

## **Tech Report: Visual Map Library**

### **Introduction:**

Scran is a quick and easy-to-use social media app for sharing/browsing food recipes. Users will be able to explore new recipes and interact with each other. Recipes on Scran are specific to certain shops, and we would like to give the user the option to view the nearest few of the specific shop (for example to show the closest few "Lidl").

### **LeafletJS Functionalities and Plugins:**

#### **Base Map Providers:**

LeafletJS has quite a few options for base map providers, I think "Azure Maps" is the best choice as it is most accurate for shops in a sample area, looks the smartest/clearest, and it provides traffic and weather information.

#### **Map Interaction:**

LeafletJS has plugins available for lots of map interaction features as well as the built-in features of the library. The library can be used to ask a user for their current location/entering a postcode, and in the case that the user doesn't want to share their location, we can set up the library so that they are able to navigate the map starting from a zoomed-out world view.

#### **Data Providers:**

LeafletJS has a lot of choice for data providers that can do lots of different things, from shops, to information about points of interest, to geographical photos for providing familiarity with a certain area for the user. Not all the features are relevant for our app, but we have the choice to decide we want to use more of these features in the future.

#### **Overlay Data/Display:**

There is functionality to add Images, objects or SVG icons to the map using LeafletJS, which can be used to place markers on certain points on the map, such as shops. It is also possible to add Labels/Text around markers which we could use for the specific shop name and distance from the user's location (provided that they have given permission and shared their location).

#### **Heatmaps:**

We could decide to add a feature to show the popularity of the app in the local area using a heatmap (this has been done in "Olio" and some other popular apps).

### **Conclusion:**

I think LeafletJS is a very good library with lots of features that we can make use of, and for that reason it is the best solution for our app. Something that makes it stand out against other map libraries is the huge amount of plugins and map providers that work with the library, allowing for complete customization, and quick changes can be made in the future if for example we decide we prefer a different style of map.