**package** train;

**import** java.util.Scanner;

**public** **class** train {

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

**int** quit = 1;

String[] Dt = {"mon","tue","wed"};

**double** [] pn = {6.04,9.04,12.04,15.04,19.04};

**int**[][] arr = {{22,119,64,177,21},{22,111,87,22,194},{11,107,94,162,42}};

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

**while** (quit != 0) {

System.*out*.println("\t\t Chennai To Trichy Service ");

**for** (**int** i = 0; i< 3; i++) {

**for** (**int** j = 0; j < 5; j++) {

System.*out*.println("Day: " + Dt[i] + "\t Departure Time: " + pn[j] + " " + "\t Number of passengers: " + arr[i][j]);

}

}

System.*out*.println("------------------------------------");

System.*out*.println("Most and least popular train");

**int** max = Integer.*MIN\_VALUE*;

**int** min = Integer.*MAX\_VALUE*;

**int** ii= 0 , jj =0;

**for**(**int** i = 0; i < 3; i++){

**for**(**int** j = 0; j < 5; j++){

**if**(arr[i][j] > max){

max = arr[i][j];

ii= i;

jj = j;

**if**(arr[i][j] < min){

min = arr[i][j];

ii = i;

jj = j;

}

}

}}

System.*out*.println("Maximum Value : " +max );

System.*out*.println("Day: " + Dt[ii] + "\t Time: " + pn[jj] + "\t Max no. of passengers: " + max);

System.*out*.println("Minimum Value : " +min);

System.*out*.println("Day: " + Dt[ii] + "\t Time: " + pn[jj] + "\t Min no. of passengers: " +min);

System.*out*.println("------------------------------------");

System.*out*.println("Comparing 6.04 train is more popular than the 9.04 train");

**if** ((arr[0][0] > arr[0][1])&&(arr[1][0] > arr[1][1]))

System.*out*.println("6.04 is more famous \n\n");

**else** **if** ((arr[1][0] > arr[1][1])&&(arr[2][0]>arr[2][1]))

System.*out*.println("6.04 is more famous\n");

**else** **if**((arr[0][0] < arr[0][1])&&(arr[1][0] < arr[1][1]))

System.*out*.println("9.04 is more famous\n\n");

**else** **if** ((arr[1][0] < arr[1][1])&&(arr[2][0]<arr[2][1]))

System.*out*.println("9.04 is more famous\n\n");

System.*out*.println("----------------------------------");

System.*out*.println("Comparing the 6.04 train on Monday is more popular than the 6.04 train on Tuesday");

**int** aa = arr[0][0];

**int** bb = arr[1][0];

**if**( aa == bb )

System.*out*.println("6.04 train Monday equals to 6.04 train on Tuesday " );

**else**

System.*out*.println("6.04 train Monday not equals to 6.04 train on Tuesday ");

System.*out*.println("----------------------------------");

System.*out*.println("passenger numbers were below 50:");

System.*out*.println("Day \t Time \t\t No. of Passengers");

**for** (**int** i = 0; i< 3; i++) {

**for** (**int** j = 0; j < 5; j++)

**if** (arr[i][j] <= 50)

System.*out*.println( Dt[i] + "\t " + pn[j] + "\t " + arr[i][j]);

}System.*out*.println("----------------------------------------------------------------");

System.*out*.println("Average number of passengers travelling on the 12.04 train over the three days ");

**int** n=3,sum=0;

**int** av=0;

**for** (**int** i = 0; i< 3; i++) {

**for** (**int** j = 2; j < 3; j++)

sum = sum + arr[i][j];

av = sum / n;

}

System.*out*.println("Total No.:"+sum);

System.*out*.println("Average.:"+av);

System.*out*.println("----------------------------------------------------------------");

System.*out*.println("Average number of passengers travelling where day and time is specified by the user");

System.*out*.print("Enter time: ");

**double** time1 = Sc.nextDouble();

System.*out*.print("Enter day: ");

String day1 = Sc.next();

**for**(**int** i = 0; i < 3; i++){

**for**(**int** j = 0; j < 5; j++){

**if** (time1 == pn[j]) {

**if** ((day1.compareTo(Dt[i]) == 0)){

sum = sum + arr[i][j];

av = sum / n;

}

System.*out*.println("Total No.:"+sum);

System.*out*.println("Average.:"+av);

System.*out*.println("----------------------------------------------------------------");

}

}

System.*out*.println("Compare two trains is more popular where day and time is specified by the user");

**int** h = 0, g = 0;

**int** a = 0, b = 0;

System.*out*.print("Enter time of train 1: ");

**double** time2 = Sc.nextDouble();

System.*out*.print("Enter day of train 1: ");

String day2 = Sc.next();

System.*out*.print("Enter time of train 2: ");

**double** time3 = Sc.nextDouble();

System.*out*.print("Enter of train 2: ");

String day3 = Sc.next();

**for** (**int** i1 = 0; i1< 3; i1++) {

**for** (**int** j = 0; j < 5; j++) {

**if** (time2 == pn[j]) {

**if** (day2==Dt[i1]) {

h = i1;

g = j;

}

}

**if** (time3 == pn[j]) {

**if** ((day3.compareTo(Dt[i1]) == 0)) {

a = i1;

b = j;

}

}}}

**if** (arr[h][g] > arr[a][b])

System.*out*.println("Train 1 is popular \n\n");

**else** **if** (arr[h][g] < arr[a][b])

System.*out*.println("Train 2 is popular\n\n");

**else** **if**(arr[h][g] == arr[a][b])

System.*out*.println("Equal\n\n");

**else**

System.*out*.println("Not Equal\n\n");

System.*out*.println("----------------------------------------------------------------");

System.*out*.println(" Quit.");

System.*out*.println("Press 1.Quit = 0 2.Continue = 1");

System.*out*.println("Enter:");

quit=Sc.nextInt();

System.*out*.println("Happy Journey");

System.*out*.println("----------------------------------------------------------------");

}

}

}

}