Assignment 2- SOLID Principles

Learning Outcome: Writing object Classes using SOLID principles

Q1. A mobile phone implements software to make a call connection. It takes input that must be numbers and there must be 10 digits that must be entered for the phone number to be valid and must start with 7 or 8 only. For a valid number, a call connect is made otherwise an error message is issued.

Design and implement an OO class for the foregoing that follow SRP and OCP.

Q2. A railway system does booking and cancellation. It accepts input of passenger (assume one only), passenger address and phone number, class of travel, train number, start station, end station, date of travel. Train number, start and end stations are validated. If the train is full then the passenger is put on RAC list. If that is full then the passenger is waitlisted. If the waitlist is also full then the booking is refused. Assume that when the booing is accepted then the full fare for the journey is paid.
When cancelling a booking the RAC and waitlist are adjusted, the fare refunded and the booking removed.

Design an OO class structure to handle the foregoing. The design must comply with SRP and OCP.