

Programming II

Comp 111
Spring 2022



Department of Computer Science
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Lab 11

Question #	Total Marks
Question 1	10

Question 1:

Create class passenger, bus and seat. Each Seat object has three attributes, i.e., seat number, availability flag (1 if the seat is available, 0 otherwise), and an occupant (empty string means that seat is still available, otherwise a Passenger object).

Each Passenger has a name and can purchase a Seat in a Bus. *purchase_seat* function needs a seat number (not a Seat object) and the Bus object. If that particular seat is available, then passenger will be stored in seat object.

Each object of Bus class is composed of 24 Seat objects. Bus object also has a ticket price per seat and a total booking amount. Use a loop in the constructor to create 24 Seat objects. As seats are purchased by passenger, their ticket price is added to total booking amount attribute. Bus has a display function in which each Seat object of the Bus calls display function of Seat class with complete information.

Create a Bus object, and two passenger objects. Both passengers try to buy seat number 15. Show the output as well. Also Bus should display all the reservations of its seat and passengers.