**Sprint Backlog**

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| User Story | Tasks | Sprint |
| As a user I want to be able to view and locate the closest bike on a map so that I can easily rent one. | Must display available bikes on an interactive map. |  |
| User must be able to see bike locations within an area. |  |
| Distance to the nearest bike should be shown. |  |
| Map should update in real time to reflect bike availability. |  |
| As a user I want to be able to create an account so that I can track my rides and view my ride history. | The user must be able to sign up using an email and password. |  |
| Must validate the email and evaluate password strength. |  |
| Confirmation email after signing up should be |  |
| User should be able to log in using their credentials. |  |
| As a user I want to be able to view the weather information so that I can plan my ride. | The app must display real time weather updates based on location. |  |
| System should fetch data from OpenWeather API. |  |
| Weather information must include temperature, humidity, and rain forecast. |  |
| As a user I want to be able to view the best route from point A to B so that I can save time. | User must be able to enter a starting and ending location. |  |
| System must suggest the most efficient bike route. |  |
| The route should consider traffic, bike lanes, etc. |  |
| As a user I want to be able to set location for point A and point B. | User must be able to select a starting and ending location via search or map selection. |  |
| System must save the selected locations for future use. |  |
| App should allow users to modify their selected locations. |  |
| As a user I want to be able to interactively view the map and see details about each bike station. | The map should allow zooming and panning for better navigation. |  |
| Bike stations should display the number of available bikes and docks. |  |
| System must highlight stations with low bike availability. |  |
| As a user I want to be able to see different types of information such as weather and bike availability in an easy and convenient way. | User must be able to toggle visibility for bike availability and weather. |  |
| The app must display all relevant information on a single screen. |  |
| The information should be updated based on real time data. |  |
| As a user I want to be able to report a fault or problem with a bike easily to help improve the service. | The user must be able to report a problem through the app. |  |
| System must allow users to describe the issue and submit a photo. |  |
| The reported bike must be marked for maintenance and removed from active service. |  |
| As a user I want to be able to view how busy certain areas are so that I can plan my ride. | The system must show real time congestion levels in different areas. |  |
| The information should be colour coded. |  |
| App should use bike station data and user density to indicate busy zones. |  |
| As a user I want to be able to see an estimated times of arrival for different locations I want to go to so that I can plan my ride better. | System must calculate an estimated travel time based on distance and speed. |  |
| The ETA must be displayed when a user selects a destination. |  |
| App should adjust the ETA based on live traffic and weather conditions. |  |
| As a system I want to be able to allow users to login using their social media so they can access the app conveniently. | System must support Google, Facebook, and other login options. |  |
| Users should be able to log in without creating a separate password. |  |
| If a social login is used, the app must retrieve the user's name and email. |  |
| As a system I want to be able to handle password recovery for users so that users can recover their accounts. | System must allow users to request a password reset through email. |  |
| The reset link should expire after a certain period. |  |
| User must enter a new password that meets security requirements. |  |
| As a system I want to be able to store user data so that they can see their ride history and data. | System must store ride start and end locations, duration, and distance. |  |
| Users must be able to view and filter their ride history. |  |
| Data must be stored securely and be accessible only to the user. |  |
| As a system I want to be able to track real time location of bikes so that users can find available bikes. | System must update bike locations every few seconds. |  |
| App must display available bikes. |  |
| System must notify users if a selected bike is taken before they arrive. |  |
| As a system I want to be able to get data from OpenWeather to provide weather information to the user. | System must integrate with the OpenWeather API. |  |
| Weather data should be updated every 5 minutes. |  |
| App must display weather alerts when conditions are unfavourable. |  |
| As a system I want to be able to get data from DublinBikes to provide bike information to the user. | The system must fetch live bike availability from the DublinBikes API. |  |
| App must update bike station data in real time. |  |
| If the API is down, the app should display a relevant error message. |  |
| As a system I want to be able to get reviews from the user and display them to improve the service and our reliability. | Users must be able to submit a review. |  |
| System must display the average rating of the bike service. |  |
| Reviews must be filtered by date and rating level. |  |
| As a system I want to be able to track the use of bikes, for instance if a bike has been abandoned, a notification needs to be sent out so that it can be recovered. | The system must detect if a bike has not moved for an extended period. |  |
| If a bike is marked abandoned, an alert must be sent to maintenance. |  |
| App should notify users if they forget to dock their bike. |  |
| As a system I want to be able to support different subscription and pricing models so that users can pay conveniently. | System must allow users to choose between pay per ride, daily, weekly, or monthly subscriptions. |  |
| Users should be able to upgrade or downgrade their plan at any time. |  |
| Pricing information must be clearly displayed before purchase. |  |
| As a system I want to be able to set up auto renewal for the subscription so that users don’t have to renew manually. | Users must be able to enable or disable auto renewal from the app. |  |
| The system must notify users before a subscription renews. |  |
| If a payment fails, the user must be notified and given a grace period. |  |