**Project: Sustainable City Management**

**Group : 5**

**SPRINT LOG**

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| **Purpose** | A Weekly Log is used to record informal 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 | 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 | P1 | 29-Mar | 29-Mar | 50%  Data Modelling done. |
| **Sprint 11** | | | | | |
| **1-Apr** |  |  |  |  |  |
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