



COMPX527 – Secure cloud Application Engineering

Group : Weather dashboard

Group members : Brandon Li , Anjalika Sewwandi , Xueyun Li , Raina, Rita and Sanduni

Project progress Stage 01

Project Plan Aug8 - Aug15

Reviewer	Status	Due Date	Notes
bl467823902@gmail....	Done ▾	Aug 15, 2024	<input checked="" type="checkbox"/> Create <u>Git</u> Hub Organization <input checked="" type="checkbox"/> Create the <u>Repository</u> <input checked="" type="checkbox"/> Push the Basic Node Application to the <u>Git</u> Hub <u>Repository</u> <input checked="" type="checkbox"/> Make <u>Branches</u> for <u>Features</u>
locklaskylin@gmail.com qinyun9371@gmail.com	Done ▾	Aug 15, 2024	<input checked="" type="checkbox"/> Make relevant <u>Policies</u> and <u>configurations</u> <input checked="" type="checkbox"/> Design user features
Anjalika Sewwandi	Done ▾	Aug 15, 2024	<input checked="" type="checkbox"/> Create IAM Users for each group member(<u>Set permission, Provide the access credentials, Configure SSH access</u>) <input checked="" type="checkbox"/> Rita <input checked="" type="checkbox"/> Rina <input checked="" type="checkbox"/> Saduni <input checked="" type="checkbox"/> Brandon
Sanduni Fernando	Not started ▾	Aug 15, 2024	<input checked="" type="checkbox"/> Implement <u>CI/CD</u> <u>pipeline</u>
			Key Takeaway <ul style="list-style-type: none"> We have divided our responsibilities and discussed the application development process.

- Once Brandon creates the repository and pushes the basic application to Github, we will clone the application and start working on our features.

Stage 02

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Project Plan Aug15 - Aug22

Reviewer	Status	Due Date	Notes
bl467823902@gmail.com - Team Leader	Done ▾	Aug 22, 2024	<input type="checkbox"/> Leaflet (Map, database and openstreetMap) <input type="checkbox"/> Designing the page
locklaskylin@gmail.com	Done ▾	Aug 22, 2024	<input checked="" type="checkbox"/> Research AWS Cognito capabilities and best practices <input type="checkbox"/> Set up AWS Cognito User Pool and configured the hosted UI
qinyun9371@gmail.com	Done ▾	Aug 22, 2024	<input checked="" type="checkbox"/> Explore the Open-Meteo-API, understanding its parameters and outputs to efficiently fetch real-time weather data. <input checked="" type="checkbox"/> Identify and integrate a secondary API to retrieve geolocation data based on city names.
Anjalika Sewwandi	Done ▾	Aug 22, 2024	<input type="checkbox"/> Create IAM Users for each group member(Set permission , Provide the access credentials , Configure SSH access)
Sanduni Fernando	Done ▾	Aug 18, 2024	Set up AWS SNS. <input checked="" type="checkbox"/> Setup SNS to send notifications with relevant configurations
			Key takeaway We discussed following <ul style="list-style-type: none">How will we get the latitude and longitude based on the user's city?<ul style="list-style-type: none"><input checked="" type="checkbox"/> We concluded that the best approach is to use an API. Use Geocoding API Developer Documentation Geopify to get the latitude and longitude of the locationWe discussed how the entire system functions when all individual components are integrated.

Stage 03

Project Plan Sep5 - Sep12

Reviewer	Status	Due Date	Notes
bl467823902@gmail.com	In progress	Sep 12, 2024	<input type="checkbox"/> Designing the page <input checked="" type="checkbox"/> Leaflet (map, database, and the open street map) <input type="checkbox"/> Combine codes
locklaskylin@gmail.com	Done	Sep 12, 2024	<input checked="" type="checkbox"/> Identified limitations of the hosted UI and planned migration to a custom solution <input checked="" type="checkbox"/> Designed and developed a custom authentication interface for registration, login and update <input checked="" type="checkbox"/> Implemented front-end validation for user input <input checked="" type="checkbox"/> Migrated from hosted URL to custom UI, updated authentication methods to work with the custom UI
qinyun9371@gmail.com	Done	Sep 12, 2024	<input checked="" type="checkbox"/> Implement a method to dynamically receive and process user-specific city information from other team members as it becomes available. <input checked="" type="checkbox"/> Update the frontend to accommodate the real-time display of weather and geolocation data.
Anjalika Sewwandi	In progress	Sep 12, 2024	<input type="checkbox"/> Create IAM Users for each group member (Set permission, Provide the access <u>credentials</u> , Configure SSH access)
Sanduni Fernando	In progress	Sep 12, 2024	<input checked="" type="checkbox"/> Implement CI/CD pipeline <input checked="" type="checkbox"/> Use AWS Beanstalk <input checked="" type="checkbox"/> Set up HTTPS <input checked="" type="checkbox"/> Authenticate requests using a header or something like <u>that</u>
			Key Takeaway <ul style="list-style-type: none">• We discovered the AWS service Elastic Beanstalk, which seems easy to

Stage 04

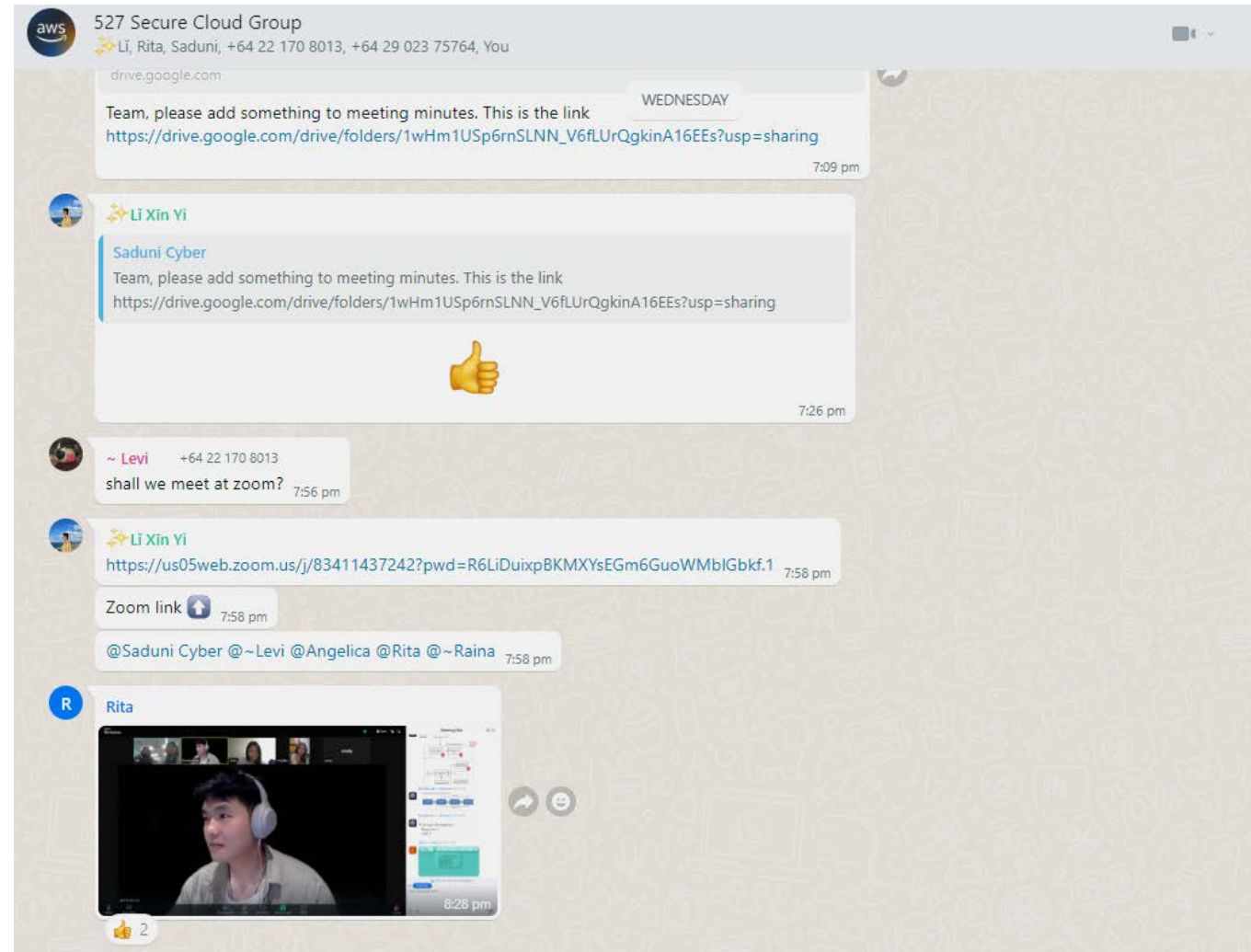
18



Project Plan Aug22- Step 16

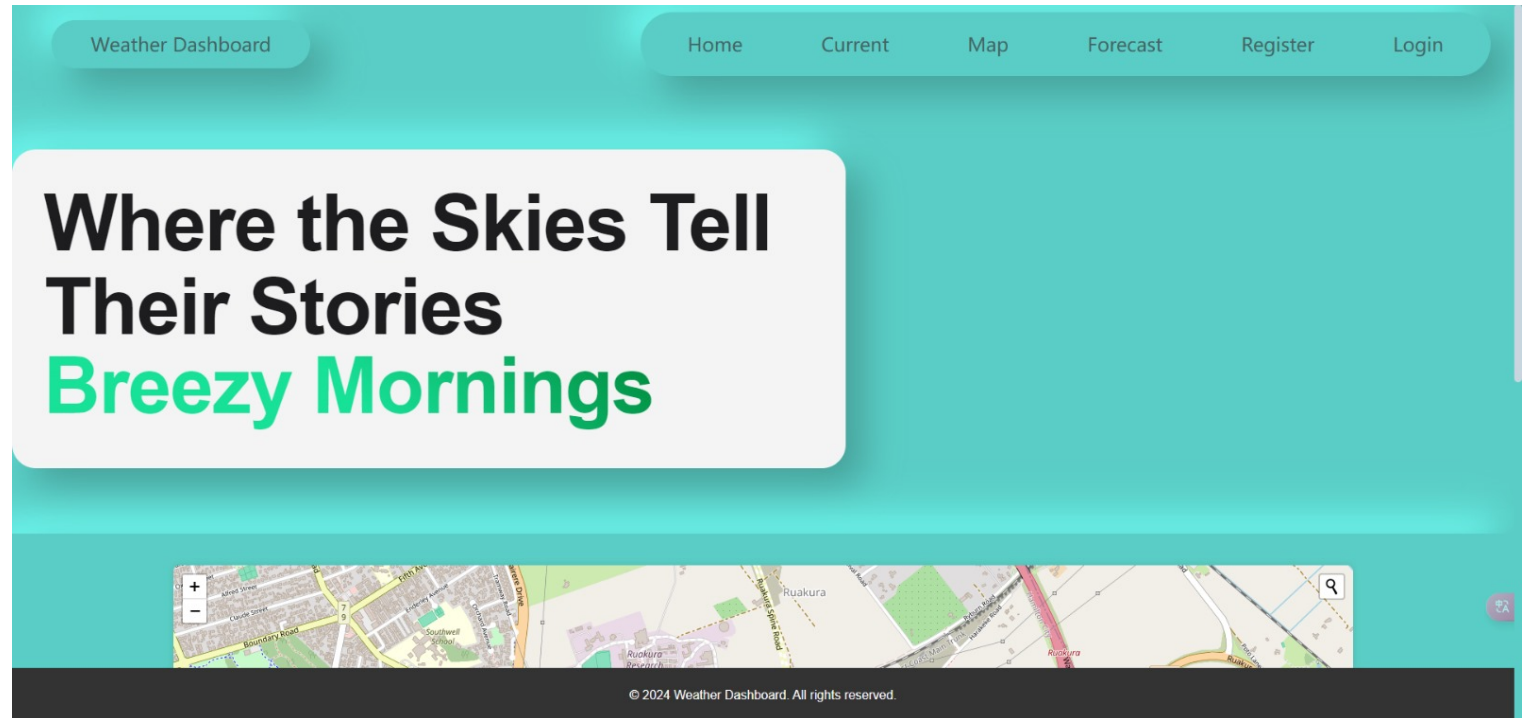
Reviewer	Status	Due Date	Notes
bl467823902@gm... - Team Leader	Done ▾	Sep 16, ...	<ul style="list-style-type: none">✓ Leaflet (Map, <u>database</u> and <u>openstreetMap</u>)✓ Designing the page✓ Github version controls✓ Combine codes (all the members)
locklaskylin@gmai...	Done ▾	Sep 16, ...	<ul style="list-style-type: none">✓ Research AWS <u>Cognito</u> capabilities and best practices ▾✓ Set up AWS <u>Cognito</u> User Pool and configured the hosted UI✓ Registration, <u>Login</u>, preference update✓ Subscription preference for notifications
qinyun9371@gma...	Done ▾	Sep 16, ...	<ul style="list-style-type: none">✓ Explore the Open Meteo API, understanding its parameters and outputs to <u>efficiently fetch real-time weather data</u>.✓ Identify and integrate a secondary API to retrieve geolocation data based on city names.
Anjalika Sewwandi	Done ▾	Sep 16, ...	<ul style="list-style-type: none">✓ Create IAM Users for each group member (Set <u>permission</u>, <u>Provide the access credentials</u>)✓ Creating the final <u>powerpoint</u> and the report
Sanduni Fernando	Done ▾	Sep 16, ...	<ul style="list-style-type: none">✓ Setup SNS to send notifications with relevant <u>configurations</u>✓ AWS Elastic <u>beanstalk</u>✓ Setup CI/CD using AWS <u>codePipeline</u>

Project meeting progress



Weather Dashboard – Demo

Main page





Weather Dashboard

HomeCurrentMapForecastRegisterLogin

Register

Email:
bl467823902@gmail.com

Password:

Confirm Password:

Passwords do not match

City:
Tokyo

☒ Subscribe to newsletters?

Register

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Weather Dashboard

Home Current Map Forecast Register Login

Login

Email:

Password:

Forget your password? [Reset it here](#)

Login

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Location search Stage 01

Weather Dashboard

Home

Current

Map

Forecast

Customise

Logout

Edit Preference

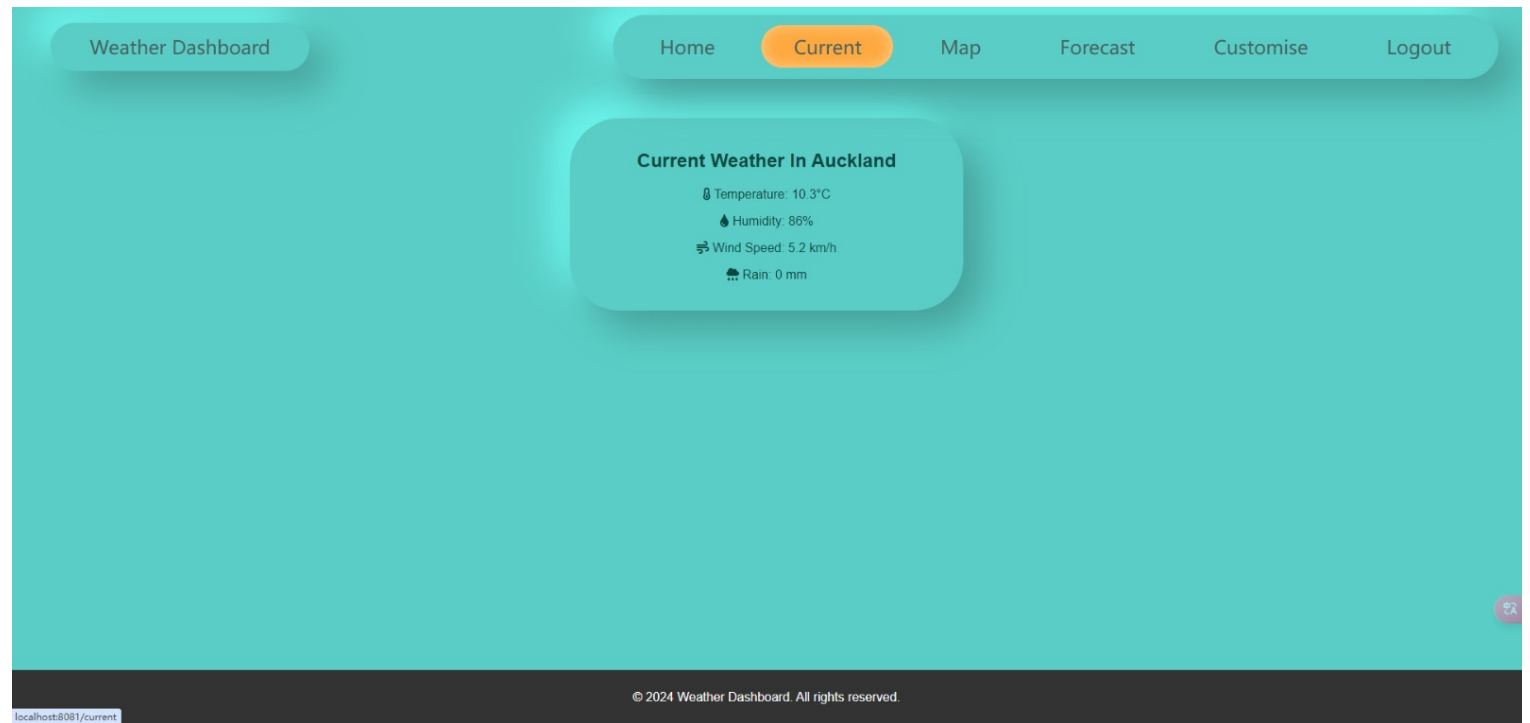
City:

☒ Subscribe to newsletters?

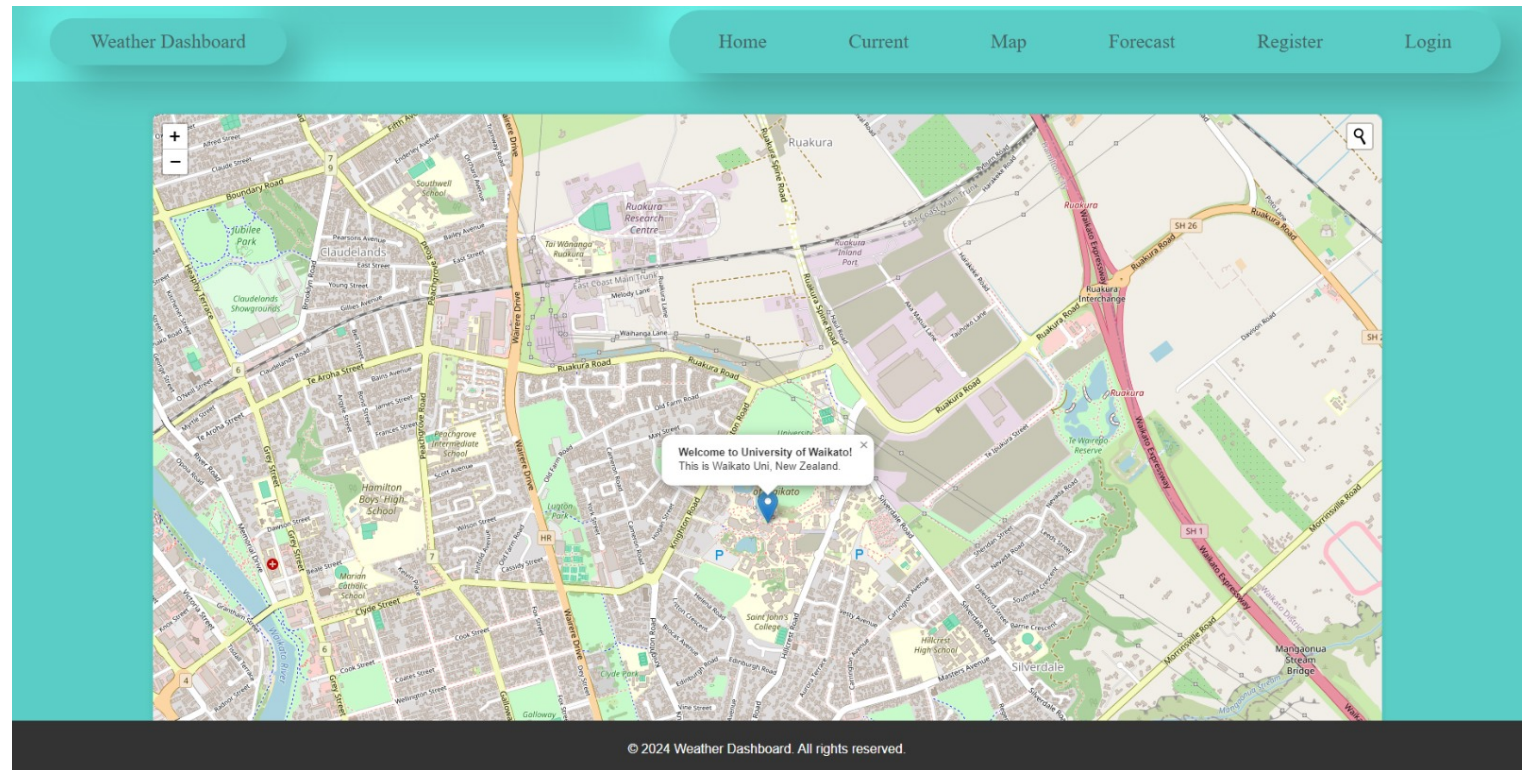
Save Changes

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Stage 02 : view the current weather



Stage 03 : Drop location



Final
outcome

Weather Dashboard

HomeCurrentMapForecastRegisterLogin

7-Day Forecast for Hamilton

Date	Max Temperature	Min Temperature
Monday, 16 Sept	14°C	5.1°C
Tuesday, 17 Sept	12.2°C	6.1°C
Wednesday, 18 Sept	12.7°C	3.5°C
Thursday, 19 Sept	15.1°C	9.8°C
Friday, 20 Sept	15.9°C	12°C
Saturday, 21 Sept	16.6°C	9.7°C
Sunday, 22 Sept	18.1°C	8.3°C

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