## **Individual Contributions**

## **Srikar Vodeti**

- I have implemented Decorator pattern to change the shape, color and size of the city.
- I have also implement a dialog box with asks the user for the above inputs and on clicking ok changes the shape, color and size based on the user input. I was involved in designing the class diagram of the application and in implementing singleton pattern for displaying the messages

## Kenil Patel

- I implemented the factory pattern for city and connection class.
- I have also implemented chain of responsibility which decides which algorithm to run according to the request made.
- Moreover, I implemented the Observer pattern which updates the connection between cities once algorithm has completed it's execution.
- Blackboard class and all the algorithm classes are made singleton by me.
- Except for message displayer (which was designed by me and Srikar both) and dialog box (which was implemented by Srikar), other GUI is designed by me.
- Srikar and I, together created the document describing our design decision.
- TSP algorithms were implemented by me and Clustering algorithm was found online and refactored by me.
- All the logic regarding actions to be performed when any of the menu item is called is written by me.