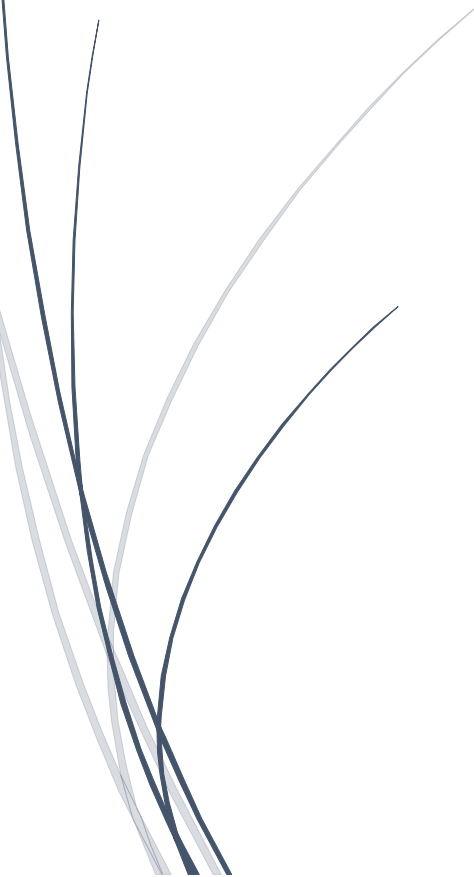


A dark blue vertical bar runs down the left side of the page. A blue arrow points to the right from the bar, containing the date.

7/21/2018

Project Proposal

60-334

Several thin, curved lines in dark blue and light gray originate from the bottom left and sweep upwards and to the right.

Jason Choquette
104337378

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Topic, scope and use cases

The topic for the project will be a job posting website. Development of the site will be built in iterations following an agile-type development model.

Iteration 1 will focus on development of supporting classes to model the site (See Appendix I). Of these classes, the main 'actors' are the Job class, the Employer class and the Candidate class.

Since I am using a Model-View-Controller (MVC) framework (See Appendix IV), the logic and backend of the site can be tested separately from the UI. Because of this, the UI and front-end will be completed in the third and final iteration.

The website will be fairly simple as outlined by the following use cases¹:

Order	Work Item Type	Title
1	User Story	👤 Candidate/Employer/Admin Edit Profile
2	User Story	👤 Employer Can View All Candidates That Applied For Positic
3	User Story	👤 Employer Can Create/Update/Remove job(s)
4	User Story	👤 Employer Can View Candidate CV/Resume
5	User Story	👤 Employer Can View Candidate Profile/Details
6	User Story	👤 Employer Can Search/Browse Cadidates
7	User Story	👤 Candidate Can Receive Job Alerts by Job/Employer
8	User Story	👤 Candidate Can View All Jobs by Employer
9	User Story	👤 Candidate/Employer/Admin Change Password
10	User Story	👤 Candidate/Employer Sign Up
11	User Story	👤 Candidate/Employer/Admin Sign In
12	User Story	👤 Candidate/Employer/Admin Sign Out
13	User Story	👤 Candiadte Upload CV/Resume
14	User Story	👤 Candidate Searches for Job(s) by keyword or Category
15	User Story	👤 Candidate Browses Jobs
16	User Story	👤 Candidate Saves Job Search
17	User Story	👤 Candidate Adds Job To Favourites
18	User Story	👤 Candidate Browses all Jobs Viewed/Applied to
19	User Story	👤 Candidate Can View Job Details
20	User Story	👤 Candidate Can View Employer Details
21	User Story	👤 Candidate Can Review Employer(s)

¹ Microsoft Team Services. Code Repository and Project Management tool integration with Microsoft Visual Studio

User Levels (Privileges)

ASP.NET CORE comes with built-in user account management and user roles (privileges). This can be achieved all the way down to page level through annotations on a Controller and its corresponding method/views. For example, the following snippet of code shows the 'authorize' annotation on the Account Controller. This is a class level attribute that ensures any user accessing this controller has authorization to do so. Note also that methods are called actions.

```
[Authorize]
[Route("[controller]/[action]")]
public class AccountController : Controller
```

Inside the Controller class we have the following method/action for a user to login. Note that it is annotated with 'HttpGet' and 'AllowAnonymous' attributes. These attributes allow "Get" form actions and non-authorized users to have access to the action.

```
[HttpGet]
[AllowAnonymous]
public async Task<IActionResult> Login(string returnUrl = null)
```

Having these annotations makes it very easy to control user actions and assign different roles to users.

ASP.NET Core Identity is a membership system which allows you to add login functionality to your application. Users can create an account and login with a user name and password or they can use an external login provider such as Facebook, Google, Microsoft Account, Twitter or others.

You can configure ASP.NET Core Identity to use a SQL Server database to store user names, passwords, and profile data. Alternatively, you can use your own persistent store, for example, an Azure Table Storage.

[Career Website](#) [Job Seekers](#) [Employers / Post Job](#) [Admin](#) [Roles](#) Hello Admin! [Log out](#)

Roles

ID	Name	Users	
1d98c292-214b-4606-b5fd-59ca2c03a8cc	Candidate	JasonChoquette	Edit Delete
6c2f7cfe-a796-47ce-94e3-2b96bae157f2	Admin	Admin	Edit Delete
7c5b65ef-a497-433a-afc6-fcea5fd018eb	Employer	RobertHalfTechnologyNokiaSymantecTheDepotQueenUGeneralMotorsIBM	Edit Delete

Create

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List of Roles of Application – Only Admin has Access to this page

Job Title	Salary	Number of Vancies	Closing Date	Employer	Job Type	Minimum Education	
Co-op: Web Software Developer	-----	4	09/19/2018	Nokia	Co-op	Some College/Some University	Edit Job Delete Job
Junior Software Developer	\$80,000.00	2	08/30/2018	IBM	Full Time	Bachelor's Degree	Edit Job Delete Job
Senior Web Developer	\$58,454.00	1	09/04/2018	Queen's University	Full Time	College Diploma	Edit Job Delete Job

1
2
3
»

Employer/Admin view

Queries

Candidate	Employer	Admin
Which employers have the highest rating?	Who are the local candidates with specific qualifications?	Number of Weekly/Monthly users
What are the highest paying jobs?	How many candidates have applied to a job?	Number of Job Matches
Find all jobs within a certain distance/postal code	What is the employers' rating?	Who are the employers/Users who haven't used the site in three or more months? (Email to encourage them to return to site.)
What are the newest job openings?	Average time to find a candidate	Who is the most popular employer? (discounts)
Which jobs are closing within the next week?		Which employers hire the most?
Which job has the candidate applied to?		Which postal code(s) have the most job openings?
What are all of the jobs a certain employer has openings for?		

Website Design

[Career Website](#) [Job Seekers](#) [Employers / Post Job](#) [Admin](#) [Roles](#) [Register](#) [Log In](#)

Job Title	Salary	Number of Vancies	Closing Date	Employer	Job Type	Minimum Education	
Co-op: Web Software Developer	-----	4	09/19/2018	Nokia	Co-op	Some College/Some University	<input type="button" value="Apply"/> <input type="button" value="Favourite"/>
Junior Software Developer	\$80,000.00	2	08/30/2018	IBM	Full Time	Bachelor's Degree	<input type="button" value="Apply"/> <input type="button" value="Favourite"/>
Senior Web Developer	\$58,454.00	1	09/04/2018	Queen's University	Full Time	College Diploma	<input type="button" value="Apply"/> <input type="button" value="Favourite"/>

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Website landing page – Anonymous User

[Career Website](#) [Job Seekers](#) [Employers / Post Job](#) [Admin](#)

Log in

Use a local account to log in.

Email

Password

☐ Remember me?

[Forgot your password?](#)

[Register as a new user?](#)

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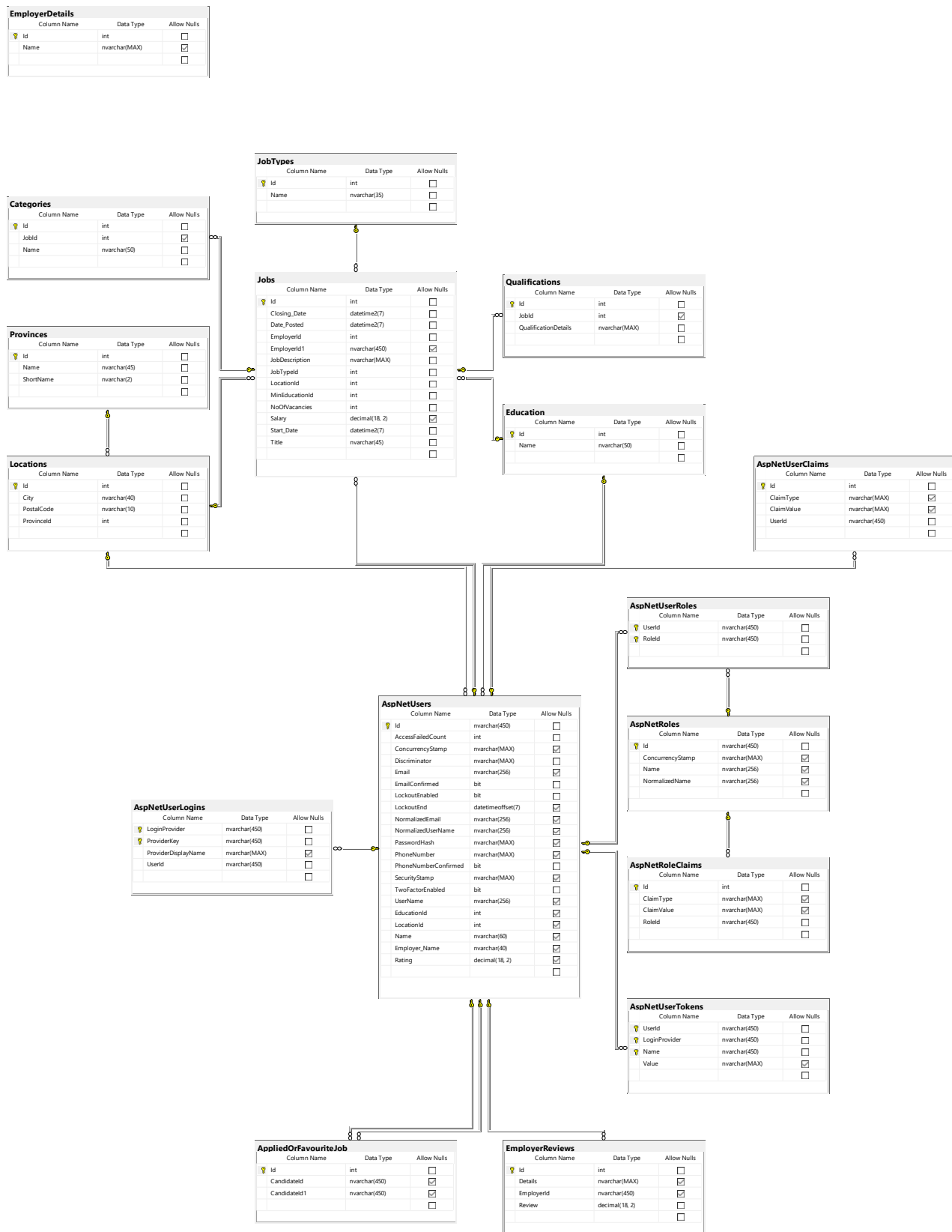
Login/Registration Page

Appendices

Appendix I Class Diagram



Appendix II Database Design



Appendix III Project Structure

