**package** railway;

**import** java.util.Scanner;

**public** **class** Railway {

**public** **static** **void** main(String[] args) {

String[] dep\_time ={"Mon\t6:04", "Mon\t9:04", "Mon\t12:04", "Mon\t15:04", "Mon\t19:04", "Tue\t6:04", "Tue\t9:04", "Tue\t12:04", "Tue\t15:04", "Tue\t19:04", "Wed\t6:04", "Wed\t9:04", "Wed\t12:04", "Wed\t15:04", "Wed\t19:04"};

**int**[] pass\_nums = { 22,119,64,177,21,22,111,87,193,22,11,107,93,162,42};

Scanner rail = **new** Scanner(System.***in***);

**while**(**true**)

{

System.***out***.println("Enter your choice");

System.***out***.println("1. Display the information of all trains\n2. Find the most popular train\n3. Find the least popular train\n4. Compare the popularity of 6:04 train and 9:04 train\n5. Compare the popularity of 6:04 train on Monday and Tuesday\n6. Compare the popularity of any two trains of your choice\n7. Display the list of trains with passengers below 50\n8. Calculate the average number of passengers on 12:04 train\n9.Display the number of passengers on any train of your choice\n10. Quit");

**int** choice = rail.nextInt();

**switch**(choice)

{

**case** 1:

{System.***out***.println("Day\tDeparture Time\tNumber of passengers");

**for** (**int** i=0;i<dep\_time.length;i++)

System.***out***.println(dep\_time[i]+"\t\t"+pass\_nums[i]);

**break**;}

**case** 2:

{**int** mptrain = pass\_nums[0];

String popular = dep\_time[0];

**for** (**int** i=0; i<dep\_time.length; i++){

**if** (pass\_nums[i]>mptrain){

mptrain = pass\_nums[i];

popular = dep\_time[i];}}

System.***out***.println("The most popular train is running at "+popular+" with "+mptrain+" number of passengers");

**break**;}

**case** 3:

{

**int** lptrain = pass\_nums[0];

String least = dep\_time[0];

**for** (**int** i=0; i<dep\_time.length; i++){

**if** (pass\_nums[i]<lptrain){

lptrain = pass\_nums[i];

least = dep\_time[i];

}

}

System.***out***.println("The least popular train is running at "+least+" with "+lptrain+" number of passengers");

**break**;}

**case** 4:

{

**if**(pass\_nums[0]>pass\_nums[1])

System.***out***.println("Train 6:04 is more popular than Train 9:04 on Monday");

**else**

System.***out***.println("Train 6:04 is less popular than Train 9:04 on Monday");

**if**(pass\_nums[5]>pass\_nums[6])

System.***out***.println("Train 6:04 is more popular than Train 9:04 on Tuesday");

**else**

System.***out***.println("Train 6:04 is less popular than Train 9:04 on Tuesday");

**if**(pass\_nums[10]>pass\_nums[11])

System.***out***.println("Train 6:04 is more popular than Train 9:04 on Wednesday");

**else**

System.***out***.println("Train 6:04 is less popular than Train 9:04 on Wednesday");

**break**;}

**case** 5:

{

**if** (pass\_nums[0]>pass\_nums[5])

System.***out***.println("6:04 Train is more popular on Monday than Tuesday");

**else** **if** (pass\_nums[0]<pass\_nums[5])

System.***out***.println("6:04 Train is more popular on Tuesday than Monday");

**else**

System.***out***.println("6:04 Train is equally popular on Monday and Tuesday");

**break**;}

**case** 6:

{

System.***out***.println("Enter the serial numbers of two trains to be compared");

System.***out***.println("S.No.\tDay\tDeparture Time");

**for** (**int** i=0;i<dep\_time.length;i++)

System.***out***.println(i+"\t"+dep\_time[i]);

**int** k=rail.nextInt();

**int** d=rail.nextInt();

**if** (pass\_nums[k]>pass\_nums[d])

System.***out***.println(dep\_time[k]+" is more popular");

**else** **if** (pass\_nums[k]<pass\_nums[d])

System.***out***.println(dep\_time[d]+" is more popular");

**else**

System.***out***.println("Both trains are equally popular");

**break**;}

**case** 7:

{

System.***out***.println("The list of trains with below 50 passengers");

System.***out***.println("Day\tDeparture Time\tNumber of passengers");

**for** (**int** i=0; i<dep\_time.length; i++){

**if** (pass\_nums[i]<50){

System.***out***.println(dep\_time[i]+"\t\t"+pass\_nums[i]);

**break**;}

}

**break**; }

**case** 8:

{

System.***out***.println("The average number of passengers on 12:04 trains is "+((pass\_nums[2]+pass\_nums[7]+pass\_nums[12])/3.0));

**break**;}

**case** 9:

{

System.***out***.println("Ënter the serial number of train for which the number of passengers info is needed");

System.***out***.println("S. No.\tDay\tDeparture Time");

**for** (**int** i=0;i<dep\_time.length;i++)

System.***out***.println(i+"\t"+dep\_time[i]);

**int** z = rail.nextInt();

System.***out***.println("The number of passengers travel on "+dep\_time[z]+" is "+pass\_nums[z]);

**break**;}

**case** 10:

System.*exit*(0);

**break**;

}

}

}}