CITS3200 Team 4

Minutes of Meeting 11, held 9th October 2024

Present: Fred, Jack, Susheel, Bob, Lilee
Absent: N/A
Location: Online

Agenda Items:

  I.   Progress Reports
  II.   Sprint 3 Deliverables, File Submission Times
  III.   Project Acceptance Tests
  IV.   Project Demonstrations (booking with auditor and with client)
  V.   Final Task Allocation

  I.   Progress Reports:

Fred
  - Finished code for the base-station. Including 3d-printed cases for devices.
  - Fixed bugs on the website

Bob
  - Gpx download from historical DB is working now,
  - Fixing some bugs with concurrent searches
  - Started work on the documentation for Azure db.

Jack
  - Modified UI so that it aligns more with the SES colours.
  - Changed up the folium map to have automatic centring of the selected coordinates.
  - Modified the way colours are assigned to trails so that they are all unique.
  - Made quite a few modifications to the code-base resulting in a cleaner codebase.

Lilee
  - Improved the UI. Overhauled the color scheme and the fonts and the placement of buttons on the landing page.
  - Began collecting documentation for the entire project.
  - Collating all the deliverables and meeting minutes.
      - Are we having the documentation as a folder in the repo?
      - This aligns more with most projects so its a good idea.

Susheel
  - Worked on filtering pings for base stations from after a specific time.
  - Is functional right now but requires more testing with live data.
  - Worked on Selenium testing - unit tests for web app, with documentation

II.   Sprint 3 Deliverables, File Submission Times

(from the project page)
- Any Project documents (as required by the Client) for Sprint 3 need to be submitted to the Client. At the very least, beyond the system itself, the Team should supply an installation guide and a user guide (which can be in the same document).
- A copy of the GitHub commit logs for the project deposited on your Team's MS Teams directory.

- **Submit this Monday 5pm.**
- **What we actually need to submit:**
    1. Link to public Github repository with all commits finalised
    2. Github commit logs
    3. All 4 of the documentation files in repo and separately

III.   Project Acceptance Tests and Stories, Project Demonstrations

(Acceptance Tests to be presented as a Powerpoint Presentation)

Authentication Test

- Live demonstration
- Screenshots
- Demonstrating at least one failed login attempt and a successful login attempt to the hosted web application.
- Explain that the client requested this authentication method, already a premade CSU tenant.
- Microsoft Entra handles the system very well.
- As for the system logging login attempts and flooding, this is handled by Microsoft Entra, preferred by the client.

Accuracy of Geolocation Data

- A video/screen record
- We will do this before the demonstration.
- Record the results using a screen recorder on the web app, accompanying screenshots or photos of the search.
- Ensure the geolocation data is accurate, use Google Maps
- We want to bring in the physical devices, have them set up and working just in case, show the auditor in real time that pings are being received.

End-to-End Reliable Service

- Another video/screen record

- **Losing connection:** Take the device around James Oval and screen record the web app, get far away enough through enough buildings to have a connection loss and note the red outline notification.
- **Dont mention losing power, if asked say it alters (For Jim:** Be honest with the limitation of the tracker losing power / turning off, it will overwrite the old data if it turns back on. If a device turns off, radio the control team and inform them.)

Frontend Robustness

- <u>Live demonstration</u>
- Instead of using Selenium to demo this, we have decided to live demo this in front of auditor, use the **fake_upload.py** file to demo multiple files.
- Unexpected data - The Python code is memory safe it cannot crash for unexpected inputs.
- Malicious inputs are highly unlikely given the implementation and would require physical access to the devices - the database and web application have too much security and authentication, meshtastic uses encrypted channels for security.
- Project is open source - GPS data far away from the search area is okay because people in other countries should be able to use the code, still accurately renders it.
- Does not crash under heavy load.
- **Error messages**: Screenshots **evidence** of error messages, **Azure log streams**.

IV.   **Project Demonstrations**

Client Demo:
    19th October 2024
    Location: 8c Ballantyne Rd, Kewdale WA 6105
    Time: 8:00am

Auditor Demo:
    16th October 2024
    Location: Ezone North
    Time: 6pm

V.   Final Task Allocation

Highlight tasks in your colour:
Fred
Jack
Bob
Lilee
Susheel

FINAL CHANGES TO CODEBASE:

- **retrieve_from_container.py** remove some unused functions
- Uncomment the line that deletes active containers in **routes.py** (will do this after testing and right before submitting)
- Work on professionalism in comments, docstrings for every function - including creating a README.md file
- Remove various comments and print statements from **base.py**
- **Historical data page has some bugs**, data appearing in wrong columns - DONE
- **Help button** that can be pressed for a quick guide
- Config file for global variables, containers, azure database, keys DONE
    - **'Magic' data I left in:**
    - **Routes.py:**
        - References to static/footprint.html throughout, I am leaving this for now as I feel susheel is dealing with this
        - References to coordinates of UWA. Leaving this for now as jack is working with this
    - **Retrieve_from_containers**
        - Same coordinates as before. Didnt touch yet
    - **base.py**
        - Didnt want to break it. Magic ref to keys.txt
- Removing sqlalchemy requirements DONE
- Removing unneeded testing folders DONE
- **Susheel filtering pings revert back to old button**

- **UI Improvements:**
    - Refining the starting position of the map
    - Make border around historical map even
    - Historical data entries having two lines
    - On the homepage, being able to see the buttons at the bottom without needing to scroll down

- **Documentation**
    - **hardware_documentation.md** is done, could add a little bit more

- **project_management_documentation.md** Lilee will add all necessary files to this folder
- Everyone needs to add a little bit to**:**
    - **technical_documentation.md**
        - How to use Azure resources
        - Get key explanation
        - Some more entries for big important code files

    - **user_interface_documentation.md**
        - How to navigate and use the website
        - Big version of the website help button

Stretch Goals Achieved:

- Consistent colour coding of base stations
- Filtering of historical search data