Team Name: Group 19
Topic: No Left Turn Route

Team Members:

| Name | |
|---|---|
| Hassaan Malik | Project Leader/Lead Reasearcher |
| Trevor Rae | Mapping Technician/Tester |
| Paul Warnick | Log Admin/ Lead Designer |

# PROJECTLOG

| TIME STAMP | TYPE | TASK ID | STATUS | CONTRIBUTOR(S) | EVENT | SUPPORTING DOCUMENT |
|---|---|---|---|---|---|---|
| 150312T0157 | Decision | 0.1 | Completed | | Decided on project topic and assigned roles to each team member. | Final-Project-Proposal.docx |
| 150318T1640 | Work | 1.1 | Completed | | Set up basic application. Functions so far are view the map, pick a route and see a step by step trip through the route. ATM only works in San Diego | N/A |
| 150318T1710 | To Do | 1.2 | In Progress | | Change the applicaton to work on a global scale. | N/A |
| 150323T1653 | Cancelled | 1.2 | Cancelled | | The app will no longer work on a global scale. We're going to use the public (free) envelope of San Diego | N/A |
| 150323T1722 | Upload | 1.3 | Completed | | Saved a copy of the apps skeleton code (everything that was provided in the tutorial) to GitHub. From here we will add our other methods. | DrivingDirections.java |
| 150323T1730 | Note | N/A | N/A | | Due to the use of the ArcGIS SDK by this point in the project timetable milestones 1-4 have been already been completed and will be skipped | N/A |
| 150323T1742 | To Do | 5.1 | In Progress | | Edit the apps current algoritm to find the a route without making any left turns | N/A |
| 150323T1753 | To Do | 6.1 | In Progress | | Once a route with no left turns is calculated. Find the quickest/most efficent path. | N/A |
| 150323T2130 | Work | 5.1.1 | Completed | | Added if statement that check if the turn is left. If so currently the program just shows a temporary prints statement | DrivingDirections.java |
| | | | | | | |
| 150325T1559 | Planning | N/A | Completed | | In summary: As a group we've decided not to use the ArcGIS servers and are re- planning the project from the ground up. See attached document. | Project Re-planning.docx |
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| 150325T1733 | Work | 0.2 | Completed | Hassaan & Paul | Read 2ME3 textbook to understand how to make the requirements document. | N/A |

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|---|---|---|---|---|---|---|
| 150326T1632 | Work | 0.3 | Completed | Paul | Finished requirments & specifications report. | Requirements & Specifications.docx |
| 150326T1646 | Work | 1.1 | In Progress | Hassaan | Using input data files, created map including intersections and streets. | N/A |
| 150326T1710 | Research | 1.1 | In Progress | Trevor | Researched and tested making the map able to be panned through and zoomed in on. | N/A |
| 150327T2021 | Work | 1.1 | In Progress | Hassaan | Implements code for creating an edge weighted graph, jframe for displaying map, selfbalancingtree for storage and multiple ADT's for later use | Bag.java, Edge.java, EdgeWeightedGraph.java, JPanelTest.java |
| 150329T0244 | Work | 1.1 | In Progress | Paul | Enabled zooming and panning on map along with other features like adding stops a finding a route. | N/A |
| 150330T0925 | Note | N/A | N/A | N/A | We are now using ArcGIS's framework as a base for our application simply to display the graph to the user and allow for ease of navigation. | N/A |
| 150330T1030 | Work | 1.1 | Completed | Paul | Finished setting up the GUI allowing the user to pick stops, find a route and reset current actions. Along with a working map of the data set. | N/A |
| 150330T1032 | Work | 2.1 | In Progress | Hassaan | Worked on implementing Dijkstra's algorithm to calculate the shortest path from one intersection to another. | N/A |
| 150330T1340 | Work | 2.1 | Completed | Hassaan & Paul | Finished impletements Djikstra's algorithm to find the shortest path for our data sets. | DijkstraSP.java |
| 150331T1123 | Work | 4.1 | Completed | Paul | Added method to find the closest instersection on the map to where the user has clicked for routing purposes. | N/A |
| 150331T1213 | Research | 5.1 | In Progress | Hassaan | Researched how to implement avoidance of left turns based on our code | N/A |
| 150331T1320 | Research | 4.2 | In Progress | Trevor & Paul | Researched making the map display the route calculated by Dijkstra's algorithm. | N/A |
| 150331T1435 | Research | 4.2 | Completed | Trevor & Paul | Decided on implemtation to follow for displaying the route on the map. | N/A |
| 150331T1646 | Work | 4.3 | Completed | Paul | Implemented method to run through the shortest path and display it to the map. | MapGenerator.java |
| 150401T1122 | Work | 4.3.1 | Completed | Hassaan | Reversed formula for properly placing route on map in order to make determining the route easier. | N/A |
| 150401T1630 | Research | 5.1 | In Progress | Hassaan | Discovered where to added a check for left turns and researched how to implement it. | N/A |

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| 150401T1717 | Work | 4.3.2 | Completed | Paul | Updated start and stop locations to actual pictures for visuals. | N/A |
| 150401T1630 | Work | 5.1 | In Progress | Hassaan | Implemented check for left turns method skeleton. | N/A |
| 150401T2200 | Work | 5.1 | In Progress | Hassaan | Added code to previous method skeleton to check for left turns based on angle of turn. | N/A |
| 150402T0045 | Work | 5.1 | In Progress | Paul | Fixed bugs and updated code for left turns method | N/A |
| 150402T1532 | Research | 5.1 | In Progress | Hassaan | Looked into mutiple method of calculating if a left turn has been made. | N/A |
| 150402T1620 | Work | 5.1 | In Progress | Hassaan & Paul | Continue implementing research from last step. | N/A |
| 150403T0024 | Work | 5.1 | Completed | Paul | Fined method to determine if a left turn has been made | NoLeftTurnSnippet.java |
| 150403T0057 | To Do | 5.2 | In Progress | N/A | Once a left turn in a route is occurred, diplay a alternative route of right turns to the user. | N/A |
| 150406T0830 | Work | 0.4 | Completed | Trevor | Created power point presentation for in class presentation. | Group19_ProjectPresentation.pptx |
| 150406T1230 | Work | 5.2 | In Progress | Hassaan | Implemented a checker to determine a right turn loop if a left turn has occurred. | N/A |
| 150406T1305 | Work | 5.2 | In Progress | Hassaan & Paul | Finished check based on adjacency lists of the left turn intersection. Now returns a list of "Edges" that need to be displayed | N/A |
| 150406T1345 | Work | 5.2 | Completed | Paul | Displayed right turn loop to map in a different colour than regular route. | N/A |
| 150407T0007 | To Do | 5.3 | In Progress | N/A | Fix bugs in right turn checker & display | N/A |
| 150407T1034 | Work | 5.3 | Completed | Hassaan & Paul | Fixed bugs in right turn checking by adjusting angles and eliminating null pointer exceptions | N/A |
| 150407T1240 | Work | 6.1 | Completed | Hassaan | Added considerations to the no left turn route. If taking a straight and three right turns is not optimal, it is not taken. | N/A |
| 150407T1308 | Work | 6.2 | Completed | Paul | Displayed each right turn loop with considerations to the map. | N/A |

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| 150407T1654 | Work | N/A | In Progress | Trevor | Began working on project documentations. | N/A |
| 150407T1822 | Work | 7.1 | Completed | Paul | Implemented multiple stop locations feature and successfully displayed to the map. | N/A |
| 150407T1845 | Work | MVC | In Progress | Hassaan | Began converting code to better MVC style format. | N/A |
| 150407T2131 | To Do | MVC | In Progress | N/A | Finish coverting the code to MVC | N/A |
| 150407T2133 | To Do | N/A | In Progress | N/A | Eliminate any remaining bugs in the code. | N/A |
| 150408T1131 | Work | N/A | Completed | Hasaan & Paul | Fixed all bugs. Project is workin perfectly. | N/A |
| 150408T1502 | Work | N/A | In Progress | Hassaan & Trevor | Continued work on documentation. | N/A |
| 150408T1714 | Work | MVC | Completed | Paul | Finished implmenting MCV format. Application is now in three packages with proper classes to divde up the code. | N/A |
| 150408T2017 | To Do | N/A | In Progress | N/A | Finished documentation. | N/A |