# Uber

## Part b

In this assignment you will implement some functionalities of Uber according to the requirements given below.

Due date:6th May, 2019 SUBMISSIONS WILL BE ON SLATE

This assignment is extension of assignment 4, you have to add following features to your assignment.

1. Make Users class virtual
   1. Identify the features that are abstract for User class and name them pure virtual
2. Store all users either they are drivers or passengers in one array called UsersArray, in same way as you created UberTrips array. This array should be global.
3. Write a function that takes file name as an input, read the users from the file and stores then in users array. The format of the file should be as follow.
   1. userType,name,DOB,email,phoneNumber
   2. userType will be p for passanger and d for driver.
   3. Examples are (add these example to a text file for part 9)
      1. p,shahmeer,10-10-2000,shahmeer@hotmail.com,03335854544
      2. d,meher,9-3-1990,meher@gmail.com,03259299689
      3. p,ibrahim,11-11-2010, ibrahim@hotmail.com,03335575744
      4. p,mustafa,15-5-1992, mustafa@hotmail.com,034757545544
      5. d,ali,18-5-1970, ali@gmail.com,036255754050
      6. p,sana,10-10-2000, sana@hotmail.com,039057875005
      7. d,noor,9-3-1990, noor@gmail.com,0387057554
4. Write a non-member that will print each user in usersArray.
5. Write a non-member function that will return the most highly rated user, it can be a driver or a passenger.
6. Write a function that will return the most highly rated driver (remember that all the user are present in UsersArray)
7. Write a function that will return the most highly rated passenger (remember that all the user are present in UsersArray)
8. We will add a functionality of sending text messages to user for this you will add a function sendMessage and readMessage to user class
   1. Driver can send message only to the passenger or of its current ride
   2. Passenger can also send a message only to the Driver of its current ride
   3. You only need to store one most recent message of users at any time. So you need only one string or char\* variable to store the message
   4. User can read message by using readMessage function, this function should just print the message on console.
9. DRIVER CODE.
   * Call the functions created in step 3 to read all users in usersArray
   * Shahmeer books a ride
   * Meher picks shahmeers ride
   * Meher messages shahmeer “Can you please confirm the location?”
   * Shahmeer reads messages
   * Shahmeers sends message to meher “19B Faisal Town opposite 711 Store”
   * Meher ends the drive
   * Shahmeer rates meher 5
   * Meher rates shahmeer 4
   * Ibrahim books a ride
   * Shahmeer picks ibrahims request
   * Shahmeer ends a ride
   * Shahmeer rate Ibrahim 3
   * Ibrahim rates shahmeer 4
   * Call the functions create in part 5, 6 and 7 to get the most highly rated user, passage and driver respectively.
10. Make sure to free all the memory you have allocated anywhere in your code.

Note that non-member function is a function that is not a member of any class. You can create these functions in same file where you create your main function.

Note that while adding any of these functionalities, none of the original functionalities given in assignment 4 should be effected.