## CSE 165 Report

Our application allows users to add every person they know and certain information about each person added to the app. For each person entered, the user will also input their time and their relation to them. Everything is sorted through relation and the time and date are outputted based on their time zone. We have a loop that runs indefinitely until we press a cancel button such that we can input as many people as the user requires. We see the results as a name, time zone, date & time, and relation in a table format.

Within our project, we all completed the main cpp file together and evenly split our remaining work. Ethan handled our display.h file, and Shreev and Arvind collaborated on the sorting.h file. Arvind completed the repository setup on GitHub for version control and Shreev wrote this report for submission. We all implemented Object Oriented Programming concepts within each class. Ethan handled the person class, Shreev handled the family class, and Arvind handled the friend class.

Ethan's task was to create the person class which was the parent class in our code. Every person has a name, time zone, and relation. Shreev created the family class which is one of the children classes. The other child class is the friend class which was developed by Arvind. The family and friend classes both inherit everything from the person class. Polymorphism is implemented in our sorting.h file by sorting the entries. The 'dynamic\_cast' keyword determines the type of person objects at runtime. Our upcasting is implied as person pointers reference family and friend objects.