	6.3 Appendix A	. 47

# List of Figures

Figure 1: Organization chart	3
Figure 2: Context Diagram.	7
Figure 3: Overview diagram.	8
Figure 4: Details DFD	9
Figure 5: ER diagram	11
Figure 6: Use Case of Admin.	15
Figure 7: Use case of Job Provider.	
Figure 8: Use case of Job seeker.	
Figure 9: Use case for all	
Figure 10: Sequence login process.	
Figure 11:Sequence of Search Process.	
Figure 12: Sequence of Write Request.	
Figure 13: Class Diagram	
Figure 14: Activity diagram.	
Figure 15: State Diagram.	
Figure 16:Update account admin	
Figure 17: Update job seeker account.	
Figure 18: Job provider update account	
Figure 19: Admin database	
Figure 20:Job seeker database.	
Figure 21: job provider database.	
Figure 22: acceptance database.	
Figure 23: Evaluation database	
Figure 24: Experiences database.	
Figure 25: Request database.	
Figure 26: Request database.	
Figure 29: Contract interface	
Figure 28: Contract interface.	
Figure 29: Mange experiences interface.	
Figure 30: Main interface of job provider.	
Figure 31: Evaluation interface of job seeker.	
Figure 32: Post request interface.	
Figure 33: Main interface of job seeker.	
Figure 34:Accept/Reject private offers.	
Figure 35: Public offers of job seeker.	
Figure 36: Log in of admin.	
Figure 37: Delete job provider account interface	
Figure 38: Add new experience	
Figure 39:Delete one of experiences	
Figure 40: Message of registration interface.	
Figure 41: After post request interface.	
Figure 42: Search specific experience	
Figure 43:Send private offer interface	
Figure 44: Mange requests of job provider	
Figure 45 : Evaluate job seeker interface.	
Figure 46: Public offers of job seeker interface	
Figure 47: Private offers of job seeker interface	
Figure 48: My evaluation interface.	44

# **List of Tables**

Table 1: Comparsion	<i>6</i>
Table 2: Admin table.	
Table 3: Job seeker.	
Table 4: Job Provider.	
Table 5: Request Table	13
Table 6: Evaluation Table	

## Chapter 1

#### Introduction

#### 1.1. Overview

With the advancement of technology, the world has become a smaller place because people have become dependent on computers and the various technological devices. Following the development of technology, there have been a number of after-effects, such as a rise of unemployment caused by replacing manpower with technological solutions. In parallel, rigorous procedures are being applied for recruitment as demand for jobs is exceeding supply caused by above reasons as well as global economic and political instabilities. Therefore, in this paper I am proposing a unique solution using the same concept (technology) which is one of the main reasons causing the unemployment problem, to tackle the issue by creating a platform which will bring together job seekers needing short-term/one-off income and job providers who require the services of job seekers. By operating this platform, it will ultimately create a new wave of opportunities allowing the exchange of money, products and services and bypassing the rigorous procedures of part-time/full-time jobs.

## 1.2. Problem definition:

Unemployment is an economic phenomenon where the person is forced to stop working despite having the capabilities and energy, because there are not enough jobs or organizations to provide jobs for the job seekers. The nature of economic activity controls job opportunities and increases the rate of unemployment. Those countries with industrially based economies have more jobs than countries whose people depend on agriculture. Therefore, unemployment rates are very high in agricultural countries. There are many effects of unemployment such as social ones. For example, there is a relationship between unemployment, poverty and crime as when the unemployment rate increases, so the crime and poverty rates will increase, too. For example, a person may need a job to support his family but he cannot get a job because there are no jobs in his locality so he may resort to stealing for his family to survive. In Saudi Arabia the number of Saudis seeking employment in the third quarter of 2017 rose to 1,231,549, based on the Saudi statistics authority. This is a high figure so this quick job site will help to solve this problem by reducing the rate of unemployment.

#### 1.2.1. Goals:

The main goal of this site is to reduce the unemployment rate, by opening new windows for the unemployed to find different basic job criteria with respect to different customers. The aim is to make it an easy job portal for everyone, irrespective of their education, background or their appearance. There is no need to sign a contract or meeting face-to-face. On this site anyone can gain much more experience in their field and improve their skills. Additionally, people who need to earn money quickly can gain through this job website experience in different areas of work.

## 1.2.2. Objectives

This website aims to achieve the following objectives:

- Reduce the unemployment rate by provide one-off jobs with fewer strings attached.
- Open new windows for the unemployed and develop the skills of homemakers.
- Find jobs and stakeholders for finding employees in their field.
- Experience different areas of work for people in a short time.

#### 1.2.3. Critical success factors:

- The website will provide different jobs in different fields, such as web design, driving, teaching, table waiting, make-up artist etc., and there is no need to sign a contract or meet face-to-face to get a job.
- Any private or government sector or organization or person can register on this site as job provider if they need working hands.
- Any jobseeker can create a strong CV for the future by working in different fields on this site.
- This website will help to decrease the rate of unemployment because anyone can search for any kind of job, depending on the location and successfully find one.

# 1.2.4. Organization chart and responsibilities

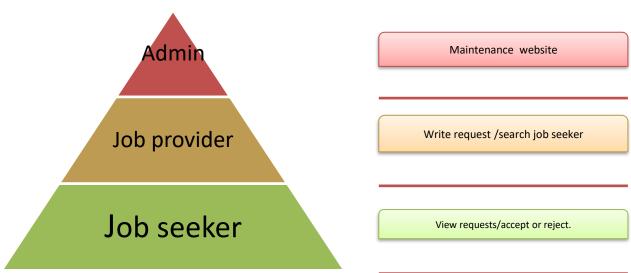


Figure 1: Organization chart

## **1.2.5.** General rules (assumptions)

- Requires both job provider and job seeker to know how to communicate with each other in the website in their primary form. Also the website need to:-
  - Availability: The website should always be available for access at 24 hours ,7 days a week .
  - <u>Reliability:</u> The website should provide the services immediately in response to the user needs like put the evaluation for the job seeker will help to provide this rule.
  - <u>Security:</u> The Information should be secure; there should not be any kind of
    malfunctioning, so the website will support providing unique password email
    and phone numbers to prevent the website from unauthorized access or
    creating account by same user.
  - <u>Usability:</u> The user can use the services offered by the website through an easy to use and simple interface. The website must be easy to understand for all users.

# 1.3. Feasibility study:

The feasibility study is an analysis of the ability to complete a project successfully, taking into account legal, economic, technological, scheduling and other factors. Rather than just diving into a project and hoping for the best, a feasibility study allows project managers to investigate the possible negative and positive outcomes of a project before investing too much time and money Fincher, (Sally, Marian Petre, and Martyn Clark, 2001). This project conducted a survey to study the range of needs to the job according to the local unemployment. The responses was 23 responses. However, only 13 of those responses completed all the survey questions. Based on those 13 responses, we realize the need for jobs is very high. The survey created using Google Drive (see Appendix A).

## Chapter 2

#### 2. Literature Review

#### 2.1. Introduction:

A literature review is an evaluative report of information found in the literature, related to your selected area of study. The review should describe, summarize, evaluate and clarify this literature. It should give a theoretical base for the research and help you (the author) determine the nature of your research. Works which are irrelevant should be discarded and those which are peripheral should be looked at critically.

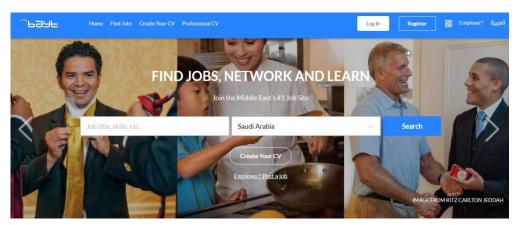
A literature review is more than the search for information, and goes beyond being a descriptive <u>annotated bibliography</u>. All works included in the review must be read, evaluated and analyzed. Relationships between the literature must also be identified and articulated in relation to your field of research (CQ University Library site).

#### 2.1.1. Bayt.com Website

- 3. Bayt.com is the #1 job site in the Middle East, offering a complete range of end-to-end employment solutions and career planning tools.
- 4. Advantages:
- ✓ Provides only professional job criteria in the Middle East and North Africa.
- ✓ Provide an platform for professional networking.
  - ✓ Have an platform for professional discussion, sharing business interests, blogging etc.
  - ✓ Easy to accessing the jobs

#### 5. Disadvantages:

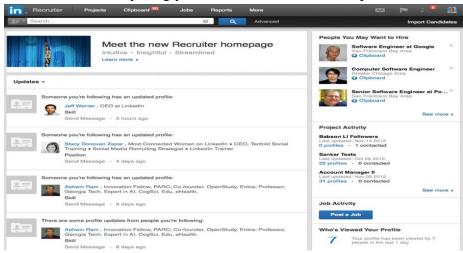
- ✓ Some services not free for the job seekers.
- ✓ Poor password efficacy, because some symbols cannot use such as' \$'.
- ✓ Can't return to the website by same email even you delete your account
- ✓ Require meeting and refresh the CV each period.



Resaved from: https://www.bayt.com/en/saudi-arabia

#### 2.1.2. LinkedIn Website

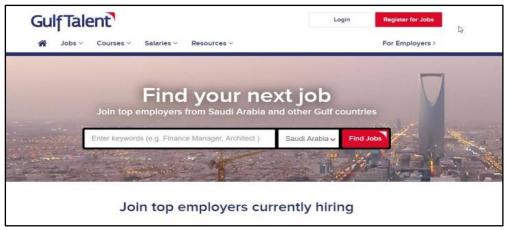
- 6. LinkedIn is a website allows users to research companies, non-profit organizations, and governments they may be interested in working for.
- 7. Advantages:
  - ✓ Developing the professional reputation based on the content you share and engage on.
  - ✓ Available in 20 languages.
  - ✓ Does not promote just as 'A Job search Site' but " a business-oriented social networking service
  - ✓ Have premium & free services
- 8. Disadvantages:
  - ✓ Takes time to learn
  - ✓ Takes time to use.
  - ✓ Everything you do on LinkedIn must be public



Reserved from: <a href="https://www.linkedin.com/jobs/">https://www.linkedin.com/jobs/</a>

#### 2.1.3. Gulf Talent Website

- 9. This site covers vacancies within the Gulf States, and some other Arab countries, such as Egypt, Lebanon, Jordan, Libya and Iraq.
- 10. Advantages:
  - ✓ Easy to use .
  - ✓ Easy to handle.
  - ✓ Easy to understand.
  - ✓ Provide training courses.
- 11. <u>Disadvantages:</u>
  - ✓ Not support Arabic language.
  - ✓ Delayed response to the job application



Reserved from: <a href="https://www.gulftalent.com/">https://www.gulftalent.com/</a>

# 2.1.4. The Proposed "Quick job" site:

Provides individuals with a quick job in their local area. There is no need to sign a contract or take many steps; you can search for any expert in any field to perform your task as a job seeker. For example, say someone has a farm and has a load of dates he wants to sell, he would offer the job on the site with the amount of dates, how much they're worth and then pay for the person selling them. Therefore, it's a one-off job, which ends by the end of the sale of dates. However, this would open a door of opportunities for both parties. And you can be expert in a specific field, and register on this website to improve your skills in your field through performing tasks for others. You can get a chance to work in different fields in a short time. Depending on your specified location you can get a quick job on this site and earn money after that according to the type of job, and finally, you will get the evaluation from the job provider on your work, depending on your performance at work.

**Table1: Comparison of the competitor functionality** 

Comparison of the competitor functionality	Proposed website quick job search	Bayte website	LinkIn website	Gulf Talent website
Multilingual	✓	✓	✓	×
Works with different browsers.	<b>√</b>	<b>√</b>	✓	<b>√</b>
Change region	<b>✓</b>	<b>√</b>	✓	✓
Accessibility	<b>√</b>	<b>√</b>	✓	<b>√</b>
Post Request	<b>√</b>	✓	<b>√</b>	<b>√</b>
Easy to use	<b>√</b>	✓	×	✓
Speed of response	<b>✓</b>	×	×	×
Contract	×		<u> </u>	<u> </u>
Notification	✓	<b>√</b>	✓	<b>√</b>
Rating performance	✓	×	×	×

**Table 1: Comparsion** 

## Chapter 3

## 12. System analysis

Making the system architecture explicit at an early stage in the system development requires some analysis. Architectural design decisions have a profound effect on whether or not the system can meet critical requirements, such as performance, reliability, and maintainability (Sommerville, Ian, 2010).

## 3.1. Description of Data Flow Diagram (DFD)

A data flow diagram shows the logical flow of the system. It is often used to clarify system requirements and identify major transformations. It shows the flow of data through a system. DFDs can also be used for the visualization of data processing. It shows what kind of information will be input to, and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of processes, or information about whether processes will operate in sequence or in parallel (Dennis, Alan, Barbara Haley Wixom 2015).

## 3.1.1. Context Diagram

The first DFD in every business process model, whether a manual system or a computerized system, is the context diagram. As the name suggests, the context diagram shows the entire system in context with its environment. All process models have one context diagram. The context diagram shows the overall business process (Dennis, Alan, Barbara Haley Wixom, 2015).

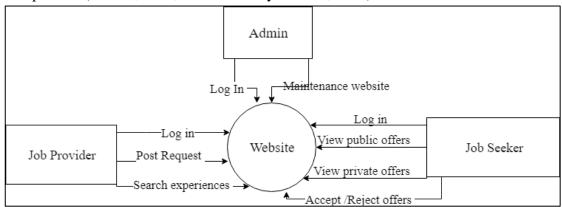


Figure 2: Context Diagram.

- In the figure (2) above explain the main processes of the quick job website with their entities.

## 3.1.2. Overview diagram (level 0)

The next DFD is called the level 0 diagram or level 0 DFD. The level 0 diagram shows all the processes at the first level of numbering (i.e., processes numbered 1 through 3), the data stores, external entities, and data flows among them. The purpose of the level 0 DFD is to show all the major high-level processes of the system and how they are interrelated. All process models have one and only one level 0 DFD (Dennis, Alan, Barbara Haley Wixom 2015).

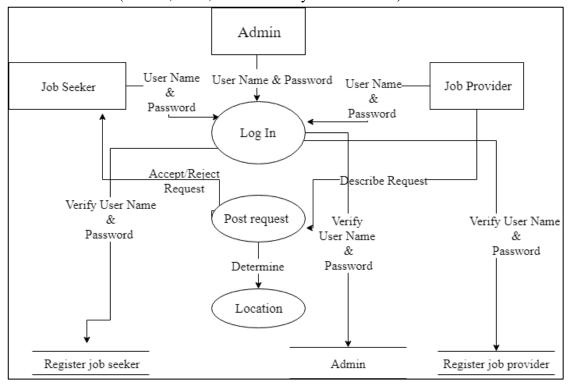


Figure 3: Overview diagram.

-In the figure (3) explain how the main process work in this system with the databases of each entity.

#### 3.1.3. Detailed DFDs

In the same way that the context diagram deliberately hides some of the system's complexity, so, too, does the level 0 DFD. The level 0 DFD shows only how the major high-level processes in the system interact. Each process on the level 0 DFD can be decomposed into a more explicit DFD, called a level 1 diagram, or level 1 DFD, which shows how it operates in greater detail. The DFD illustrated in Figure 5-1 is a level 1 DFD (Dennis, Alan, Barbara Haley Wixom, 2015).

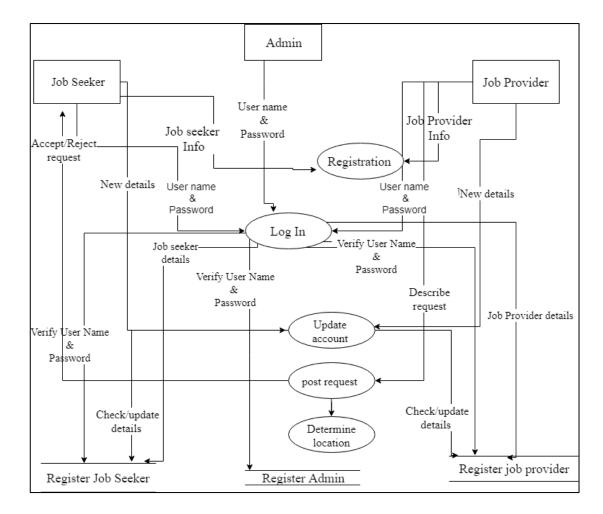


Figure 4: Details DFD

-The figure (4) explains the details of the processes and databases of the quick job website system.

# 3.2. Entity Relationship Diagram (ERD)

This model was developed to facilitate database design and represents the overall logical structure of a database. The entity relationship (ER) data model is one of the several semantics data models; the semantic aspect of the model lies in its representation of the meaning of the data. The ER data model has three basic notions: entity-sets, relationship sets and attributes (Hull, Richard, and Roger King, 1987).

# 3.2.1. Description of entities

1- Name: Job provider

## **Attributes:**

- Name: First & Last name of the Job provider.
- Email: Unique Email for the Job provider.
- Password: Job provider password to login to website.
- # of phone: Unique mobile number for Job provider.
- Birthdate: The day, month, and year in which the Job provider was born.
- Address: Country and city of Job provider.
  - 2- Name: Job seeker

#### **Attributes:**

- Name: The First & Last name of the Job seeker.
- Email: Unique Email for the Job seeker.
- Password: Job seeker password to login to website.
- # of phone: Unique number of mobile for Job seeker.
- Birthdate: The day, month and year in which the Job seeker was born.
- Address: Country and city of Job Seeker.
- Job Experiences: Job seeker, describe their work and experience (if has job), plus qualifications.
  - 3- Name: Request

#### **Attributes:**

- Title: Name of the Job requested.
- Salary: The amount of salary for the quick job.
- Description: Job provider will put in the description of this job.
- Location: Location of the job for the job seeker.

## 3.2.2. Description of relations

- The relationship between Job provider and Job seeker
  - <u>Search</u> is many to one, so the job provider can search and get many Job seekers but the Job seeker can deal with one Job provider only.
  - <u>Salary</u> is one-to-one, so one job provider can pay for many job seekers, and each Job seeker will receive their salary from the Job provider.
  - <u>Evaluation</u> is one-to-many; the Job provider will evaluate each Job seeker after they finish the work, and each Job seeker will check evaluation on their profile.
- The relationship between Job provider and Job.
  - Request is one-to-one; each Job provider can write one Job request at a time.

- The relationship between Job provider and Job
  - Accept/Reject is one-to-many; the job seeker sees many jobs but the job seeker can accept or reject one job at a time.

# 3.2.3. Drawing ERD.

ER DIAGRAM An ER diagram is a specialized graphic that illustrates the interrelationships between entities in a database. ER diagrams often use symbols to represent three different types of information. Boxes are commonly used to represent entities. Diamonds are normally used to represent relationships and ovals are used to represent attributes (Sowa, John F., and John A. Zachman, 1992).

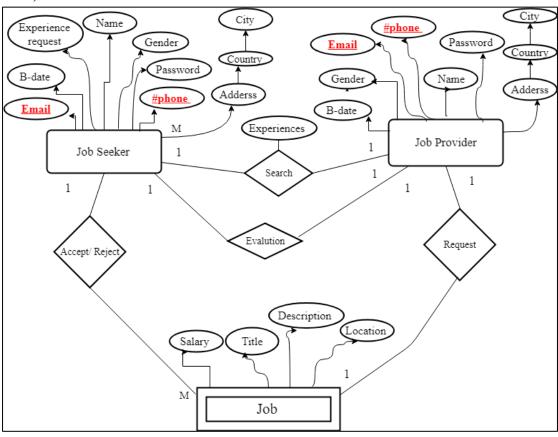


Figure 5: ER diagram

## Chapter 4

## 4. System design

is the determination of the overall system architecture consisting of a set of physical processing components, hardware, software, people, and the communication among them—that will satisfy the system's essential requirements.1

During the initial part of design, the project team converts the business requirements for the system into *system requirements* that describe the technical details for building the system. Unlike business requirements, which are listed in the requirements definition and communicated through use cases and logical process and data models, system requirements are communicated through a collection of design documents and physical process and data models (Dennis, Alan, Barbara Haley Wixom 2015).

#### 4.1. Relation database schema

A database schema is the skeleton structure that represents the logical view of the entire database. It defines how the data is organized and how the relations between them are associated. It formulates all the constraints that are to be applied on the data. A database schema defines its entities and the relationship between them. It contains a descriptive detail of the database, which can be depicted by means of schema diagrams. It is the database designers who design the schema to help programmers understand the database and make it useful (Lum, Vincent, 1978).

#### **4.1.1.** Tables

Several tables would be required to implement our system. The following is

the list of tables:

- Admin table.
- Job seeker table.
- Job provider table
- -Request table
- Evolution table

#### **Admin table**

Field Name	Data Type	Key
Name	Varchar(100)	
Email	Varchar(100)	Primary key
Password	Varchar(100)	

Table 2: Admin table.

# Job seeker table

Field Name	Data Type	Key
Name	Varchar(100)	
Email	Varchar(100)	Primary key
Phone Number	Varchar(45)	Primary Key
Address	Varchar(100)	
Birth date	Date	
Gender	ENUM	

Table 3: Job seeker.

# **Job Provider Table:**

Field Name	Data Type	Key
Name	Varchar(100)	
Email	Varchar(100)	Primary key
Phone Number	Varchar(45)	Primary Key
Address	Varchar(100)	
Birth date	Date	
Gender	ENUM	

Table 4: Job Provider.

# **Request Table**

Field Name	Data Type	Key
Title	Varchar(100)	
Description	Varchar(500)	
datetime	DETATIME	
Salary	Double	
Status	ENUM	

Table 5: Request Table.

# **Evaluation Table**

Field Name	Data Type	Key
Note	Varchar(500)	
detatime	DETATIME	

**Table 6: Evaluation Table.** 

## 4.2. Hardware and software requirements

## 4.2.1. Hardware requirements:

- Server for database.
- Device to enter the website.

## 4.2.2. Software requirements:

- Various software required to create our website are discussed here.
  - WampServer is a Web development platform on Windows that allows you to create dynamic Web applications with Apache2, PHP, MySQL and MariaDB. WampServer automatically installs everything you need to intuitively develope Web applications. You will be able to tune your server without even touching its setting files. Best of all, WampServer is available for free (under GPML license) in both 32 and 64 bit versions.

#### • Features

- Manage your Apache, MySQL and MariaDB services
- Install and switch Apache, MySQL, MariaDB and PHP releases
- Manage your servers settings
- Access your logs
- Access your settings files
- Create alias
- Use VirtualHost as hosters
  - MySQL is a relational database management system. A relational database stores information in different tables. These tables can be referenced to each other, to access and maintain data easily.
  - **HTML** is the primary document format used for Web pages. It's the only one that every Web browser can be guaranteed to read, whether that Web browser is a PC, Mac, mobile phone, iPod, PDA, Blackberry, television, or any other device that has built-in internet access.
  - **PHP** is its ability to talk to server-based databases, so we first need to understand such things.
  - **CSS** is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

#### 4.3. Use case

A use case depicts a set of activities performed to produce some output result. Each use case describes how an external user *triggers* an *event* to which the system must respond. For example, in a video store system, a customer might rent a DVD or return a DVD, or a DVD might become overdue. The acts of renting or returning DVDs and the passage of time are all events triggering a set of activities the system must perform. With this type of *event-driven modeling*, everything in the system can be thought of as a response to some trigger event. When there are no events, the system is at rest, patiently waiting for the next event to trigger it. (Dennis, Alan, Barbara Haley Wixom, 2015).

#### 4.3.1. Use case of Admin.

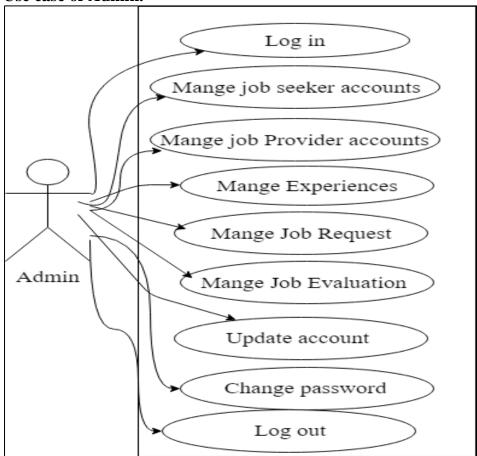


Figure 6: Use Case of Admin.

## 4.3.2. Use Case of Job Provider:

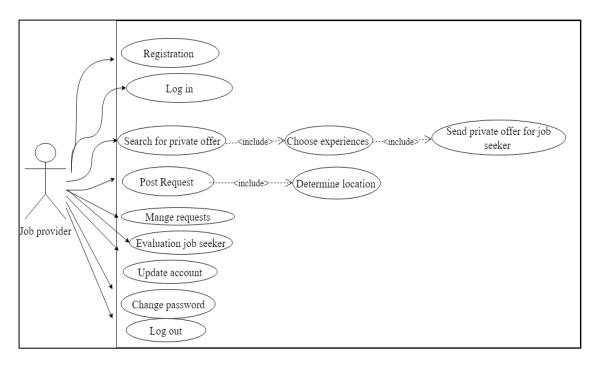


Figure 7: Use case of Job Provider.

#### **4.3.3.** Use Case of Job Seeker:

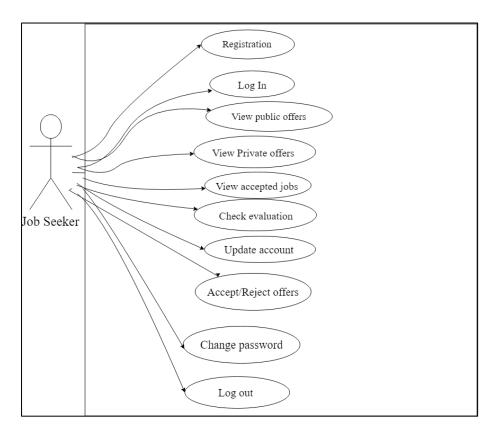


Figure 8: Use case of Job seeker.

## 4.3.4. Use case for all

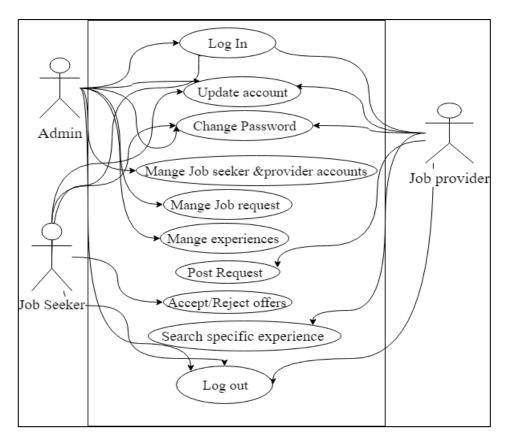


Figure 9: Use case for all

## 4.4. Sequence Diagram

The sequence diagram is a *dynamic model* that supports a dynamic view of the evolving systems. It shows the explicit sequence of messages that are passed between objects in a defined interaction. Since sequence diagrams emphasize the time-based ordering of the activity that takes place among a set of objects, they are very helpful for understanding real-time specifications and complex use cases.

#### 4.4.1. Sequence of login process.

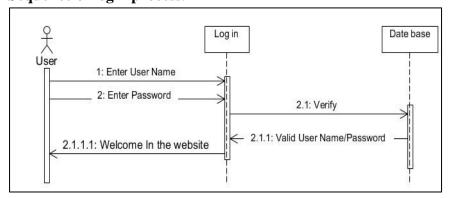


Figure 10: Sequence login process.

- In the login process the user may include an admin or Job seeker or Job provider at the same time. They have the same process to login on the website.

## 4.4.2. Sequence of Search Process for Job provider

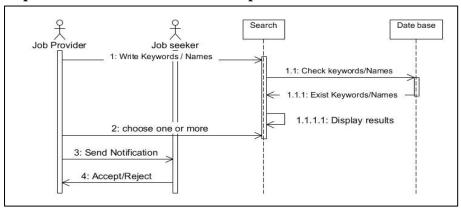


Figure 11: Sequence of Search Process.

- If the Job provider wants a specific Job seeker, they can search in the search box on the website by using keywords or the name of the Job Seeker if known.

## 4.4.3. Sequence of post request of job from Job provider

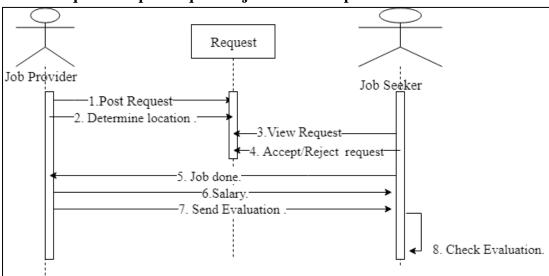


Figure 12: Sequence of Write Request.

- The Job Provider can post request on the website to get a job seeker to perform a particular job. After the job seeker finishes this work, the job provider must evaluate the Job seeker, depending on their performance.

#### 4.5. Class Diagram

"Class diagrams are used when developing an object-oriented system model to show the classes in a system and the associations between these classes. Loosely, an object class can be thought of as a general definition of one kind of system object. An association is a link between classes that indicates that there is a relationship between these classes. Consequently, each class may have to have some knowledge of its associated class When you are developing models during the early stages of the software engineering process, objects represent something in the real world, such as a patient, a prescription, a doctor, etc. As an implementation is developed, you usually need to define additional implementation objects that are used to provide the required system functionality. Here, I focus on the modeling of real-world objects as part of the requirements or early software design processes. Class diagrams in the UML can be expressed at different levels of detail. When you are developing a model, the first stage is usually to look at the world, identify the essential objects, and represent these as classes" (Ambler, Scott, 2004).

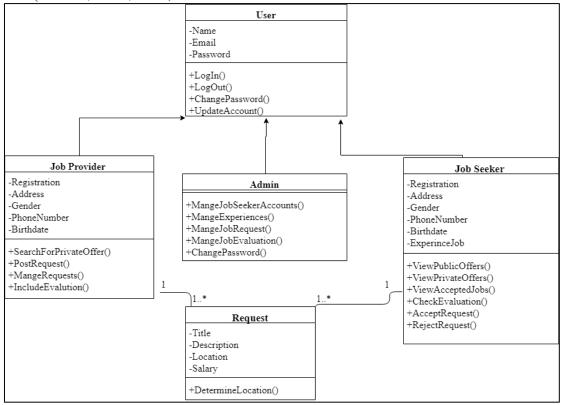


Figure 13: Class Diagram

#### • LogIn():

The user either admin or job provider or seeker can access to the website by sign in.

#### • LogOut:

- The user either admin or job provider or seeker can log out from the website by sign out.

#### • **UpdateAccount():**

- Both the job seeker and job provider can update their own account by settings.

#### • ChangPassword():

- Here where the user can change the old password to stronger password.

#### • MangeJobSeekerAccounts():

- Admin can view and delete and account of job seeker.

#### • MangeJobSeekerAccounts():

- Admin can view and delete and account of job seeker.

## MangeExperinces():

- Admin can add or delete or update different experiences of jobs.

## • SearchForPrivateOffers():

- Job provider wants a specific Job seeker, they can search in the search box on the website by using keywords.

#### • PostRequest():

The job provider can write request to get specific job seeker who will perform a task depending on the description and field.

## • **DetermineLocation():**

- After writing the request from job provider it must to determine the location.

## • MangeRequest():

- Job provider can view own request either private or public requests.

#### • IncludeEvaluation():

- Finally after the job seeker finish the job the job provider must to include evaluation according to the performance of job seeker

#### • ViewPublicOffers():

- Job seeker view the public offers of job provider from the list of requests.

#### • ViewAcceptedRequest():

- Job seeker can view the list of offers which accepted and done..

#### • Checkevaluation():

- Job seeker check the evaluation after job provider include it.

## • AcceptRequest():

- Job request accept the request after viewing it.

## • RejectRequest():

- Job seeker reject the request after viewing it.

#### 4.6. Activity diagram

Intended to show the activities that make up a system process and the flow of control from one activity to another. The start of a process is indicated by a filled circle; the end by a filled circle inside another circle. Rectangles with round corners represent activities, that is, the specific sub-processes that must be carried out. (Sommerville, Ian, 2010).

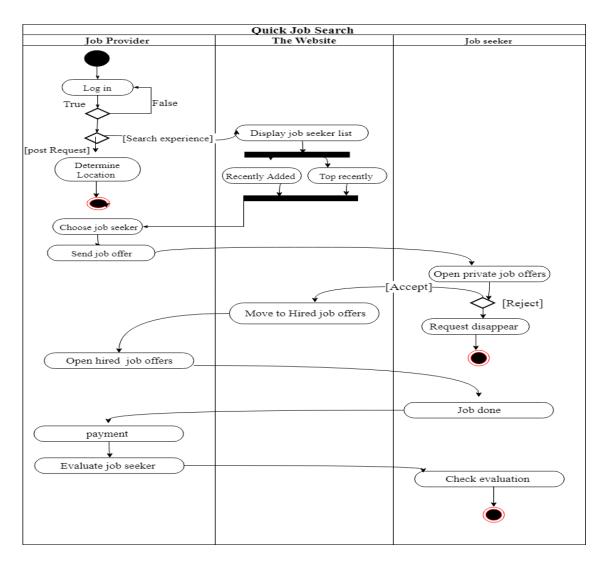


Figure 14: Activity diagram.

- The figure(14) the explain the activity diagram of quick job website system. There are 15 activities respectively which start from the job provider and end with job seeker.
- **Log in:** first job provider log in on the website by valid Username and password if it is false return to login screen
- **Determine location:** after the job provider write the request it must follow the location .
- <u>Display job seeker list:</u> second choice for the job provider is to choose job seeker from the high ranked or recent added from search box by using keywords or names
- <u>Choose job seeker</u>: after the job provider view the list of job seeker by using the search now choose one of them then follow that **Send job offer**

- **Open private job offer** the job seeker will view the request from private job offer.
- Request disappear: if the job seeker reject the request it will disappear.
- <u>Move to Hired job offer:</u> if the job seeker accept the request then the offer will move to hired job offers list of job provider, then job provider will <u>open</u> <u>the hired job offers</u> to make sure that request is accepted.
- **Payment :** the job provider will determine the amount of money to give the job seeker after finishing work which follow that **job done**.
- **Evaluate job seeker:** finally the job provider must include the evaluation of job seeker and then the job seeker will **check the evaluation**.

## 4.7. State diagram:

This shows how individual objects change their state in response to events. These are represented in the UML using state diagrams. State machine models are dynamic models (Sommerville, Ian, 2010).

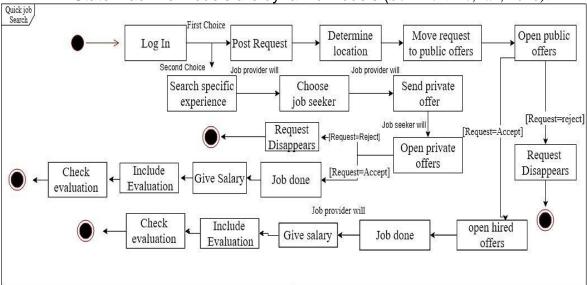


Figure 15: State Diagram.

## **Chapter 5:**

# 5. Implementation and Testing.

#### 5.1. Introduction:

This chapter describes the implementation and evaluation process conducted on the website system. In terms of implementation, the development environment, tools, Development platform, the database used and levels of system users are also discussed. Meanwhile, for testing, the type of testing procedure used and analysis made on the results for the testing procedure is explained.

#### **5.2.** Procedures:

- Procedures describe the most important functions of the website , the following functions are the most important :

**5.2.1.** Admin: Update account function:

Figure 16:Update account admin.

#### **5.2.2.** Job Seeker: update account function

Figure 17: Update job seeker account.

### 5.2.3. Job provider: update account function:

Figure 18: Job provider update account.

## 5.3. Reports:

#### **5.3.1.** Admin database:



Figure 19:Admin database

#### 5.3.2. Job seeker database:



Figure 20:Job seeker database.

#### 5.3.3. Job provider database:

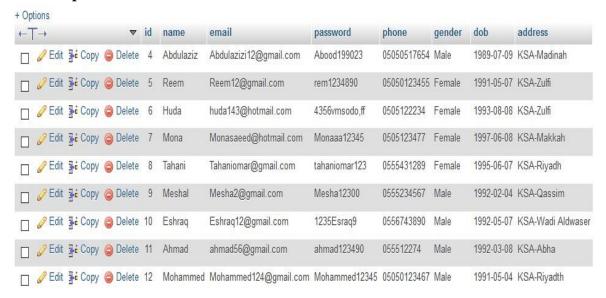


Figure 21: job provider database.

#### **5.3.4.** Acceptance database :

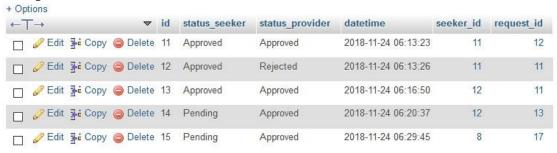


Figure 22: acceptance database.

#### **5.3.5.** Evaluation database:

Figure 23: Evaluation database.

#### **5.3.6.** Experiences database:

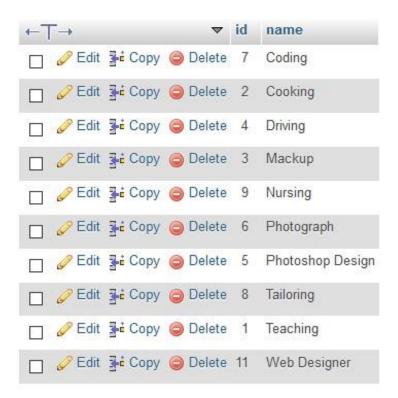


Figure 24: Experiences database.

#### **5.3.7.** Request database:



Figure 25: Request database.

# **5.3.8.** Request experiences:

Figure 26: Request experiences database.

# 5.3.9. Job seeker experiences database:

+ Options seeker_id	experience_id
7	7
7	5
7	1
8	2
8	3
8	9
8	8
9	6
9	5
10	8
11	7
11	2
11	4
11	6
11	5
12	7
12	4
12	3
12	6

Figure 27: Job seeker experinces database.

#### 5.4. Layouts:

In this website we have some very important screen for the user either admin or job seeker or job provider

## **5.4.1.** Contract us interface:



Figure 28: Contract interface.

- For any user include in the site contract us screen is very important if anyone have any problem with the site or any suggestion can contact with the administration of site here.

## **5.4.2.** Mange Experiences interface of admin:

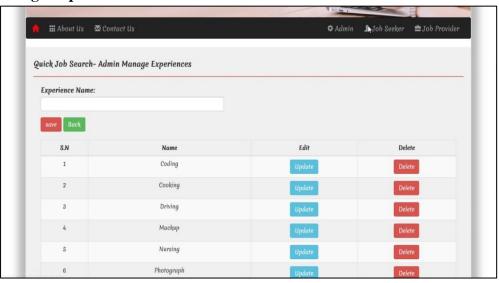


Figure 29: Mange experiences interface.

- One of the most screens for admin is mange experiences where the admin here can add more jobs majors for each interval or in anytime.

#### 5.4.3. Main interface of job provider:

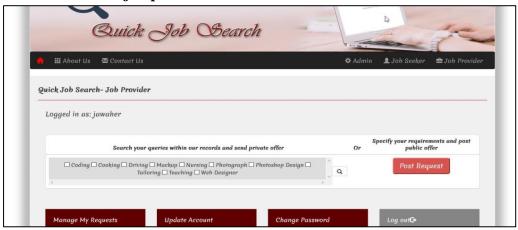


Figure 30: Main interface of job provider.

- Most important interface of job provider is main interface to choose post request or search about specific experience.

#### 5.4.4. Evaluation interface of job seeker:



Figure 31: Evaluation interface of job seeker.

 Here where job seeker can check his evaluation to check from his performance.

#### 5.4.5. Post request interface:

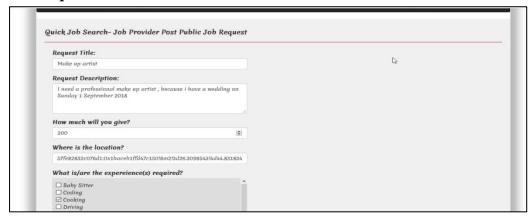


Figure 32: Post request interface.

#### **5.4.6.** Main interface of job seekers:



Figure 33: Main interface of job seeker.

## 5.4.7. Accept/Reject requests:

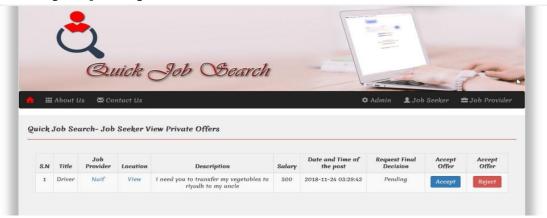


Figure 34:Accept/Reject private offers.

#### 5.4.8. Public offers

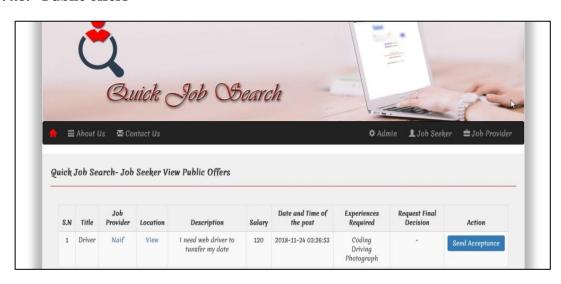


Figure 35: Public offers of job seeker.

## 5.5. Reports Layouts:

## **5.5.1. Admin:** Log in of admin screen:



Figure 36: Log in of admin.

#### **5.5.2.** Delete one account of job provider by admin screen :

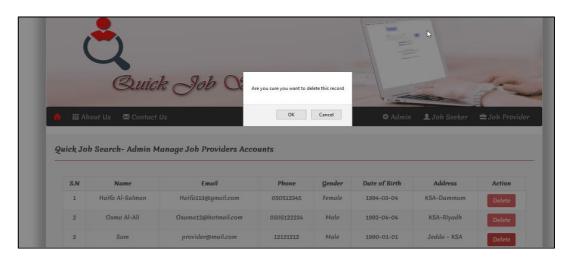




Figure 37: Delete job provider account interface

## **5.5.3.** Add new experience screen:

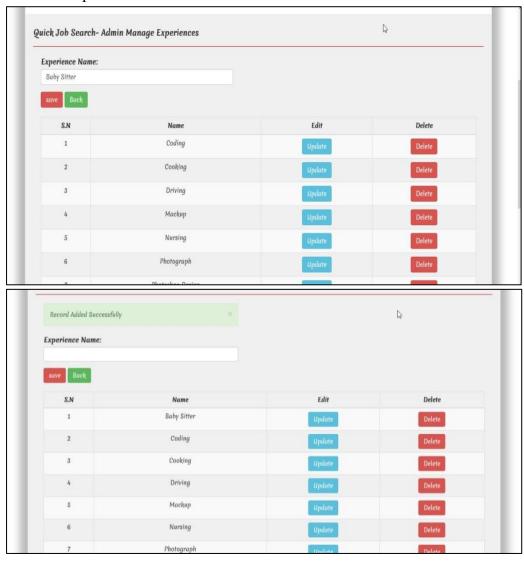
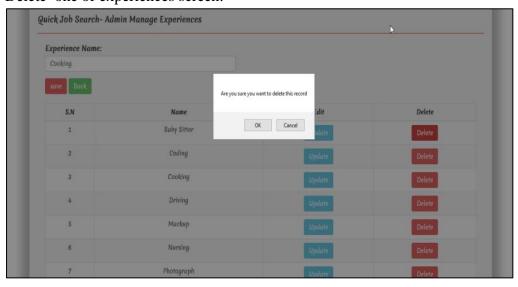


Figure 38: Add new experince.

## **5.5.4.** Delete one of experiences screen:



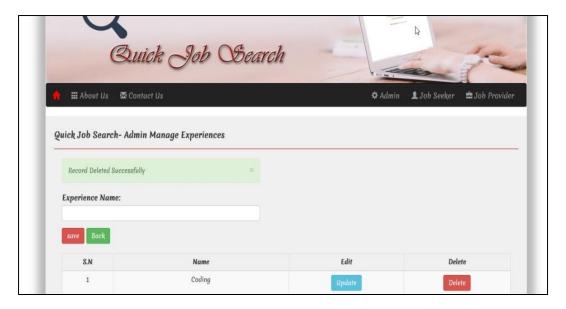


Figure 39:Delete one of experiences

## **5.5.5. Job provider:** Message after registration of job provider screen :

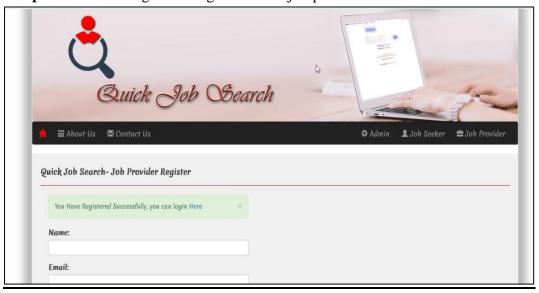


Figure 40: Message of registration interface.

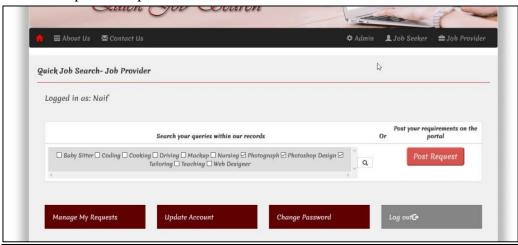
## **5.5.6.** Post request screen:

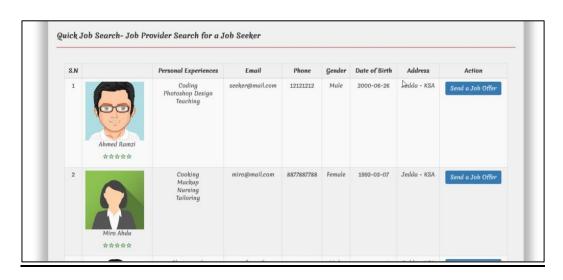




Figure 41: After post request interface.

#### **5.5.7.** Search specific experience screen:





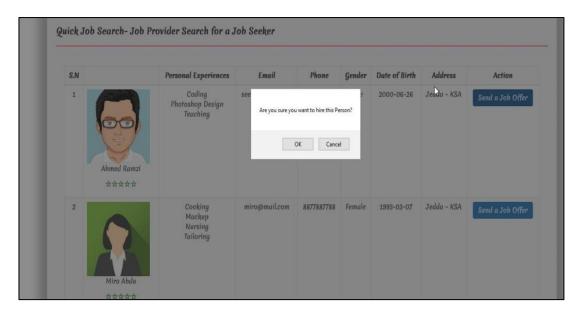


Figure 42: Search specific experience

#### **5.5.8.** Send private offer screen:

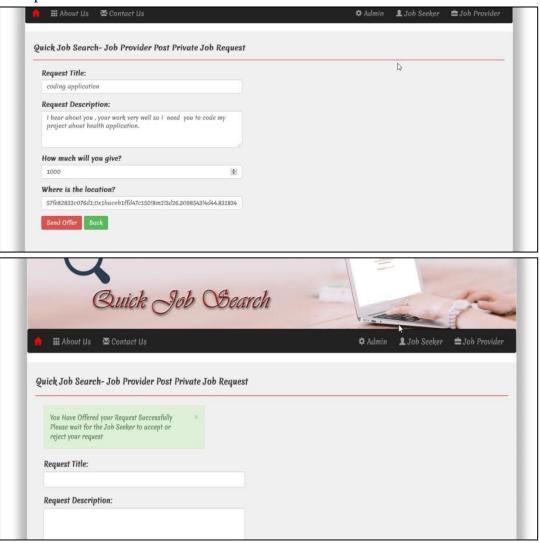


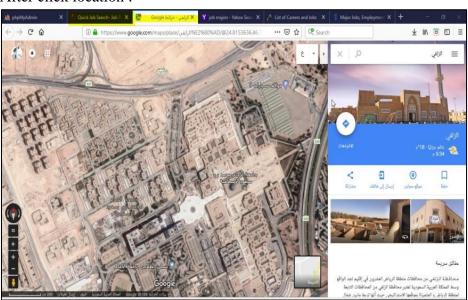
Figure 43:Send private offer interface.

## **5.5.9.** Mange requests of job provider:



Figure 44: Mange requests of job provider.

- After click location:



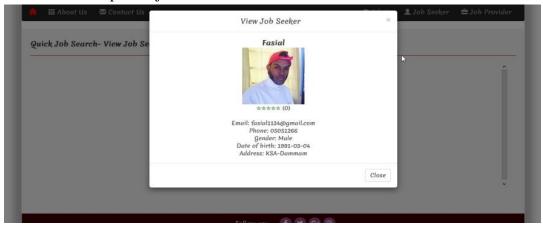
- After click acceptance of request :



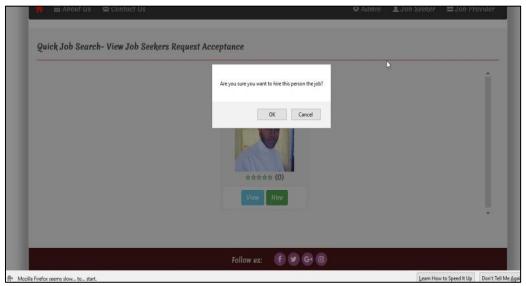
- In case someone accept the request:



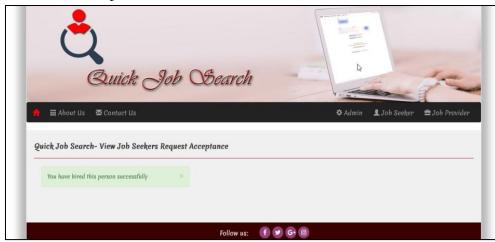
- Click view of profile job seeker:



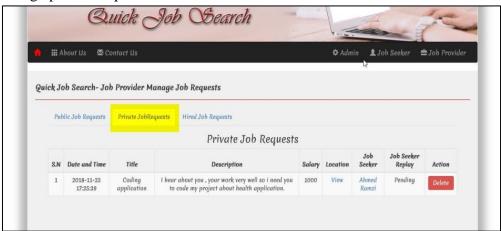
When click hire:



- Click ok on hire job seeker:



- Mange private requests:



- Here where the job provider can view private offers which sent by job provider to specific job seeker .
- Hired job requests:



## **5.5.10.** Evaluate job seeker:

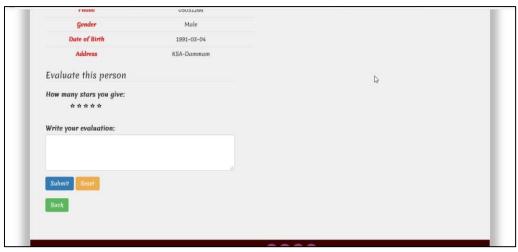


Figure 45: Evaute job seeker interface.

- Here where job provider can evaluate job seeker



- Here after job provider evaluates job seeker by give him stars/5 with notes.
- After click reset

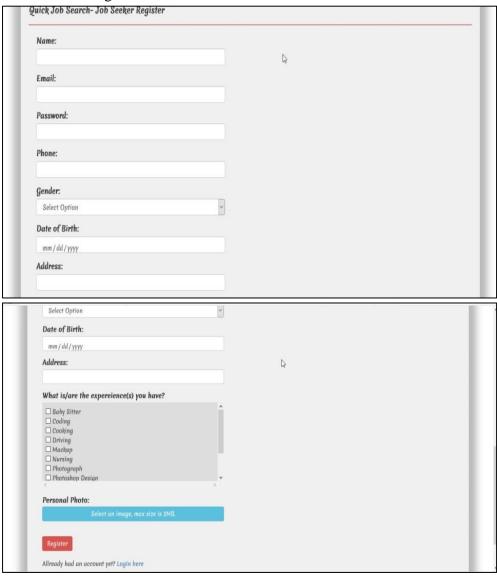


- After the job provider click reset the written will be removed to rewrite.

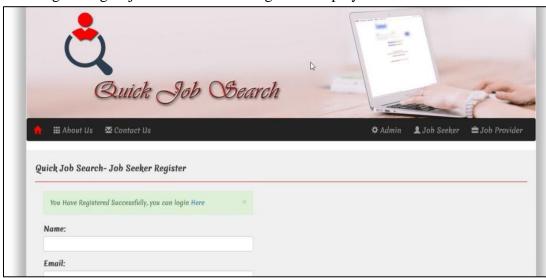
- After click submit of evaluation :



## **5.5.11. Job seeker :** Registration :



- After registering of job seeker this message will display.



## **5.5.12.** Public offers of job seeker interface :

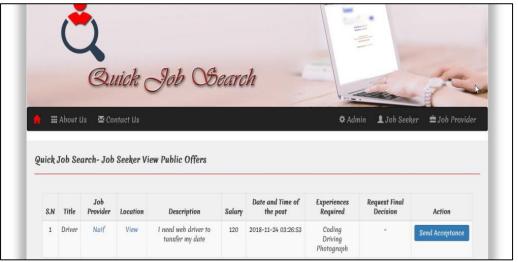
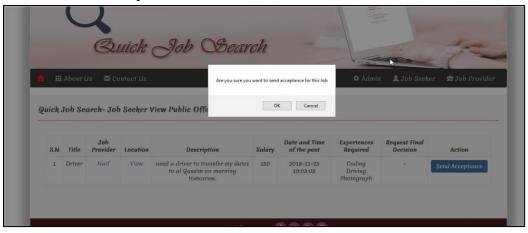
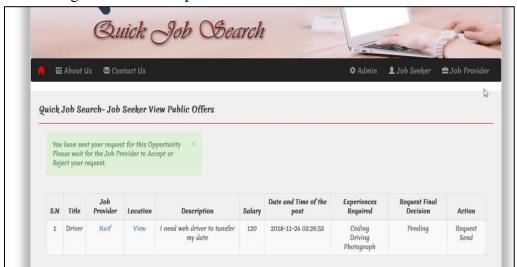


Figure 46: Public offers of job seeker interface.

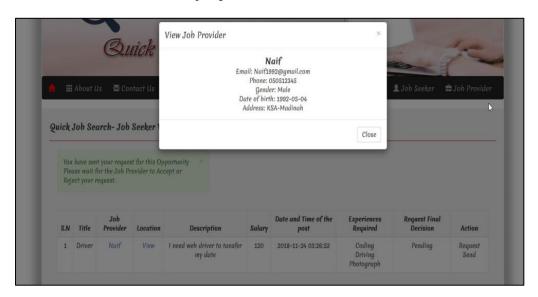
- After click public offers by job seekers it will display the list of jobs based on keywords of experiences of job seeker.
- After click send acceptance :



- The message after send acceptance.



- After click the name of job provider:



**5.5.13.** Private offers of job seekers interfaces:

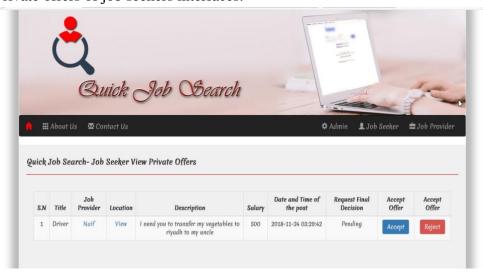
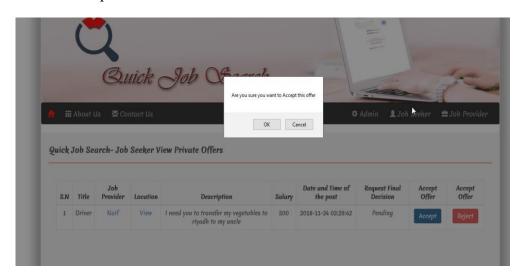
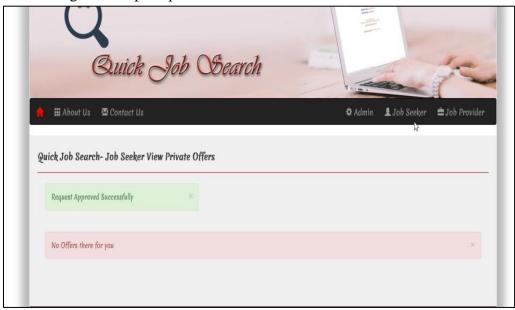


Figure 47: Private offers of job seeker interface.

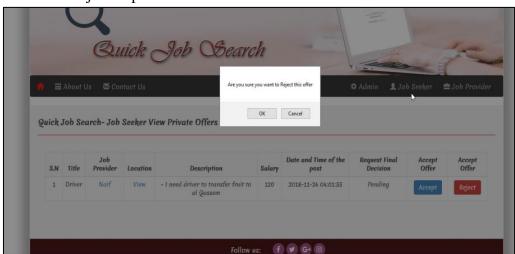
- After click accept:



- The message of accept of private offer:



- After click reject of private offers :



- The message of reject of private offers:



**5.5.14.** My evaluation interface of job seeker:

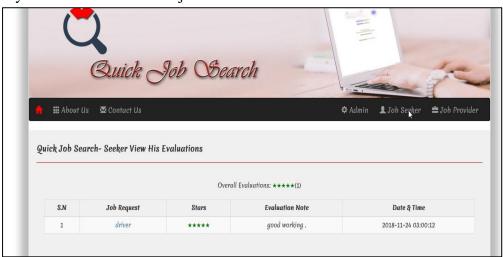
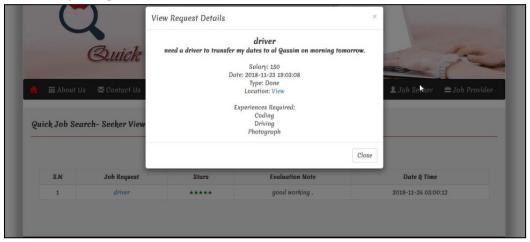


Figure 48: My evaluation interface.

- After click job request (driver)



## **Chapter 6**

#### 6.1. Conclusion and Future work

This Quick job website comprehensively provides a unique service for people (job seekers) who want quick jobs with fast and easy payment. Registration on this site to find quick jobs is easy. There is no need to submit a contract or be restricted to a particular appearance. On this site you can also register as a job provider to search for an expert in a specific field (Job seeker) to perform some tasks for you in this field. This website will make job search much easier, especially for university students and job seekers, or those looking for experts in different fields for different categories.

Implement a web portal which provides easy way of searching jobs with different criteria depending upon education and expertise in their respective fields and spread business locally by providing required solutions and help society to provide quick work environment, mainly local people.

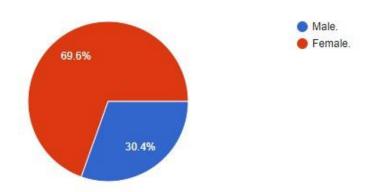
## **6.2.** References:

- [1] Ambler, Scott W. *The object primer: Agile model-driven development with UML 2.0.* Cambridge University Press, 2004.
- [2] Dennis, Alan, Barbara Haley Wixom, and David Tegarden. Systems analysis and design: An object-oriented approach with UML. John wiley & sons, 2015.
- [3] Fincher, Sally, Marian Petre, and Martyn Clark, eds. *Computer science project work: principles and pragmatics*. Springer Science & Business Media, 2001.
- [4] Fowler, Martin. *UML distilled: a brief guide to the standard object modeling language*. Addison-Wesley Professional, 2004 Sommerville, Ian. *Software engineering*. New York: Addison-Wesley, 2010.
- [5] Hull, Richard, and Roger King. "Semantic database modeling: Survey, applications, and research issues." *ACM Computing Surveys (CSUR)* 19.3 (1987): 201-260.
- [6] Lum, Vincent Y., et al. "1978 New Orleans data base design workshop report." *Very Large Data Bases, 1979. Fifth International Conference on.* IEEE, 1979.
- [7] Romiszowski, Alexander Joseph. Designing instructional systems: Decision making in course planning and curriculum design. Routledge, 2016.
- [8] SELIC, B. "Using UML for Modeling complex real-time systems." *Lecture notes in computer science* (1998): 250-260.
- [9] Sowa, John F., and John A. Zachman. "Extending and formalizing the framework for information systems architecture." *IBM systems journal* 31.3 (1992): 590-616.
- [10] Tibor, Balogh, Viliam Fedak, and František Durovský. "Modeling and simulation of the BLDC motor in MATLAB GUI." *Industrial Electronics (ISIE)*, 2011 IEEE International Symposium on. IEEE, 2011.
- [11] WampServer. (n.d.). Retrieved from <a href="https://sourceforge.net/projects/wampserver/">https://sourceforge.net/projects/wampserver/</a>
- [12] Free flowchart maker and diagrams online. (n.d.). Retrieved from <a href="https://www.draw.io/">https://www.draw.io/</a>

## 6.3. Appendix A

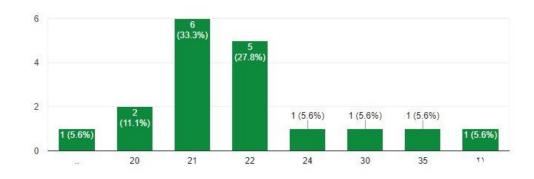
## Determine your gender

23 responses

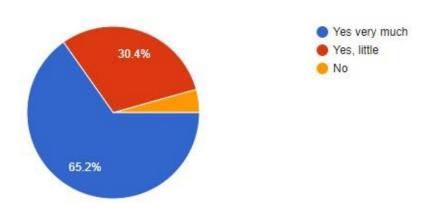


## How old are you?

18 responses

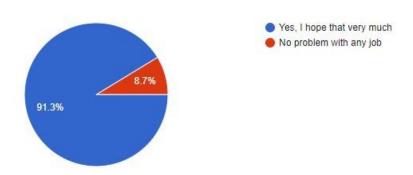


## Are you having trouble to get a job?



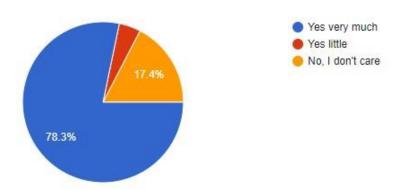
## Would you like to choose a suitable job for you?

23 responses

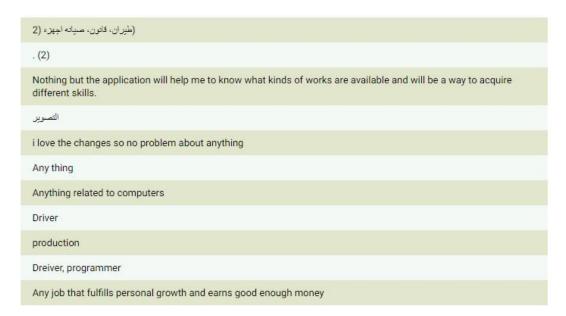


## Do you want chance to work in different fields of jobs?

23 responses

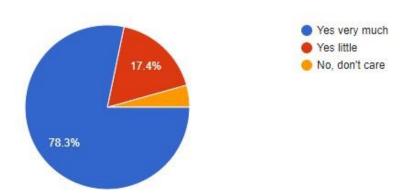


If your answer was 'Yes' in previous question please write the types of jobs which you want to work according to your gender type.



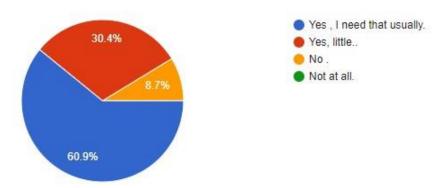
## Do you want to get a money from Quick and part job?

23 responses

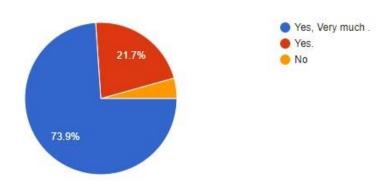


Are you looking for expert in a particular field to accomplish your mission?

23 responses

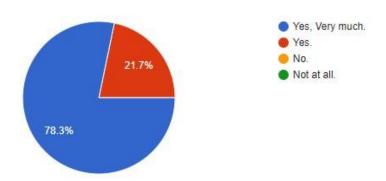


Do you want to develop your skills in a particular discipline by performing tasks for others related to this field as a part job and get money after that ?



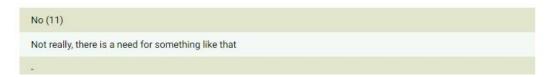
# Do you think having a website that provides previous services will be useful and effective?

23 responses



Does any website provide part time job like cook, quran tutor, designer,makeup artist ..etc. maid in your home town ?If 'yes' please mention the website.

13 responses



Write your suggestions or your opinion about that .

