# SMART TRAVEL PLANNER

DSA J COMPONENT

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# INTRODUCTION

Our project, titled Smart Travel Planner(STP) is a user friendly interface that helps you plan your trip to anywhere in the world! It will help you find the fastest travel path between all the places you want to visit and it will give you an economic travel as well. We've always found it tedious to look up places and collect information about the place we want to visit, and many a times feel lazy to do so because there's a lot of searching involved. Even if we decide upon the place and the tourist spots in that place, the trip is not often economical and travel consumes a lot of time and energy. This was our inspiration to take up this project.

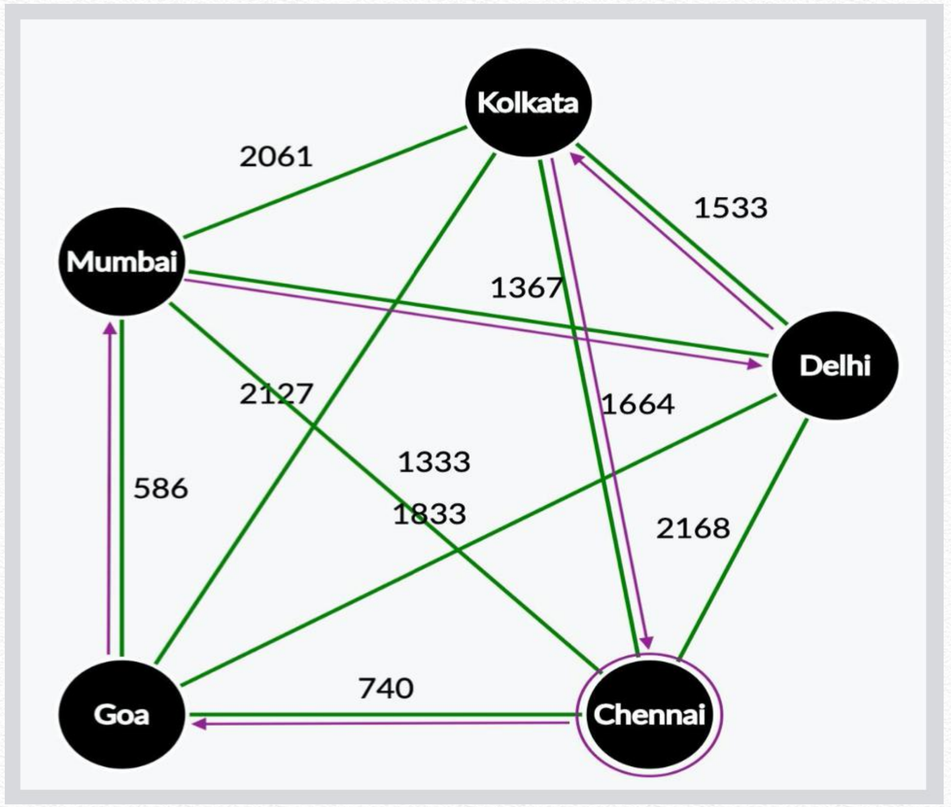
# ALGORITHM

- STEP 1: Start
- STEP 2: Get the list of places need to be travelled from the user
- STEP 3: Set the first place as the origin and call it place 1
- STEP 4:
  Do :
  Find the distance between a place and the rest of the places (nodes, in a graph)
  Then with all the possible distances, find the minimum distance. Link the nodes with minimum distance.
- STEP 5: repeat step 4 for all nodes/places in the list provided
  - The distance between the two nodes should be >0 , and
  - The distance between the same two nodes must be calculated only once.
- STEP 6: Display the final route.
- STEP 7: END

# GRAPH- MAIN DATA STRUCTURE USED

- EXAMPLE:
- CHENNAI BEING THE SOURCE, ROUTE IS

CHENNAI→GOA→ MUMBAI →DELHI→KOLKATA→CHENNAI



# IMPLEMENTATION: LANGUAGE

- We have used html, css, bootstrap, JQuery for the front end.
- The backend was done using Python Django.
- All the test cases were taken into account while blackbox testing our project.

# IMPLEMENTATION: KEY FEATURES

- The website requires the user to sign in to plan a trip
- The interface has details as to how to access the features of the system
- The user will be able to remove a place from the list provided for formulating the plan
- The first place in the list will be considered as the source
- The user profile has a history of places travelled, for which a stack data structure is used
- The details about the places, the user has chosen to travel to will be displayed ( information from Wikipedia )
- Hyperlinks to the best rated hotel/motel room booking websites will be given to make planning a lot more easier

# SCOPE FOR IMPROVEMENT

- The user will not be able to enter places which have names similar to those in other countries.
- The map connects the places entered by the user, like a graph but, it doesn’t show the weights(distance in Km) of the edges in the map.
- Recoverability could be better.

# THANK YOU