package consoleapp;

import java.util.\*;

public class TrainReservation {

static class Train{

int seats;

String name;

int number;

Train(int number,String name,int seats){

this.number=number;

this.name=name;

this.seats=seats;

}

}

static class Ticket{

String passenger;

int trainnumber;

int id;

static int counter;

Ticket(String name,int number){

this.passenger=name;

this.trainnumber=number;

this.id=counter++;

}

}

static Scanner sc=new Scanner(System.in);

static List<Ticket> tickets=new ArrayList<>();

static List<Train> trains=new ArrayList<>();

public static void main(String[] args) {

boolean option=true;

while(option){

System.out.println("Ticket Booking Application");

System.out.println("==========================");

System.out.println("1.Book Ticket");

System.out.println("2.Add Train");

System.out.println("3.View Train");

System.out.println("4.Cancel Ticket");

System.out.println("5.View Booked Tickets");

System.out.println("6.Exit");

int opt=sc.nextInt();

switch(opt){

case 1:

bookTicket();

break;

case 2:

addTrain();

break;

case 3:

viewTrain();

break;

case 4:

cancelTicket();

break;

case 5:

viewTicket();

break;

case 6:

option=false;

break;

default:

System.out.println("Enter valid option");

}

}

}

static void viewTrain(){

if(trains.size()==0) System.out.print("No Train Available");

for(Train t: trains){

System.out.println("Train name:"+t.name+" train no:"+t.number+"");

}

}

static void addTrain(){

sc.nextLine();

System.out.println("Enter Train name:");

String name=sc.nextLine();

System.out.println("Enter train Number:");

int number=sc.nextInt();

System.out.println("Enter No of seats Available:");

int seats=sc.nextInt();

trains.add(new Train(number,name,seats));

}

static void bookTicket(){

sc.nextLine();

System.out.println("Enter your name:");

String name=sc.nextLine();

System.out.println("Enter Train Number:");

int number=sc.nextInt();

for(Train t:trains){

if(t.number==number){

if(t.seats>0){

t.seats--;

tickets.add(new Ticket(name,number));

System.out.println("Ticket Booked Successfully!");

}

else System.out.println("Ticket Unavailable :(");

return;

}

}

System.out.print("Train Not Found :(");

}

static void cancelTicket(){

System.out.println("Enter Ticket Id:");

int id=sc.nextInt();

for(int i=0;i<tickets.size();i++){

if(tickets.get(i).id==id){

int trainnumber=tickets.get(i).trainnumber;

tickets.remove(i);

for(Train t:trains){

if(t.number==trainnumber){

t.seats++;

break;

}

}

System.out.println("Ticket Cancelled");

return;

}

}

System.out.println("Ticket Not Found :(");

}

static void viewTicket(){

if(tickets.size()==0) System.out.print("No Ticket Booked");

for(Ticket t: tickets){

System.out.println("Train name:"+t.passenger+" train no:"+t.trainnumber+" Passenger Id:"+t.id);

}

}

}