TEST PLAN

Shashank Suroju   19CS10061

Unit Tests:

1) **Date**

   a) Checking operator<
   b) Checking various invalid date situations.
   c) Checking if the operator- is working properly in various scenarios
   d) Checking day name for various dates

2) **Station Class**

   a) Checking for every station name
   b) Checking for symmetric ordering to stations
   c) Checking for every pair of stations

3) **Railways Class**

   a) Checking the master data in the class

4) **Gender, Divyaang Classes**

   a) These are simple singletons
   b) Checking the name of each singleton class

5) **Exceptions Class**

   a) Checking the exception message for each exception

6) **Passenger Class**

   a) Various scenarios like disability type
   b) Checking Invalid aadhaar number or mobile Number

c) Invalid date of birth

7) Concessions Class

a) Verify concession factor for various types of people

8) BookingClass

a) Verify various factors of each booking class
b) Like Name, Reservation charge, IsAC() etc

9) Booking

a) Verify various categories of booking for different booking classes

10) Booking Category

a) Verify the names of each booking category

TEST CASES:

1)STATION:

a) Check distances between stations(all pairs will be verified while testing booking)

i)Station("Mumbai").GetDistance(Station("Delhi"))

Output: 1447

ii)Station("Delhi").GetDistance(Station("Mumbai"))

Output: 1447

2) Gender and Divyaang Class:

a) Gender class

Get Names of both the classes

    i) Male::Type().GetName()

    Output: Male

    ii) Female::Type().GetName()

    Output: Female

b) Divyaang class

Get Names of classes

    i) Blind::Type().GetName()

    Output: Blind

3.BookingClass

Every bookingclass, we verify its properties using golden outputs. Even though most of them will be validated in the final booking tests (each class will be used at least once)..

Concessions Class

For each class, we use getConcessionFactor() and verify. Almost all will be verified during testing of booking.

a. Check generalConcessions class

    i)Call getConcessionsFactor() on any passenger

        Output: 0

b. Check LadiesConcessions class.

No concession is given for now, can be added later.

i) Call getConcessionsFactor() on any passenger

  Output: 0

c. Check DivyaangConcessions class.

There are many possible inputs for this, we will test only a few here and the remaining will be tested in testing of Booking. Call getConcessionFactor () on passenger with following disability and BookingClass.

  i) Blind, ACFirstClass   Output: 0.50

  ii) Orthopaedically Handicapped, ACTwoTier Output: 0.5

  iii) Cancer Patient, ACChairCar   Output: 1

  iv) TB Patient, Sleeper Output: 0.75

  Others will be verified in testing of booking.

Test for Booking: