



Sultan Qaboos University, College of Science  
Department of Computer Science  
COMP3702: Principles of Web Applications

# Job Connect

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## 1. Introduction:

There are about one hundred thousand job seekers in Oman and the number is dramatically increasing. The government and the citizens are trying to solve the problem but no efficient solution so far. The hashtag of Omani job-seekers is frequently trending in Oman tweeter for almost 4 years. Job seekers are repeatedly organizing manifestation in front of the Manpower Ministry and this is causing some sensitive consequences that we all know. We believe that the problem is related to social and cultural aspects of the Omani society, so by this platform, we will try to advertise some good principles and concepts of responsible workers and successful leaders while the clients are browsing it. However, the main purpose of the platform is to connect companies and job seekers to simplify the process of job and candidate seeking. We believe that this platform will mitigate the impact of the problem. This platform allows companies to register their information and offer jobs. On the other hand, it allows job seekers or even employers to register and search for the companies and job offers. There is no such local platform available in the market. Our platform can be expended to cover all gulf countries due to the cooperation in the gulf area.

## 2. Project Objectives:

The objectives to choose “job connect” to be our project as follow:

- We believe the job seekers problem is a serious problem we face in Oman and it will increase in future. So in this project, we study the problem and offer some solutions.
- Collect all traditional and modern job advertisements in one easy and reliable web application.
- Make a good connection between job seekers and organizations.
- Build a general application that can be used for matching between people and originations.
- Implement our skills in C# to build a real-life web application that can be useful for society.
- Apply our knowledge and skills to solve daily life problems.
- Increase our teamwork skills and Be familiar with C# working environment.
- Develop our programming skills to build an efficient application.

## 3. Motivation:

The increasing number of job seekers and nonexistence of such a local platform that connect companies to job seekers are the two main reasons for choosing this application. Moreover, we are seriously looking for different solutions that mitigate the problem of unemployment in Oman. By the completion of the application, we will be able to start our campaigns for promoting the application and we will make money by looking for governmental sponsors or advertising for different companies in the web application. We hope that our work sees the lights in the near future and we achieve our objectives.

## 4. Application Requirements:

In order to provide a powerful and useful application, it must meet some requirements. We divide these requirements into functional and nonfunctional requirements.

### 4.1. Functional requirements

Functional requirements are the specified functionalities of Job Connect application:

- Normal users and companies can register into the system and edit their profile (personal, contact, security information).
- Normal users can add their CVs to their profile.
- Companies can offer jobs by entering job details and specifications.
- Companies can remove their jobs offer whenever they want.
- Normal users or company can search for other users and companies by their name or specialization.
- Normal users can apply for the offered jobs by just clicking an apply button under the job offer.
- Companies receive a list of the candidates that applied to their jobs offers.
- Companies or normal users can delete their account.

### 4.2. Nonfunctional requirements

Nonfunctional requirements are certain criteria we consider them when building the application

- Security: "Job Connect" contains critical information about persons, companies, jobs, and job applicants. Therefore, we don't want to lose the trust of our clients or let any attackers play with the data. Moreover, the user must agree on the policies of the platform in order to be able to register.

- Simplicity: We will deliver a smooth and nice experience to the “Job Connect” visitors and simplicity of the backend and frontend design is the key.
- Maintainability: Since we care on our clients and visitors by providing simple design, this will help us to maintain maintainability of the platform. Hence, any problem occurs to the platform will be addressed successfully as fast as possible.
- Usability: the user should have ease of learning and using the application.

## 5. Application design:

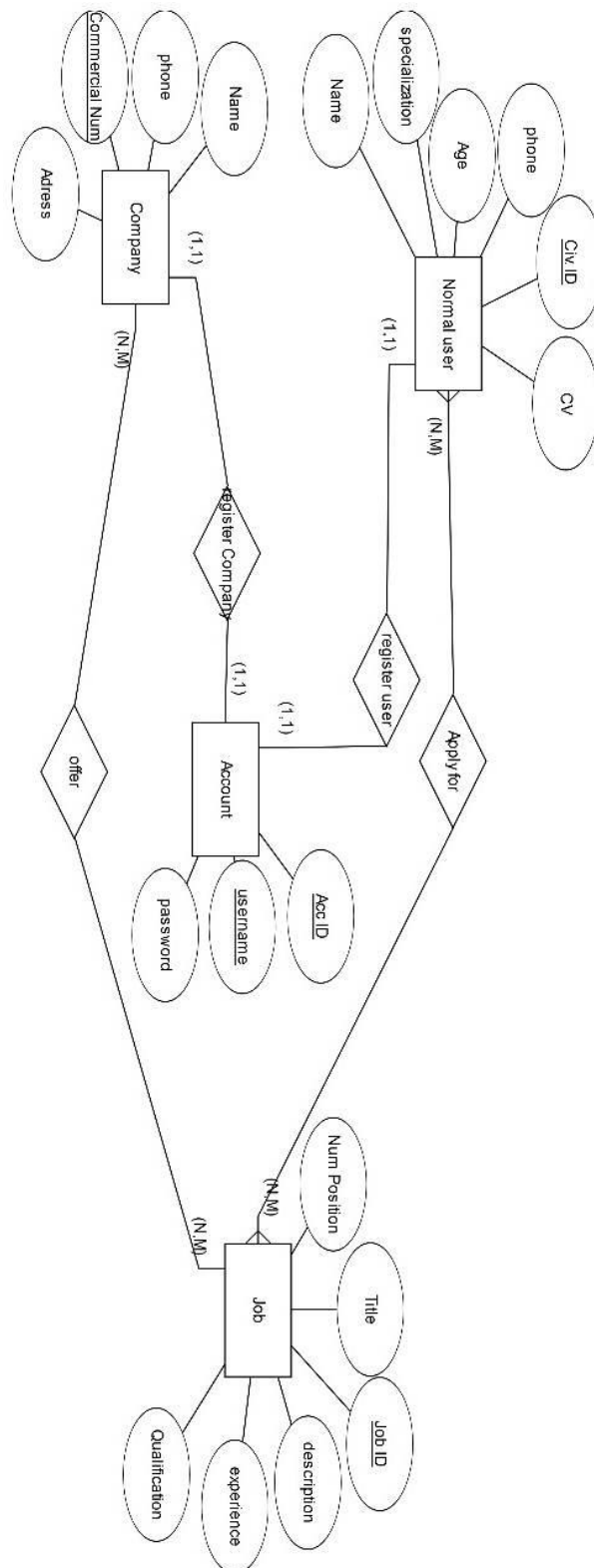
In this section, we will express the details about our application database entities and how they will interact with each other. However, the design might be changed as we are developing the project depending on the requirements because we use Agile software development methodology.

- The following table shows the pages that we will develop in our project with its functionality:

*Table 1: Pages and their functionalities*

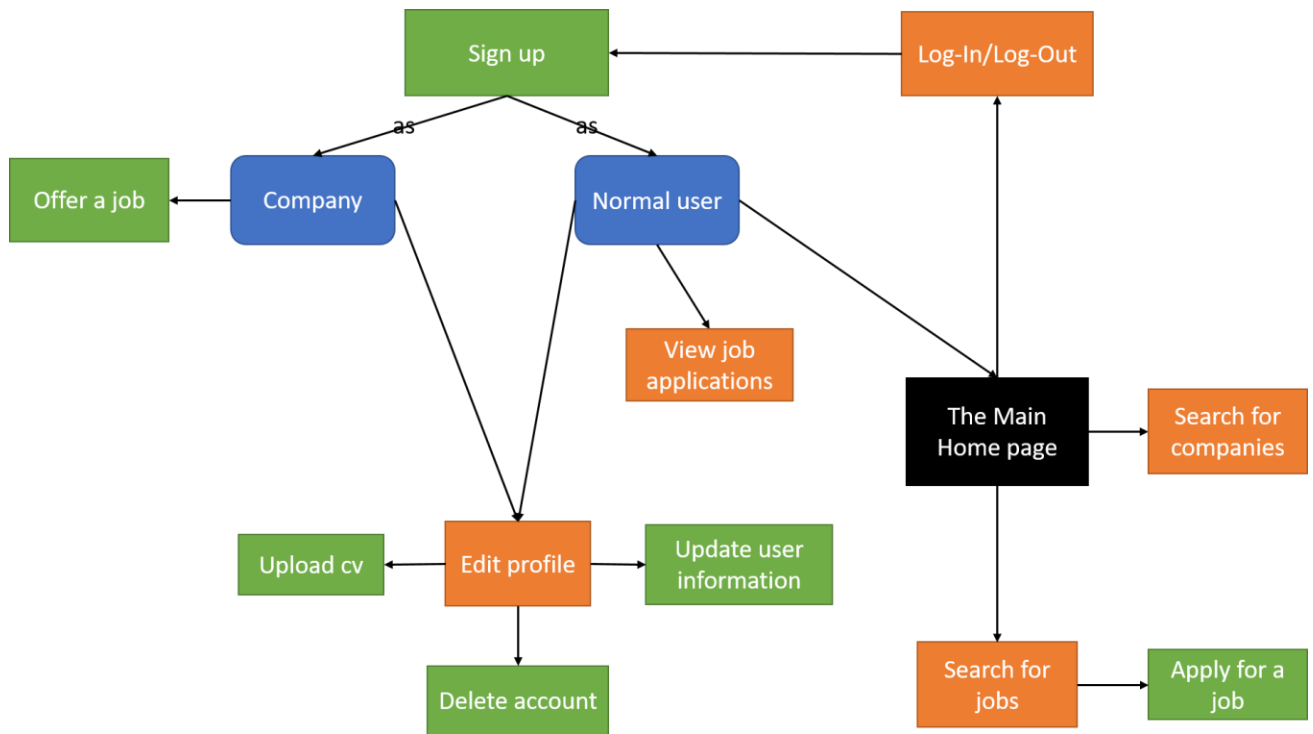
Page name	Description of functionality
Home	Displays most recent jobs and some ads.
Log In	Enables users (either companies or normal users) to login into their account given their username and password.
Sign Up	Enables users to create their account either as a company or as a normal user.
Update Company Profile	Update profile information or delete the account
Update Normal User Profile	Update profile information, upload cv, or delete the account.
List Jobs	Displays a list of all jobs title and the user can filter these jobs according to the job domain.
List Companies	Display a list of all companies.
Offer a job	A form that is filled and submitted by the company to offer a job.
View Job details	Display the details of a specified job. Moreover, it includes an apply button in order to let registered users to apply.
Admin Control Page	Only admins can access this page which view all companies, users, and jobs where the admin is able to delete any entry.

➤ The following is the entity-relation diagram for the application database:





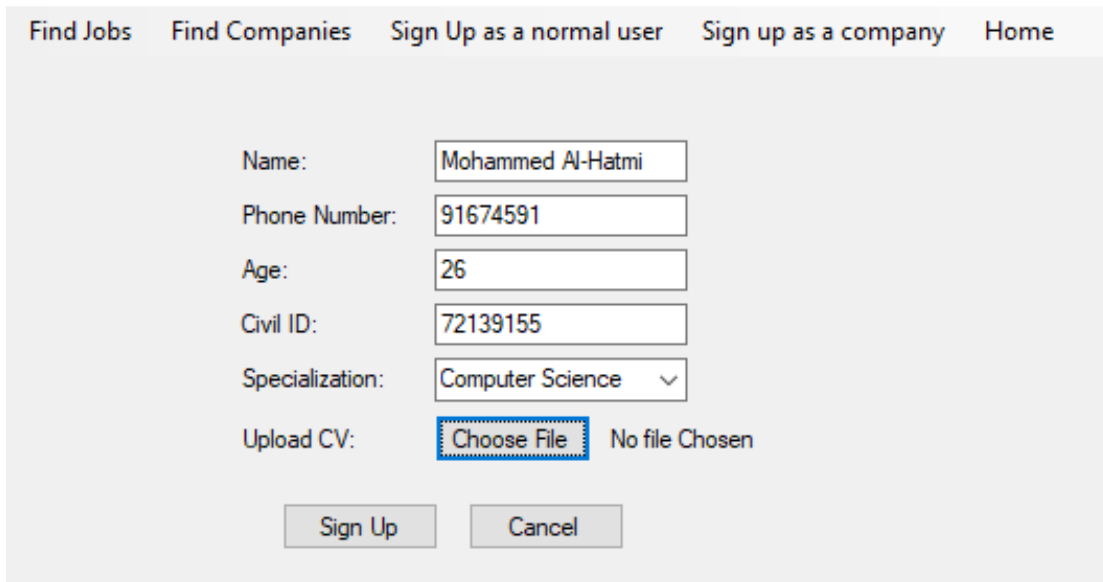
- The following is a flowchart that shows the flow of the events when a user interacting with the application:



## 6. Prototype:

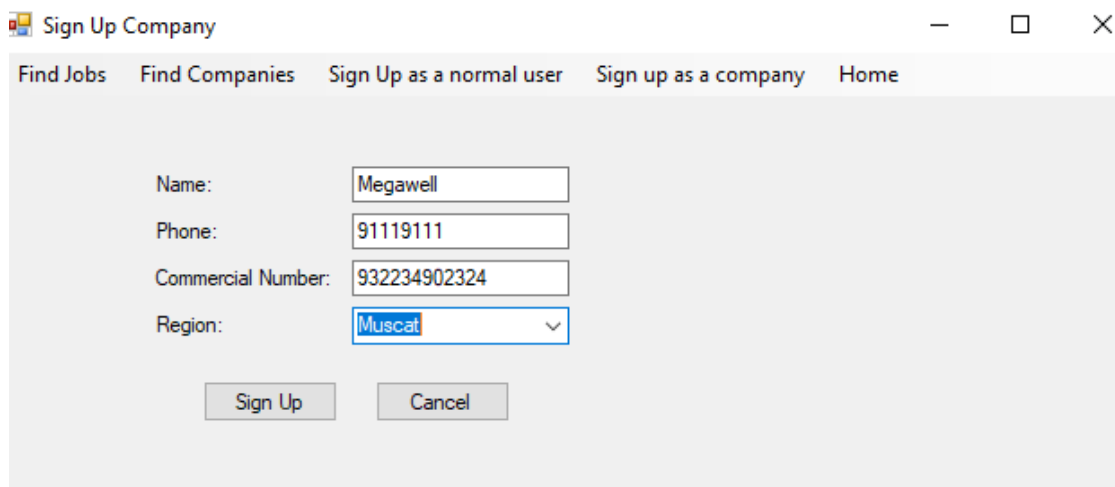
in this section we will preview C# prototype (it's not the final version of the project). This prototype will have a punch of modifications through the different project developing phases. These screen shots are displayed to give an idea about the project functionality and they do not represent the final product of our project.

### Sign Up Normal User



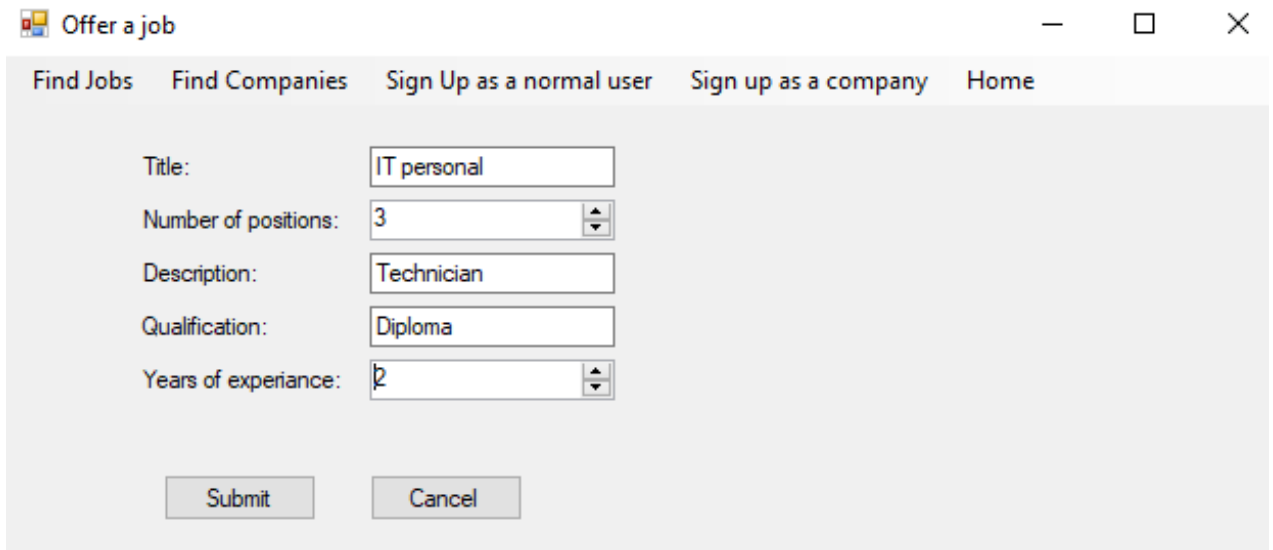
The screenshot shows a web application window titled "Sign Up Normal User". The navigation bar includes links for "Find Jobs", "Find Companies", "Sign Up as a normal user" (which is active), "Sign up as a company", and "Home". The form contains the following fields: "Name:" with the value "Mohammed Al-Hatmi", "Phone Number:" with "91674591", "Age:" with "26", "Civil ID:" with "72139155", and "Specialization:" with a dropdown menu showing "Computer Science". There is an "Upload CV:" section with a "Choose File" button (highlighted with a red dashed border) and the text "No file Chosen". At the bottom are "Sign Up" and "Cancel" buttons.

Figure 1: Sign Up normal user page



The screenshot shows a web application window titled "Sign Up Company". The navigation bar includes links for "Find Jobs", "Find Companies", "Sign Up as a normal user", "Sign up as a company" (which is active), and "Home". The form contains the following fields: "Name:" with the value "Megawell", "Phone:" with "91119111", "Commercial Number:" with "932234902324", and "Region:" with a dropdown menu showing "Muscat". At the bottom are "Sign Up" and "Cancel" buttons.

Figure 2: Sign Up company page



Offer a job

Find Jobs Find Companies Sign Up as a normal user Sign up as a company Home

Title:

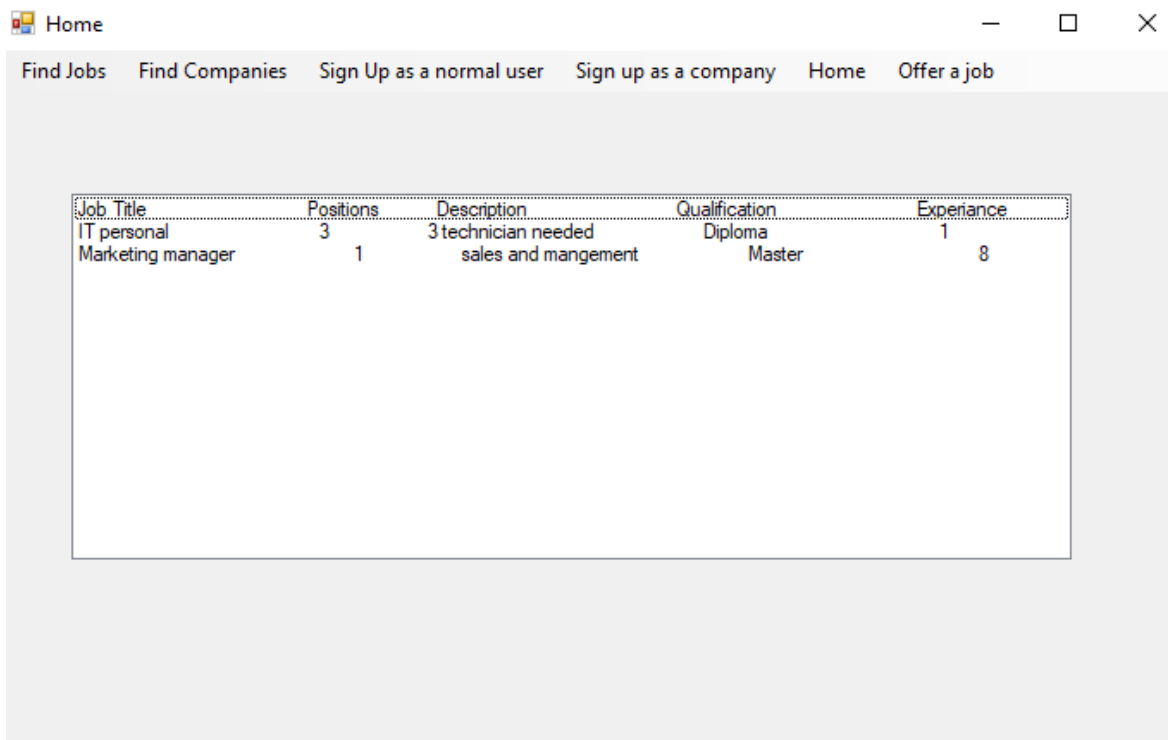
Number of positions:

Description:

Qualification:

Years of experience:

Figure 3: Offer job page



Home

Find Jobs Find Companies Sign Up as a normal user Sign up as a company Home Offer a job

Job Title	Positions	Description	Qualification	Experience
IT personal	3	3 technician needed	Diploma	1
Marketing manager	1	sales and mangement	Master	8

Figure 4: Home page

Find Jobs

Find Jobs Find Companies Sign Up as a normal user Sign up as a company Home

Job Title:

Job Title	Positions	Description	Qualification	Experiencance
IT personal	3	3 technician needed	Diploma	1

Figure 5: Search for jobs page

Find Companies

Find Jobs Find Companies Sign Up as a normal user Sign up as a company Home

Company Name:

Not found

Figure 6: Search for company page

## 7. Snapshots:

This section illustrates the work done in part 3:

JobConnect web application has four types of users: Guest, registered normal users, registered companies, and the admin. For each user there is a certain of pages he/she can access. Hence, the pages are divided into four main categories: pages are accessed by all users, pages accessed by only normal users, pages accessed by only company users, and pages accessed by only the admin. Next picture shows the solution explorer of the project.

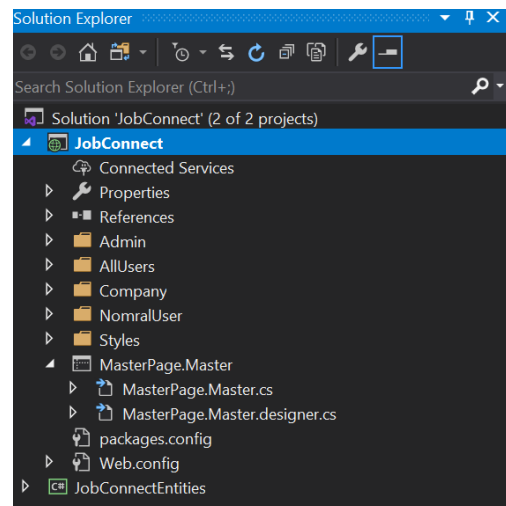


Figure 7: project solution explorer.

Normal users and companies can sign up from the sign-up pages as shown in the picture below.

The image shows a web application interface for 'Job Connect'. The header is teal with the text 'Job Connect' and 'We Care'. Below the header is a sign-up form. On the left is a sidebar with links: 'Home', 'Jobs', 'Companies', 'Log In', and 'Sign Up'. The sign-up form has fields for 'Type:', 'Name:', 'Phone:', 'User Name:', and 'Passowrd:'. The 'Type:' field is a dropdown menu with 'Normal User' selected. A blue arrow points to this dropdown with the text 'From this drop-down list a user can specify his/her type'. Below the form is a 'Sign Up' button. On the right is a banner image for 'OMAN, Your Best Experience' featuring a person standing on a rocky shore looking at a large, ornate brass oil burner.

Figure 8: Sign Up page.

Immediately after the sign-up, the user is redirected to update profile page in order to complete his/her information. As shown in the pictures in the next page.

## Job Connect


We Care

[Home](#)  
[Jobs](#)  
[Companies](#)  
[Offer a job](#)  
[My Jobs](#)  
[Update Profile](#)  
[Log Out](#)

The profile is updated successfully.

Company Name:	Oman Oil Company
Contact Number:	24353535
User Name:	Oman Oil Comp.
Password:	
Commercial ID:	223343
Region:	Muscat ▼

Update



## Job Connect

We Care

[Home](#)  
[Jobs](#)  
[Companies](#)  
[Update Profile](#)  
[Log Out](#)

The profile is updated successfully.

Name:	Salim Salah
Phone:	94387422
User Name:	salim
Password:	user
Date of birth:	06/28/1992
Civil ID:	72133159
Specialization:	Computer Science

Update




Figure 9: Update profile page.

If you are signed as a company, you can offer a job, view all jobs, view all companies, view all jobs you have offered, and view applicant to you jobs (this will be implemented in the next version). Next, we show pictures that illustrate all the mentioned functionalities. Please read the caption of each picture.

## Job Connect

We Care

[Home](#)  
[Jobs](#)  
[Companies](#)  
[Offer a job](#)  
[My Jobs](#)  
[Update Profile](#)  
[Log Out](#)

Title:	<input type="text" value="Electrical Engineer"/>
Positions:	<input type="text" value="10"/>
Description:	<div style="border: 1px solid #ccc; padding: 5px; min-height: 40px;">                     We need a qualified electrical engineer to work in <span style="color: red;">sahara</span> sites.                 </div>
Qualification:	<input type="text" value="Diploma"/>
Experiace:	<input type="text" value="5"/>
<input type="button" value="Submit"/>	




Figure 10: Offer a job page.

## Job Connect

We Care

[Home](#)  
[Jobs](#)  
[Companies](#)  
[Offer a job](#)  
[My Jobs](#)  
[Update Profile](#)  
[Log Out](#)

Title:	<input type="text" value="Marketing manager"/>
Positions:	<input type="text" value="1"/>
Description:	<div style="border: 1px solid #ccc; padding: 5px; min-height: 40px;">                     We need a marketing manager to work in the head office in Muscat.                 </div>
Qualification:	<input type="text" value="Master"/>
Experiace:	<input type="text" value="10"/>
<input type="button" value="Submit"/>	

Job has been added successfully.




Figure 11: Offer a job page



Figure 12: View all jobs in a list box (Jobs are searched by company name).



Figure 13: View all jobs in a list box (Jobs are searched by a keyword)



If you press View Job details button in the previous page, you will get this page shown below.

The screenshot shows a web browser window with the URL `localhost:44308/AllUsers/ViewJobDetailsPage.aspx?jobID=9`. The page has a teal header with the text "Job Connect" and "We Care". On the left is a sidebar with links: Home, Jobs, Companies, Offer a job, My Jobs, Update Profile, and Log Out. The main content area contains a form with the following fields:

Title:	Electrical Engineer
Number of positions:	10
Descriptions:	We need a qualified electrical engineer to work in sahara sites.
Qualification:	Diploma
Years of experience:	5
Company Name:	Oman Oil Comp.

On the right is an advertisement for "OMAN" featuring a large oil derrick. At the bottom of the page, it says "THIS WEBSITE IS FOR YOU BECUASE WE CARE."

Figure 14: View job details page accessed by a company user.

However, if a normal user have selected a job and pressed View Job Details button, an apply button will be shown as well.

This screenshot is identical to Figure 14, showing the same job details form and sidebar. The only difference is that an "Apply" button is now visible at the bottom of the form, circled in red. The rest of the page, including the header, sidebar, advertisement, and footer, remains the same.

Figure 15: View job details page accessed by a normal user.

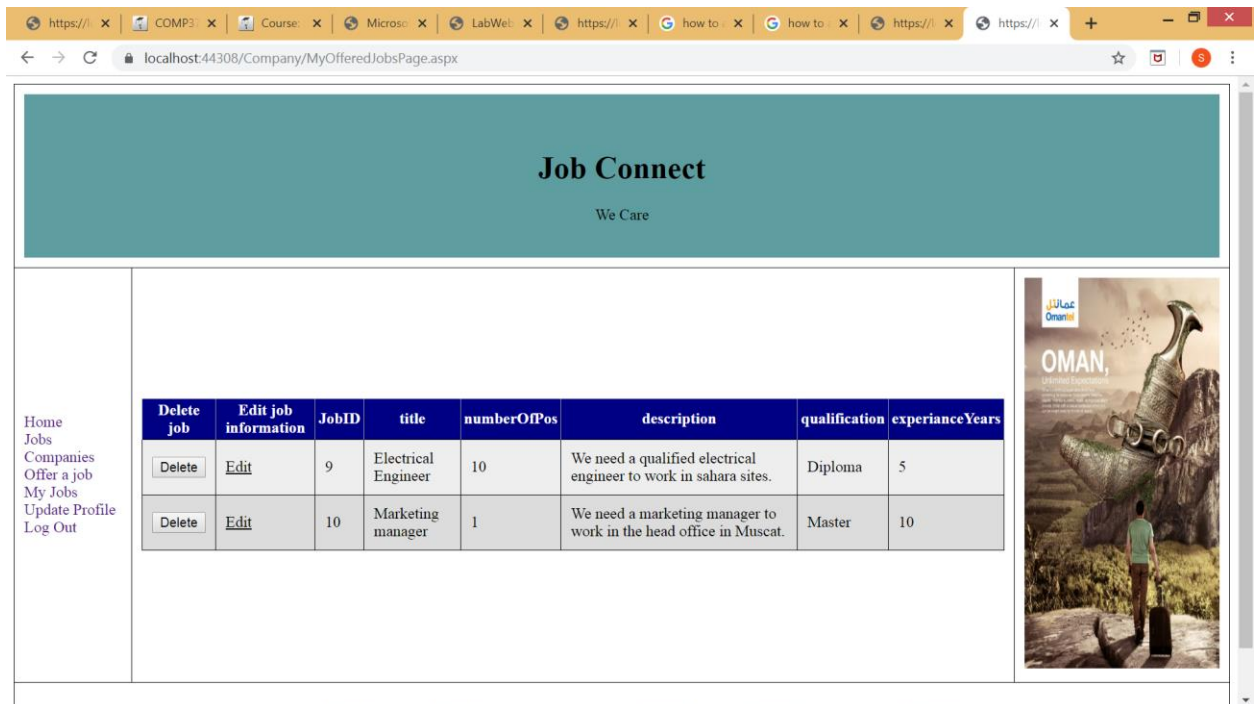


Figure 16: A company user can view its offered jobs in a grid view. It can edit and delete any job (deletion process is restricted to some rules).

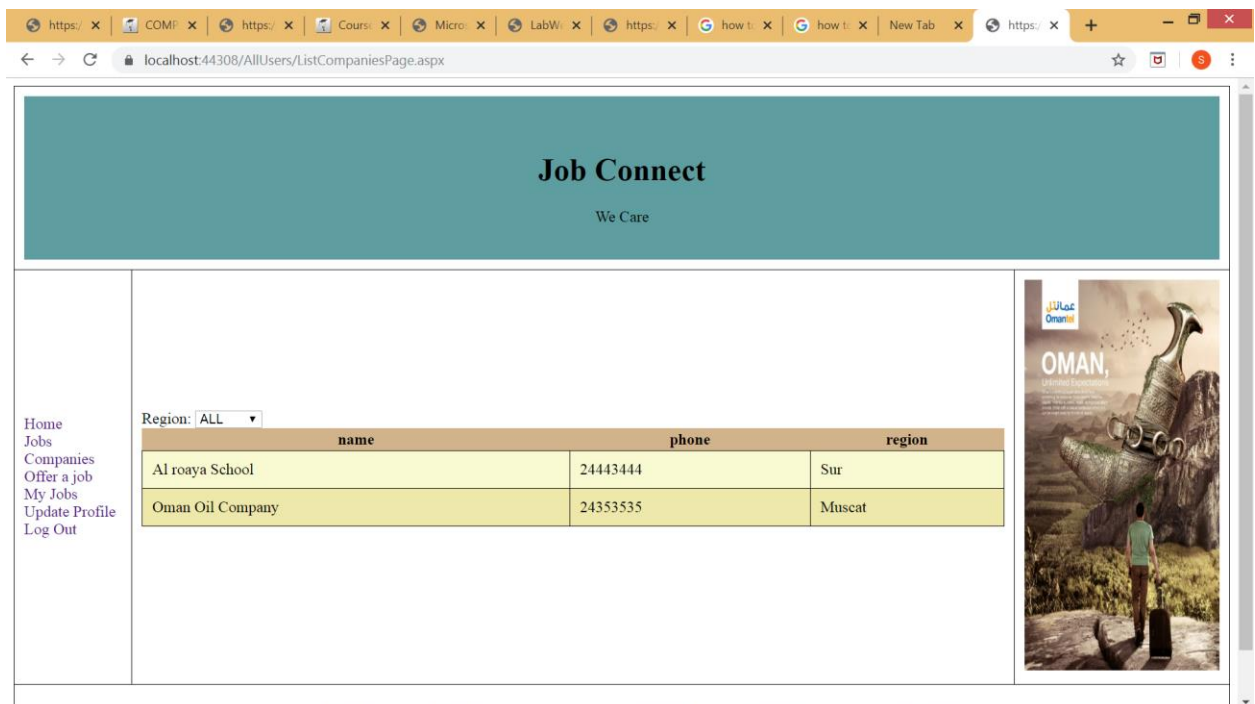


Figure 17: Any user type can view the list of companies.

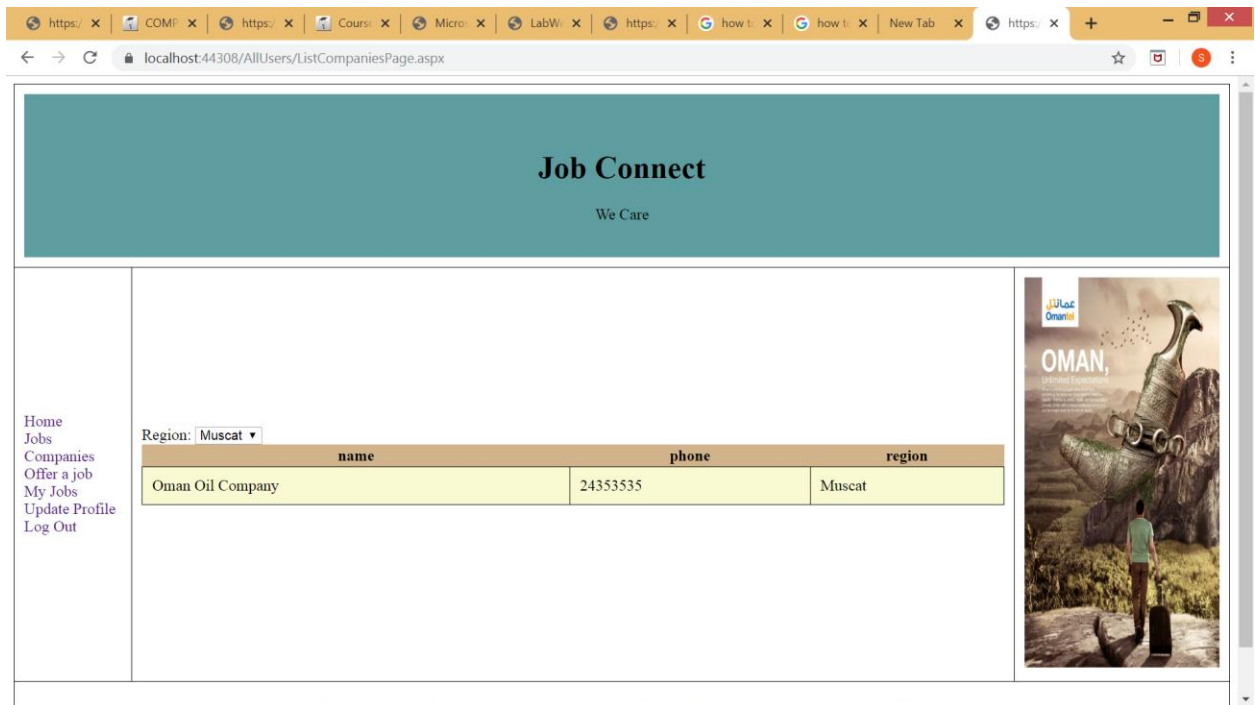


Figure 18: View the list of companies with changing the region drop down list to Muscat region.

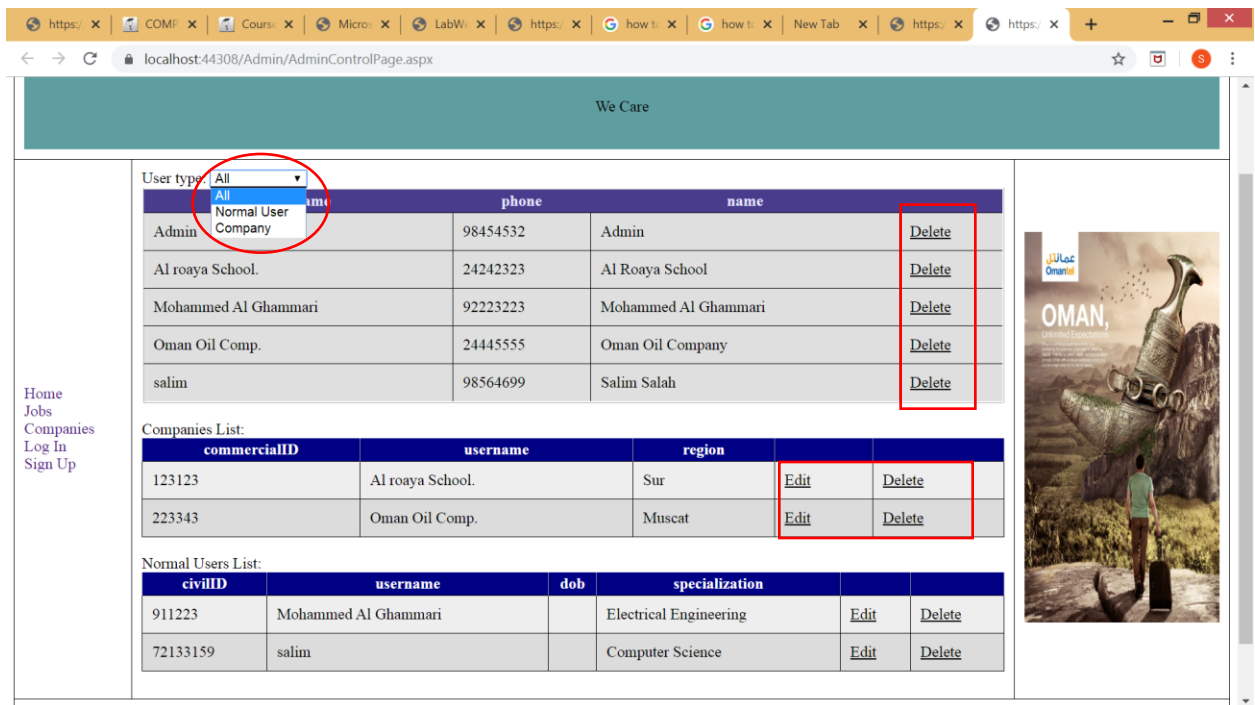


Figure 19: Admin control page. shows the list of users.

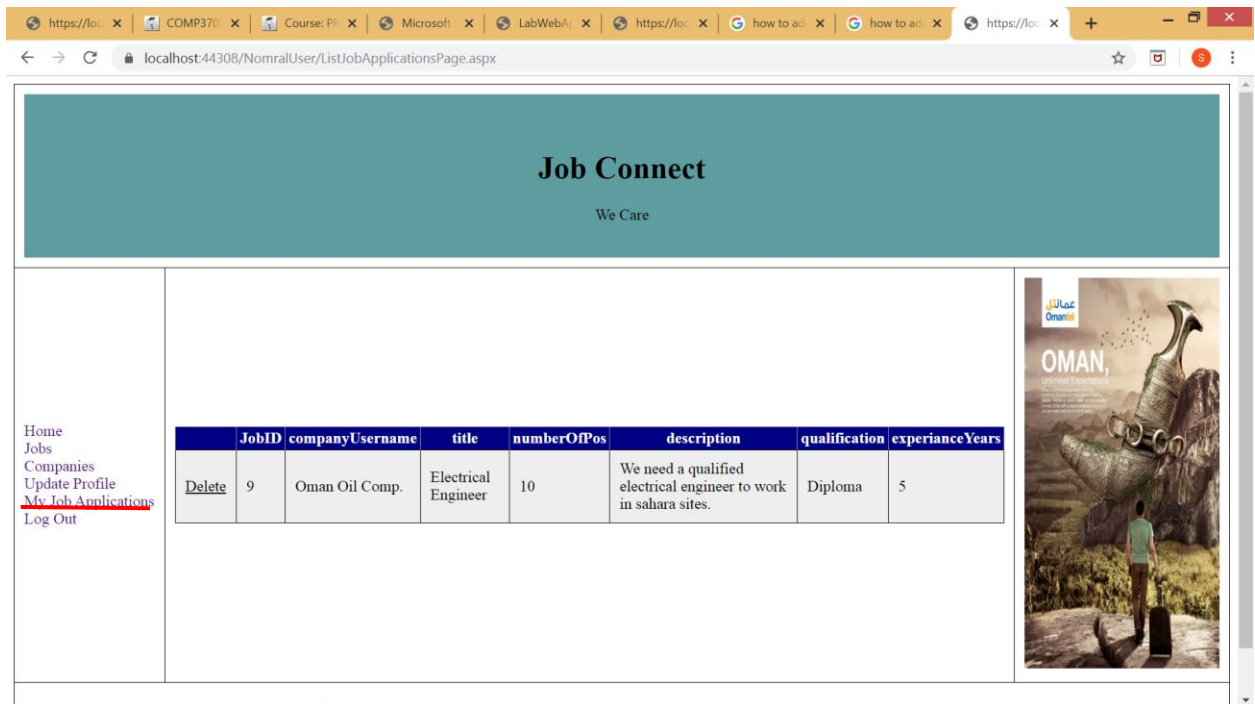


Figure 20: A normal user can view all the jobs he applied for.

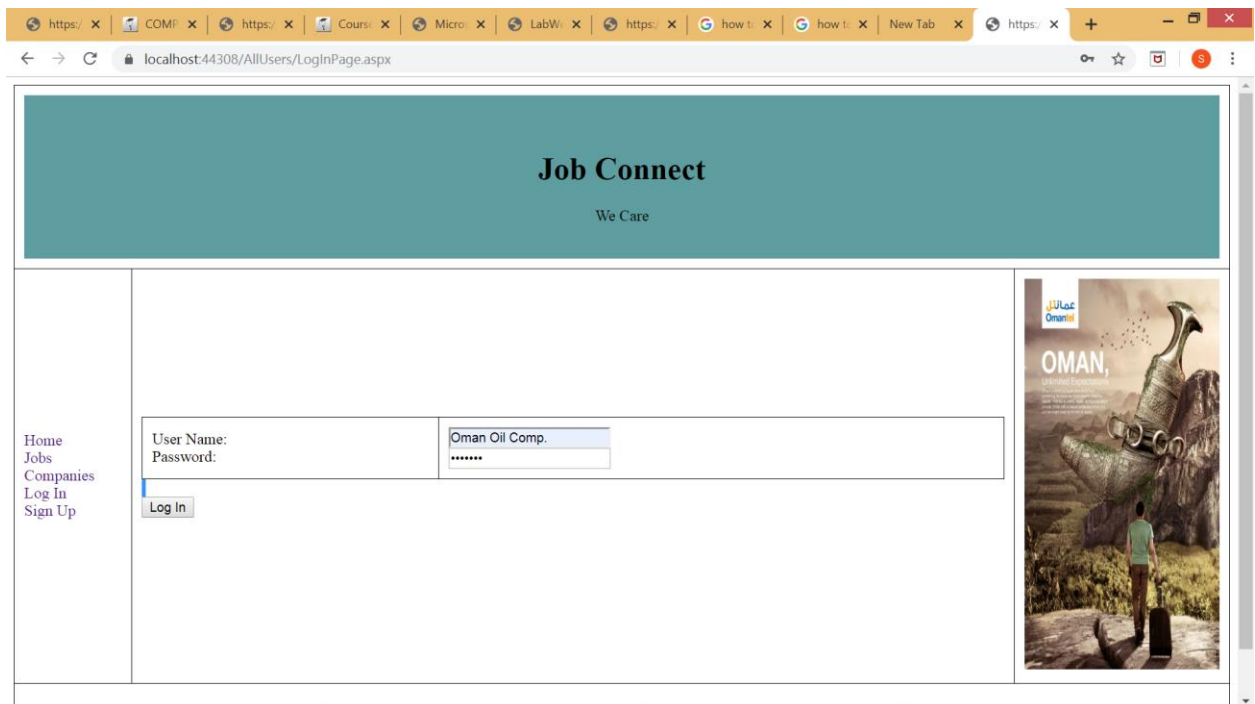


Figure 21: Log In page.