

# Outdoor Navigation

For outdoor navigation, we will be using the following methods from GIS:

## 1. Getting Radius of locations of single location

Purpose:

To generate a sequence of locations to follow so as to meet the requirements of being [shortest path | fastest path].

Input:

A list of coordinates will be provided to the component.

Output:

A sequence of locations to follow.

Details:

To properly determine the routes, the distance between each path must be calculated and a graph generated. An algorithm must be used to determine the path taken to get to said destination.

We will start by storing all the coordinates into a google map poly line local within our module. All coordinates will be added into our map. We will then calculate the path and return it.

Intersecting radix of start and end will entail obtaining the start and end radix, thereby comparing to see if it intersects anywhere. Should this not happen, each location name returned will be queried for new location names. This will again be queried against each other, until such time that it shared radius locations.

To select the correct direction we will do the following:

Work-out the distance between destination and the locations surrounding the start-point. We will then choose the location with the shortest difference and then query that one for it's radius locations. This will be repeated until we find the destination. See below for example of how.

