

PARKING LOT SYSTEM:

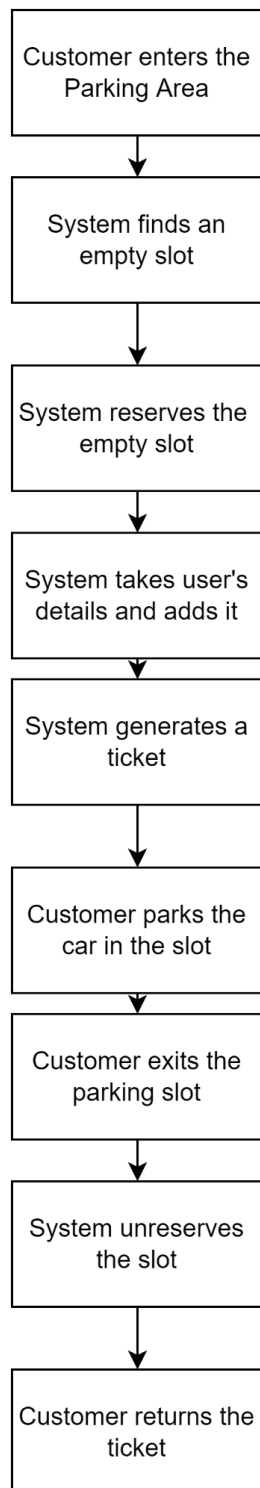
Requirements:

- Reserving a parking slot which is nearest to entry gate and is empty
- Customers can collect a parking ticket at the entry gate
- Customers can park in the parking slot
- Customers can leave the parking slot
- System un-reserves the parking slot
- System can take the customer's vehicle no and age who has parked
- Customers can return the ticket at the exit gate

Use cases:

- Customers- Park cars, unpark cars, get ticket, return ticket
- System- Reserve parking slot, unreserve parking slot, add customer's data

Activity Diagram:



Classes and Enums:

- ParkingStatus Enum:
 - RESERVED, UNRESERVED
- TicketStatus Enum:
 - RETURNED, NOT_RETURNED
- Customer:
 - Data members: age, vehicleNo
- Slot:
 - Data members: slotNumber, ParkingStatus(Def.value=UNRESERVED), List of customers,
- Ticket:
 - Data members: ticketNumber, slotNumber, customer, ticketStatus
- ParkingArea:
 - Data members: List of slots, List of Tickets
 - Member methods:
 - findEmptySlots()
 - addInSlot(Customer)
 - removeFromSlot(slotNumber)
- Main:
 - Reads from input.txt
 - Writes to output.txt
 - getVehicleNoFromAge(List<Slot>slots, int age)
 - getSlotNoFromVehicleNo(List<Ticket>tickets, String vehicleNo)
 - getSlotNumbersFromAge(List<Ticket>tickets, int age)