**Project: Sustainable City Management**

**Group : 5**

**SPRINT LOG**

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| **Purpose** | A Weekly Log is used to record issues, required actions or significant events not caught by other registers or logs. It acts as the project diary for the all team members. |
| **Contents** | The document contains all the events, problems, actions and challenges faced during each sprint and the steps or solutions applied in the following iterations. This is a formal log of all the MoM of daily stand-up meetings and weekly status update meetings. |

### Log Description

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| **Date of Entry** | **Problem, action, event or comment** | **Person Responsible** | **Target Date** | **Date of Update** | **Results/Comments** |
| **Sprint 1** | | | | | |
| 22-Jan | Use Cases/ Design Plan   * Use Case for tentative UI and DB * Tentative Design Plan | Pair 1 | 26-Jan | 26-Jan | On Track |
| 22-Jan | Data Set – Find datasets for indicators | Pair 2 | 26-Jan | 26-Jan | Found dataset/API for City Events, Bike,  Need to find dataset for Weather |
| 22-Jan | Data Set – Find datasets for indicators | Pair 3 | 26-Jan | 26-Jan | Found dataset/API for Irish Rail, Parking,  Need to find dataset for Luas, Bus and Traffic |
| **Sprint 2** | | | | | |
| 28-Jan | Functional Architecture   * Finalize Architecture | Pair 2 | 1-Feb | 1-Feb | Complete |
| 28-Jan | Technical Architecture   * Finalize technical architecture – fault tolerance, file dumps, DB, Synchronizer | Pair 1 | 1-Feb | 1-Feb | Complete |
| 28-Jan | Pair Programming and Project plan   * Overview of Sprints with plans for 12 sprints * Pair programming plan for 12 sprints | Pair 3 | 1-Feb | 1-Feb | Complete and delivered to TA and Module instructor |
| **Sprint 3** | | | | | |
| 4-Feb | Create Django PoC   * Create framework for python | Pair 3 | 8-Feb | 8-Feb | Framework in place and pushed to Git |
| 4-Feb | D3.js PoC   * PoC for bike data available from API * Integrate HTML page in framework | Pair 2 | 8-Feb | 8-Feb | Created PoC for bike data simulated every 5 seconds |
| 4-Feb | Use Cases   * Finalize Use Cases and Create document   Create module GitHub   * Module GitHub to maintain code * Google drive back up * Google drive module folder with document deliverables | Pair 1 | 8-Feb | 8-Feb | Completed Use Cases and added all documents to git. |
| **Sprint 4** | | | | | |
| 11-Feb | Set up Django Framework   * Create Apps for each indicator identified so far   Set up PostgreSQL on AWS  Cannot create instance on university network. | P1 | 15-Feb | 15-Feb | Created a separate app for each of the indicators  **Challenges** :  Cannot create AWS server instance from college Wifi network  **Temporary Solution** :  PostgreSQL instance on every machine. **Sync daily/weekly.** |
| 11-Feb | Create App for Bike and integrate PoC | P3 | 15-Feb | 15-Feb | **75% progress** |
| 11-Feb | Start working on Irish Rail API data   * Create app and get data from API | P2 | 15-Feb | 15-Feb | **70% progress**  Issues with XML format of data.   * An API needs to be called to get all station codes * Pass each station code as a query string parameter to get station info from API   **Challenges** :   * Too many loops * Slows down app   **Next iteration :**   * Work on storing station codes directly to DB (assuming they are static) to avoid repeated API calls. |
| **Sprint 5** | | | | | |
| 18-Feb | ~~Database setup :~~   * ~~Create Tables for bike and rail~~ * Do not need to create tables manually in PostgreSQL, Django framework created DB schema based on app Models.   Continue work from past iteration for **bike**. | P3 | 22-Feb | 22-Feb | 100%   * Completed unit test cases * Insert data from API to database * Integrated visualization (html and js) into Django framework |
| 18-Feb | Start working on City Event data from Eventbrite API  Refactoring   * Refactor app code | P1 | 22-Feb | 22-Feb | 50% progress   * API Call * Test Case to test model and Urls |
| 18-Feb | Irish Rail   * Write test cases for View Model and Urls * Bind data to HTML page (either data table or any other visualization) | P2 | 22-Feb | 22-Feb | 100% complete.   * Test Cases for each method in * Individual dashboard displaying all data in a data table ready. |
| **Mid Term Review** | | | | | |
|  | **To Do**   * Find data for bus, traffic * Start Work on UI * Login UI for Django * Data Handling * Model building for Prediction * Data Analysis and Correlations |  |  |  |  |
| **Sprint 6** | | | | | |
| 25-Feb | Priority  UI Layout   * Finalize home page and individual dashboard design and navigation * Build a UI skeleton for Home Page * Log In Screen | P1 | 1-Mar | 1-Mar | UI template finalized and skeleton added to Main folder  Login Pending |
| 25-Feb | City Event Dashboard | P3 | 1-Mar | 1-Mar | 100% complete.   * Bind event data to calendar * Saved to DB tables |
| 25-Feb | Start Working on Weather Dashboard | P2 | 1-Mar | 1-Mar | 50%  **Challenges**   * Weather csv needs to be downloaded every hour and collated * Visualization for weather TBD * Only 1 row of data every hour (Little data for future predictions) |
| **Sprint 7** | | | | | |
| 4-Mar | Weather Dashboard | P3 | 8-Mar | 8-Mar | 80%   * Completed unit tests for model and urls * Visualization pending |
| 4-Mar | UI Layout   * Fine tune UI * Test cases for views   Refactoring   * Refactor API handling and app code | P1 | 8-Mar | 8-Mar | Complete.  Data Handling app added that takes care of API calls of indicators so far. |
| 4-Mar | Login   * Create super user and Log in page | P2 | 8-Mar | 8-Mar | 80%  Hide show dashboards once all links ready |
| **Sprint 8** | | | | | |
| 11-Mar | Weather Dashboard  Car Park Dashboard | P1 | 15-Mar | 15-Mar | Completed Weather Dashboard – test cases, views  Completed Parking Dashboard – test cases, views  **Update :**  Identified Bus information from RTPI,  Historic Weather data for past 30 years |
| 11-Mar | Integrate UI   * Integrate individual dashboard – Bike, Irish Rail, City Events and Weather on main home page * Home Page widgets | P2 | 15-Mar | 15-Mar |  |
| 11-Mar | * AWS set up and creating servers * Refactoring – More refactoring of UI/Main app and Data Handling. * Synchronizing – Create threads in Data Handling app to fetch data from all APIs every few minutes and call respective views to store data to DB | P3 | 15-Mar | 15-Mar | Ticket Resolved  Created central server on cloud and migrate DB from local to Cloud |
| **Sprint 9** | | | | | |
| 18-Mar | UI   * Change icons * Change log in screen and hide dashboards for non admin * Add traffic dashboard   Start working on Bus information | P3 | 22-Mar | 22-Mar | Completed UI changes   * Login 100% complete   50% Bus Dashboard  Here Maps data and API for traffic and incidents on map |
| 18-Mar | Home Page Statistics   * Bike * Events * Rail * Parking Statistics on home page | P1 | 22-Mar | 22-Mar | Calculate/Analysed   * Top 5 busy bike stations * Available bikes at each station * Current train delays * Current Events in the city * Current weather in the city. * Top 5 busy parking areas |
| 18-Mar | Analytics   * Roll up historic weather data into zones * Roll up historic traffic data into zones | P2 | 22-Mar | 22-Mar | Complete |
| **Sprint 10** | | | | | |
| 25-Mar | Bus Dashboard  Luas Alerts – API for real time Luas status updates | P2 | 29-Mar | 29-Mar | 80% Complete |
| 25-Mar | Analytics   * File Dump ready * Data Cleaning for Weather and Traffic * Random Forest for Weather prediction | P3 | 29-Mar | 29-Mar | Failed.  RF resulted in 20% accuracy  New model to be tested next week |
| 25-Mar | Traffic Prediction   * Time Series Model on historic data   Refactoring | P1 | 29-Mar | 29-Mar | 50%  Data Modelling done. |
| **Sprint 11** | | | | | |
| 1-Apr | Analytics Dashboard | P3 | 1-Apr | 5-Apr | Work on Analytics dashboard   * Tableau for analytics |
| 1-Apr | Buffer for final round of testing   * Cosmetic changes and bug fixing | P1 | 1-Apr | 5-Apr | Bug fixing and cosmetic changes |
| 1-Apr | Documentation and ppt presentation   * Refactoring * Documentation * Ppt | P2 | 1-Apr | 5-Apr | Complete |
| **Sprint 12** | | | | | |
| 8-Apr | Technical and Functional architecture description, Group report | P1 | 8-Apr | 12-Apr | Complete |
| 8-Apr | System and Behavioural structure models , Group report | P2 | 8-Apr | 12-Apr | Complete |
| 8-Apr | Compile and deployment instructions, Update project diary | P3 | 8-Apr | 12-Apr | Complete |