REVIEW
SPRINT 2: DAY 10 OF 10
06/03/2020

WHAT DID WE GET DONE

- Completed our research on how to use Flask.
- Created a basic HTML page with divs corresponding to mockup features.
- Connected Flask application to database.
- Successfully displayed JSON data on webpage
- Created Google Maps markers for each bike station.
- Had station data displayed through an info window which is triggered by on-click event.
- Created a dropdown menu with a list of all stations.
- Created information div which displays data for station that is selected in dropdown.
- Added colours to map markers based on bike availability. (Red <= 25%, Orange <= 50%, Green > 50%)
- Creation of geolocation feature which calculates the nearest station to the user.
- Improved design and styling of data in marker info windows.

WHAT DID WE NOT GET DONE

- Did not get data analytics/graph section set up.
- Didn't get to add icons, etc to weather data.
- User-flow diagram: this was attempted, but wasn't yet possible as not enough of the application was finished. This will be pushed forward to Sprint 3.

DID ANYTHING GO WRONG?

We ran into a data scraping issue with our weather scraper; on inspection on Workbench we saw that the scraper was not populating the table for every hour. We discovered that this was due to an issue with one of the data fields from the API which contained a null value for the rain-type column which tells you whether the rain is heavy or light. Whenever it wasn't raining the value returned was a null value, which somehow invalidated the entire rows affected by the null value so that they did not contain any data at all. The issue was identified through running the responsible script manually outside of the application itself, and it was resolved simply by removing the rain type column, so that the only information displayed in the table now relates to whether there is rain or no rain, with no information about the type of rain.

BURNDOWN/BACKLOG ANALYSIS

Behind on Burndown on first day due to first meeting and sprint planning taking place on Day 2 during practical time.

On average, the prediction for how many hours to spend on the project altogether during the first sprint was accurate for most tasks, but understimated for others (it took us 31 hours to complete work that overall we thought would take 26 hours).

This time we allocated all of our tasks and most of our predicted hours at the very beginning of the sprint, while some were added halfway through the sprint after we had more clarity on our position and progress

Due to the midterm break, we were going to add further features to the product as part of an extension of Sprint 2, but due to reasons outside of our control only one of these new ideas was completed (adding colours to location markers based on bike availability). Therefore, these extra features will be implemented during Sprint 3.

RETROSPECTIVE
SPRINT 2: DAY 10 OF 10
06/03/2020

WHAT WORKED

- Organisation for most of the sprint: We seemed to plan our time well for this sprint and stayed on track with the product owner's expectations. We tried to do as much as possible early in the sprint so that we would be under less pressure during the final days of the sprint.
- We managed to get the majority of the tasks for this sprint completed on time. Coming into the study break, we decided to extend the sprint in order to work on some extra features. This included the geolocation feature and the colour coding of station markers based on bike availability.

WHAT DIDN'T WORK

- Predictions on how long it should take to do certain tasks were underestimated, meaning that more hours were required in a sprint during which which many external factors (i.e. assignments and examinations in other modules) added hugely to our overall workload
- The extension of the sprint into the midterm break, while leading to the completion of a couple of features, was a failure overall, mostly due to circumstances outside our control, but also partly due to a lack of clarity of purpose and less communication between team members as each of us had returned home from UCD for the midterm break.

HIGH-LEVEL PLAN FOR NEXT SPRINT

The plan for the next sprint at the moment consists mostly of adding features that we failed to complete during the extension of this sprint:

- Data Analytics graphs
- Display DarkSky weather icons
- Clean up display of weather data
- Modal Design (giving an onclick function to each marker on the map
- User-flow diagram after all intended functionality is added to the application
- Decide on extra features to be added with guidance from Karl
- Extra functionality for geo-location: be able to give the user directions to a station