

User Guide

Team Turtle: AE

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Introduction

This document is for the Associated Engineering Resource Management System project. The purpose of the document is to provide the user with both an “Installation Guide” and “User Manual”.

The website can be accessed exclusively through either a User or Admin Client. There are three different pages; Personal Profile, Admin and Projects. Only the Admin Client can access the Admin Page. However, the user can access the Profile or the Projects Page.

The Profile Page has displays both the user and location of the user. It has 3 tabs; “Disciplines”, “Project” and “Utilization”.

Prerequisites

- You(ie. The user) requires the following services, in order to, ensure that all aspects of the project run properly.

Account	Usage
Microsoft Azure	For authentication

- These table items are required to run the applications on your machine before.
You(ie. The user) requires the following applications in the system before starting the project. Please ensure that applications are already installed, before initializing.

Application	Version	Usage
Node.js/NPM	Latest LTS version	For client

Installation Guide

Authentication

1. When you run the application, you will be redirected to Azure AD.
2. Enter the valid use name and password to login successfully.

Installation instruction

1. Open source files using IDE (e.g., WebStrom, Visual studio Code)
2. Then open the terminal and redirect to the source file directory.
3. Then go to ui-react-client.
4. Then type “npm install” then “npm start” the application will be loaded on your browser.

Tests

Service

1. Details of testing script is available in the test plan document.

Client

1. Details of testing script is available in the test plan document.

User guidance

Personal profile page

If everything is loaded correctly. The following page should appear. The “discipline” should be loaded on default.

The screenshot shows a user profile page. On the left is a sidebar with a user card and navigation links. The user card displays a profile picture, the username 'turbottea', the location 'Vancouver', and an 'Edit' button. The sidebar contains links for 'disciplines', 'Project', and 'Utilization'. The main content area is divided into two sections: 'Discipline' and 'Skills: Memberships - Canadian'. The 'Discipline' section contains a table with two entries: 'Memberships - Canadian' and 'Marketing & Graphic Design', both with '1-3 years' of experience and a trash icon. An 'Add' button is at the bottom. The 'Skills' section has a table with 'skills' and 'operation' columns, and an 'Add' button.

Discipline	Years of experience	operation
Memberships - Canadian	1-3 years	
Marketing & Graphic Design	1-3 years	

[Add](#)

skills	operation
--------	-----------

[Add](#)

On the left-hand side we have some basic personal information about the user; Username and Location.

A close-up of the user profile card. The username 'turbottea' is highlighted with a red box and labeled 'Username' with a red arrow. The location 'Vancouver' is highlighted with a blue box and labeled 'Location' with a blue arrow. An 'Edit' button is visible below the location field.


Discipline Tab

In order to add either a discipline or skill. One needs to click the “**Add**” Button.


Discipline		
Discipline	Years of experience	operation
Memberships - Canadian	1-3 years	
Marketing & Graphic Design	1-3 years	



In order to cancel the adding of either a discipline or skill. One needs to click the “**Cancel**” button.

Discipline		
Discipline	Years of experience	operation
Memberships - Canadian	1-3 years	

Cancel Button



Cancel

Natural Resources

1-3 years ▼

submit

The user should type up the discipline to be added. Autofill exists to aid the user in choosing a valid discipline. A drop down exists with the range of years selected; 1-3 years, 3-5 years, 5-7 years, 7-10 years and 10+ years.

The image shows a form for adding a new discipline. It includes a text input field with the placeholder text "Marketing & Graphic De...", a dropdown menu for "Years of experience" with options "1-3 years", "3-5 years", "5-7 years", "7-10 years", and "10+ years", and a yellow "submit" button. Two red annotations are present: a box labeled "Drop Down for Years" with an arrow pointing to the dropdown menu, and a box labeled "Type Discipline Here" with an arrow pointing to the text input field.



If an invalid discipline is added; an error message **should appear** on a pop-up and the discipline **should not** be added to the disciplines table. The pop-up should be **red** in color.

The image shows a form for adding a new discipline. It includes a text input field with the placeholder text "Invalid Discipline", a dropdown menu for "Years of experience" with the option "1-3 years", and a yellow "submit" button. A red error message box is displayed above the form, containing the text "error :add unsuccessfully" and a close button (X). Below the error message, there is a "Cancel" button. The form is titled "Discipline" and has a table with columns "Discipline", "Years of experience", and "operation". The table contains one row with the text "Memberships - Canadian", "1-3 years", and a trash icon.

If a valid discipline is added; a confirmation message **should appear** on a pop-up and the discipline **should be added** to the disciplines table. The pop-up should be **green** in color.

Discipline

success :add discipline successfully ✕

Discipline	Years of experience	operation
Memberships - Canadian	1-3 years	
Marketing & Graphic Design	1-3 years	

Cancel




Marketing & Graphic Des

1-3 years ▼

submit

A discipline can be **deleted** using the **trash can**.

Discipline

Discipline	Years of experience	operation
Memberships - Canadian	1-3 years	
Marketing & Graphic Design	1-3 years	 

Add

Delete Button

After a discipline is **deleted successfully**. A confirmation should pop-up which lets the user know that the delete operation has been conducted successfully. The discipline should also be deleted from the table.

Discipline

success :delete successfully ✕

Discipline	Years of experience	operation
Memberships - Canadian	1-3 years	

Add

Skills

Firstly, a discipline should be selected. The name of the discipline would then be appended to the skills table.

Discipline

Discipline	Years of experience	operation
Memberships - Canadian	1-3 years	

Add

Skills: Memberships - Canadian

skills	operation

Add

Only the skills corresponding to the discipline will be allowed to be added.

Discipline

success :add skill successfully ✕

Discipline	Years of experience	operation
Memberships - Canadian	1-3 years	

Add

Skills: Memberships - Canadian

skills	operation
MED	

Cancel

MED

submit

Skills which do not correspond to the discipline will not be allowed to be added.

Discipline

error :add unsuccessfully ✕

Discipline	Years of experience	operation
Memberships - Canadian	1-3 years	

Add

Skills: Memberships - Canadian

skills	operation
MED	

Cancel

Invalid Skill

submit

Project Tab

The project tab will include all of the projects which the user is **currently involved in**.

A project can have either of 3 statuses; Active, Inactive or Forecast.

	Id	FromDate	ToDate	Status	PM	DisciplineId	OrganizationId	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	126	2019-11-11	2020-11-11	Inactive	66	18	8	2019	0	0	0	0	0	0	0	0	0	0	0	0
2	126	2019-11-11	2020-11-11	Inactive	66	18	8	2020	0	0	0	0	0	0	0	0	0	0	0	0
3	127	2020-03-21	2020-05-01	Active	66	1	8	2020	0	0	0	0	0	0	0	0	0	0	0	0
4	128	2018-03-21	2020-05-01	Inactive	66	1	8	2018	0	0	0	0	0	0	0	0	0	0	0	0
5	128	2018-03-21	2020-05-01	Inactive	66	1	8	2019	0	0	0	0	0	0	0	0	0	0	0	0
6	128	2018-03-21	2020-05-01	Inactive	66	1	8	2020	0	0	0	0	0	0	0	0	0	0	0	0
7	129	2020-03-21	2020-08-22	Active	66	4	8	2020	0	0	0	0	0	0	0	0	10	0	0	0
8	130	2020-01-01	2020-09-21	Active	66	18	8	2020	0	0	0	0	0	0	0	0	0	0	0	0
9	131	2020-10-01	2021-11-01	Inactive	66	11	8	2020	0	0	0	0	0	0	0	0	0	0	0	0
10	131	2020-10-01	2021-11-01	Inactive	66	11	8	2021	0	0	0	0	0	0	0	0	0	0	0	0
11	132	2019-10-01	2020-11-01	Inactive	66	8	8	2019	0	0	0	0	0	0	0	0	0	0	0	0
12	132	2019-10-01	2020-11-01	Inactive	66	8	8	2020	0	0	0	0	0	0	0	0	0	0	0	0
13	133	2020-02-01	2020-04-01	Inactive	66	4	8	2020	0	0	0	0	0	0	0	0	0	0	0	0
14	134	2020-02-01	2020-04-01	Active	66	4	8	2020	0	0	0	0	0	0	0	0	0	0	0	0

(This Figure shows a set of projects with statuses).

Only the projects that have an “Active” status will be displayed. If the projects that have either “Inactive” or “Forecast” statuses, they will **not** be displayed.

Project

Name	Location	Start Date	End Date	Update Time	Status
TEST2	Vancouver	2020-03-21	2020-05-01	2020-04-07	Active
TEST4	Vancouver	2020-03-21	2020-08-22	2020-04-07	Active
TEST5	Vancouver	2020-01-01	2020-09-21	2020-04-07	Active
TEST9	Vernon	2020-02-01	2020-04-01	2020-04-07	Active

The Project Name, Project Location, Start Date, End Date, Update Time and Status of the project will be displayed.

Users are not allowed to add, remove or edit the projects that they are involved in through the personal profile. Henceforth, there are no buttons to modulate the data.

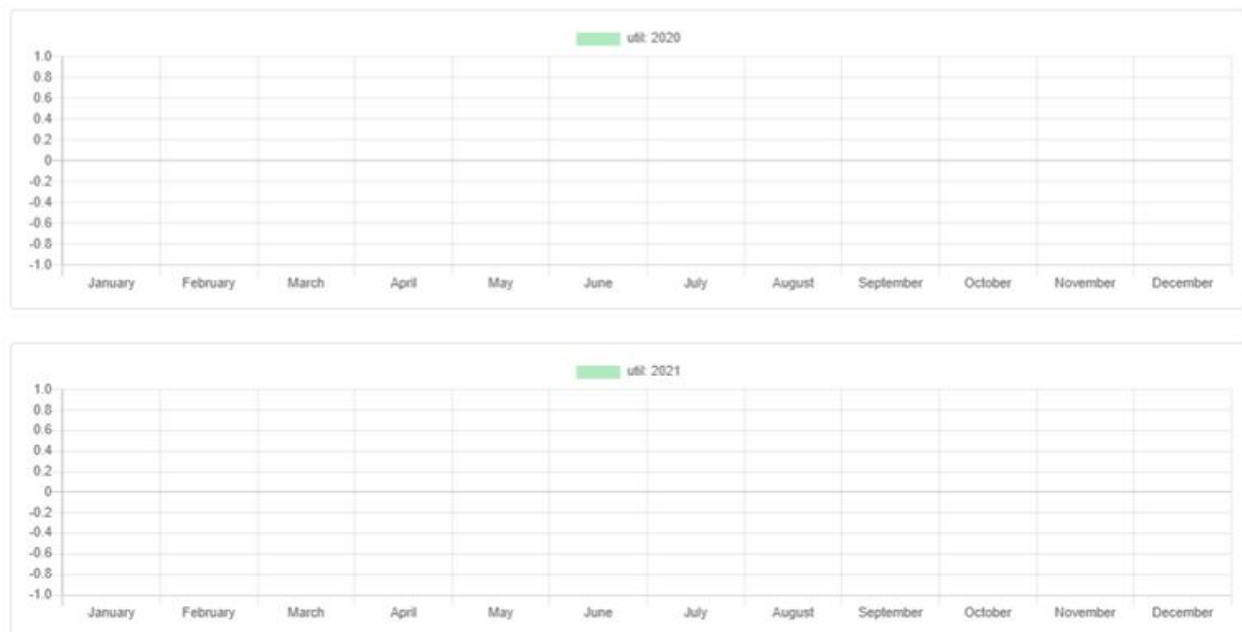
Utilization Tab

Under the context of the project Utilization can occur for 3 resources; User, Project or Organization. Utilization is a ratio which is used to predict whether a resource is being “Over-Utilized” or “Under-Utilized”. If the ratio is greater than 1; the resource is “Over-Utilized”. If the ratio is less than 1; the resource is “Under-Utilized”.

The Utilization tab shows the **User Utilization** for the selected user. This is shown across 2 years; 2020 and 2021. The **User Utilization** is a ratio which helps to predict whether an employee is overworked or under-worked.

The “Average Working Time” in most organizations is 8 hours. Henceforth , the “ Cumulative Average Working Time”, across 8 days is 176 hours.

User Utilization is calculated through the following process. Firstly, we sum of all hours across all projects and organizations. We subtract this amount from the “Cumulative Average Working Time” . We then divide this result by the “Cumulative Average Working Time”.



Project page

By default, the Project Page should look like this.

Projects: Organization8

Users Info

Forecast Summary

Create Project

Name	Location	Project Manager	Discipline	Start Date	End Date	Update Time	Status	Detail	Delete
Enim et nislus hic vel.	Vernon	rathg	Natural Resources	2018-01-01	2019-12-31	2020-04-07	<div>inactive</div>	<div>Details</div>	<div>Delete</div>
Mollis distinctio consequatur aut periphatia accerati il.	Toronto	rathg	Natural Resources	2019-01-01	2020-12-31	2020-04-07	<div>active</div>	<div>Details</div>	<div>Delete</div>
Qui qui molestias.	Red Deer	rathg	Natural Resources	2018-01-01	2019-12-31	2020-04-07	<div>active</div>	<div>Details</div>	<div>Delete</div>

When we click the “Users Info” button. We should get the Search Component.

When we click the “Forecast Summary” button. We should get the Forecast Component.

When we click the “Create Project” button. We should get a window for adding Project.

Search Component

Search User

Search

Discipline*

Natural Resources

experience

1-3 years

Skills

FromDate*

2018-01-01

ToDate*

2020-01-01

Location

Vernon

Availability

Search

Result

Name	Experience	Skill	Location	Availability	Add
armstrongj	3-5 years	Audits	Vernon	100%	<input type="checkbox"/>
marvinm	3-5 years	Audits	Vernon	100%	<input type="checkbox"/>
abshirej	3-5 years	Audits	Kitchener	100%	<input type="checkbox"/>
hermana	3-5 years		Kelowna	100%	<input type="checkbox"/>

Add People

Forecast Component

[illegible]

Create Page Component

Create Project

X

Number

1111

Project Title

New Project

Location

Calgary

▼

Start Date

2014-05-05

Finish Date

2016-05-05

Organization

Organization1

▼

Project Manager

Ashlynn Larkin

▼

Discipline

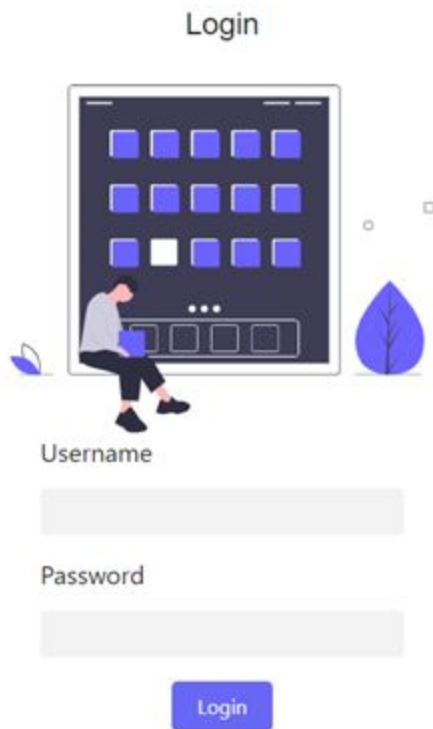
Services

▼


submit

Admin page

1. When you open the admin page, the log-in page will show up.



2. Enter registered administrator Id and password to log in.
3. Then the page will be directed to the homepage. By default, this is the User Page.



Welcome
10:51:38 AM

User

Organization

Location

[Add User](#)
[Remove User](#)

Search

	Organization	First Name	Last Name	User Name	Location	Type
⊙	Organization1	Ashlynn	Larkin	larkina	Vancouver	Resource Manager
⊙	Organization1	Burdette	Smith	smithb	Kitchener	Project Manager
⊙	Organization1	Raymond	Turcotte	turcotter	Vernon	Resource Manager
⊙	Organization1	Jonathon	Armstrong	armstrongj	Vernon	Project Manager
⊙	Organization1	Athena	Mertz	mertza	Kelowna	Project Manager
⊙	Organization1	Jailyn	Fahey	faheyj	Kelowna	Project Manager
⊙	Organization1	Mavbell	Marvin	marvinm	Vernon	Individual

4. On the top-right hand side of the User Page is an add button. If you click this button, then it will show the form to be filled to create each dataset.

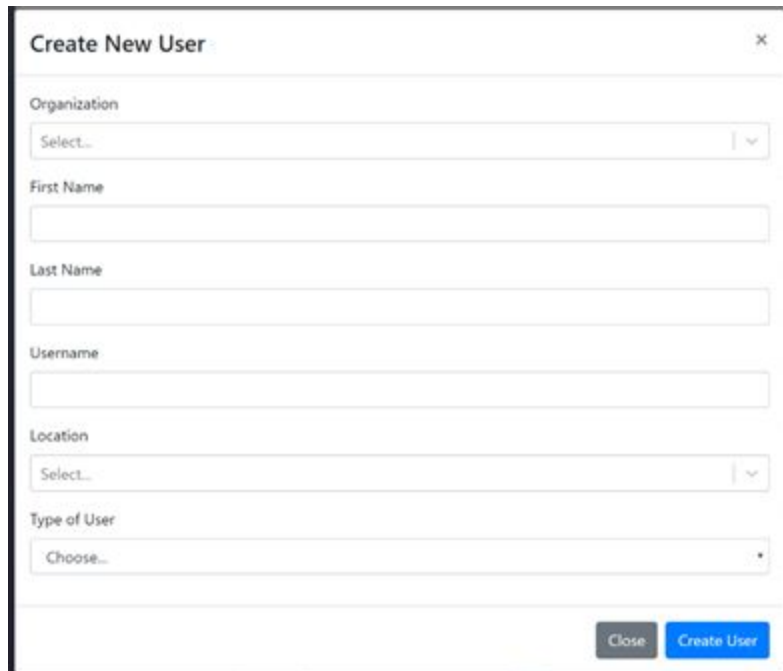
Add User

→

Add Button

Search

	Organization	First Name	Last Name	User Name	Location	Type
⊙	Organization1	Ashlynn	Larkin	larkina	Vancouver	Resource Manager
⊙	Organization1	Burdette	Smith	smithb	Kitchener	Project Manager
⊙	Organization1	Raymond	Turcotte	turcotter	Vernon	Resource Manager
⊙	Organization1	Jonathon	Armstrong	armstrongj	Vernon	Project Manager
⊙	Organization1	Athena	Mertz	mertza	Kelowna	Project Manager
⊙	Organization1	Jailyn	Fahey	faheyj	Kelowna	Project Manager
⊙	Organization1	Mavbell	Marvin	marvinm	Vernon	Individual



Create New User [X]

Organization
Select... [v]

First Name
[]

Last Name
[]

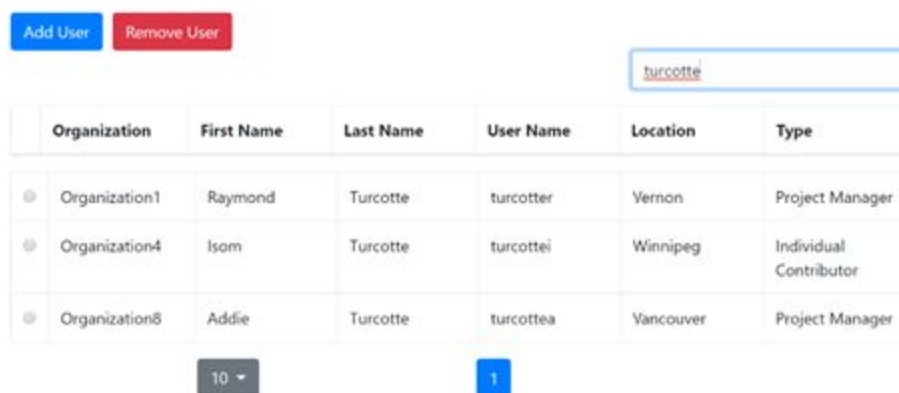
Username
[]

Location
Select... [v]

Type of User
Choose... *

[Close] [Create User]

5. Next to the add button, is the remove dataset button. In the table, there is radio type selection button. First click the row of the table that you want to remove, and click the remove button, then it will remove from the table and the database as well.
6. If you wish to find some specific dataset in the table then there is search bar on top of the table. So you can enter the entry that you are looking for.



[Add User] [Remove User]

Search:

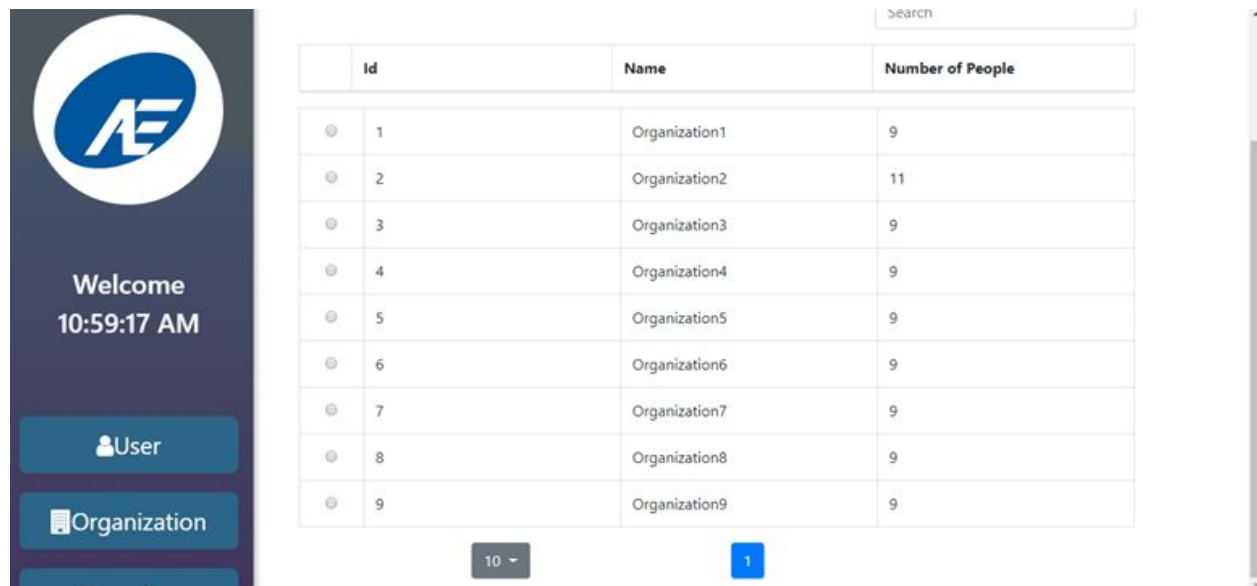
	Organization	First Name	Last Name	User Name	Location	Type
<input type="radio"/>	Organization1	Raymond	Turcotte	turcotte	Vernon	Project Manager
<input type="radio"/>	Organization4	Isom	Turcotte	turcottei	Winnipeg	Individual Contributor
<input type="radio"/>	Organization8	Addie	Turcotte	turcottea	Vancouver	Project Manager

[10] [1]

7. In the side bar, there is Edit button. You can change the password of administrator account. In order to change the password, you must enter current password and new password and confirm password. It will not allow you to changed if you use same password.

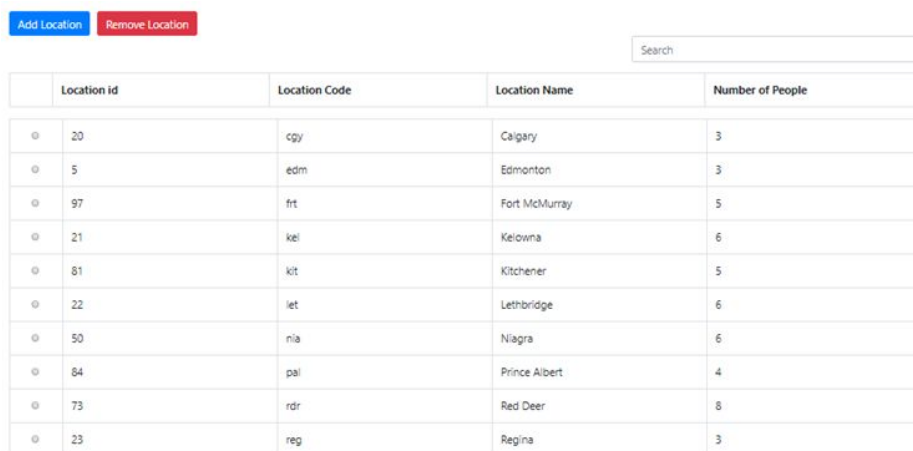
8. The other tabs on this page refer to tables similar to the table above

Figure 6.6 Admin View – Organization Page



	Id	Name	Number of People
⊙	1	Organization1	9
⊙	2	Organization2	11
⊙	3	Organization3	9
⊙	4	Organization4	9
⊙	5	Organization5	9
⊙	6	Organization6	9
⊙	7	Organization7	9
⊙	8	Organization8	9
⊙	9	Organization9	9

Figure 6.7 Admin View – Location Page



	Location id	Location Code	Location Name	Number of People
⊙	20	cpy	Calgary	3
⊙	5	edm	Edmonton	3
⊙	97	fit	Fort McMurray	5
⊙	21	kel	Kelowna	6
⊙	81	kit	Kitchener	5
⊙	22	let	Lethbridge	6
⊙	50	nia	Niagra	6
⊙	84	pai	Prince Albert	4
⊙	73	ndr	Red Deer	8
⊙	23	reg	Regina	3

Figure 6.8 Admin View – Skill Page

Add Skill
Remove Skill

Search

	Discipline Name	Skill Name	Number of People
⊙	Services	Class Environmental Assessments	9
⊙	Services	Condition Assessments	9
⊙	Services	Commissioning	9
⊙	Services	Conceptual Design	9
⊙	Services	Construction Staging Plans	0
⊙	Services	Constructability Reviews	0
⊙	Services	Contract Administration	0
⊙	Services	Contract Documents & Specifications	0
⊙	Services	Cost Estimating	0
⊙	Services	Detailed Design	0

Figure 6.9 Admin View – Discipline Page

Add Discipline
Remove Discipline

Search

	Id	Discipline Name	Number of People
⊙	1	Services	6
⊙	2	Delivery	3
⊙	3	Environmental Management	7
⊙	4	Natural Resources	4
⊙	5	Solid Waste	3
⊙	6	Energy	1
⊙	8	Landscape Architecture	2
⊙	9	Trenchless Technologies	1
⊙	10	Survey	4
⊙	11	Stormwater	4

9. Lastly, if you want to log out admin page, then there is Log out button on bottom of the side bar.

