Question1:

Input :

Run (Main1) × Run (Main1) × Run (Main1)

```
Enter size of employee array
5
Enter employee information
Enter employee num
1
Enter employee name
Lama
Enter payRate Per Hour
200
Enter week number
1
Enter week Ending Date
12-3-2022
Enter employee work days
1 3 4  0 0
Enter employee information
Enter employee num
2
Enter employee name
Shahd
Enter payRate Per Hour
250
Enter week number
1
Enter week Ending Date
12-5-2022
Enter employee work days
5 4 8 0 0
Enter employee information
Enter employee num
1
Enter employee name
Lama
Enter payRate Per Hour
200
Enter week number
2
Enter week Ending Date
12-6-2022
Enter employee work days
1 8 8 8  8
Enter employee information
Enter employee num
3
Enter employee name
Rami
Enter payRate Per Hour
300
Enter week number
1
Enter week Ending Date
12-7-2022
Enter employee work days
5 5 6 0 8
Enter employee information
Enter employee num
3
Enter employee name
Rami
Enter payRate Per Hour
300
Enter week number
2
Enter week Ending Date
12-4-2022
Enter employee work days
8 8 8 8 1
```

Output:

```
EmpNo    week      Total Days/hours        weekly Payment
1        1            3/8                     1600.0
2        1            3/17                            4250.0
1        2            5/33                            6600.0
3        1            4/24                            7200.0
3        2            5/33                            9900.0
Enter week num to find employees that have 2 absent in that week
1
Lama has 2 days absent in  week 1
Shahd has 2 days absent in  week 1
[employees [ empNo= 1 ,name= Lama ,payRatePerHour= 200.0 ,total hour= 8 ,payment= 1600.0 ]
 , employees [ empNo= 2 ,name= Shahd ,payRatePerHour= 250.0 ,total hour= 17 ,payment= 4250.0 ]
 , employees [ empNo= 1 ,name= Lama ,payRatePerHour= 200.0 ,total hour= 33 ,payment= 6600.0 ]
 , employees [ empNo= 3 ,name= Rami ,payRatePerHour= 300.0 ,total hour= 24 ,payment= 7200.0 ]
 , employees [ empNo= 3 ,name= Rami ,payRatePerHour= 300.0 ,total hour= 33 ,payment= 9900.0 ]
 ]
------------------------------------------------------------------------
BUILD SUCCESS
```

```
package com.mycompany.main1;

import java.util.Arrays;
import java.util.Scanner;



public class Main1 {

   public static void printAbsents(employee [] arr,int week ){



       for (int i=0;i<5;i++){
           if ( arr[i].getWeek()==week &&arr[i].getTotalDay()<4){

               System.out.println (arr[i].getName()+" has 2 days absent in  week "+week);

         }

      }

   }
   public static void sortEmps (employee[] arr){
      Arrays.sort(arr);
      System.out.println(Arrays.toString(arr));

   }
```

```
    public static void printInfo(employee [] arr){
    double payment;

        System.out.println( "EmpNo  " +"\t"+"week" +"\t"+" Total Days/hours " +"\t"+"weekly Payment");
        for (int  j=0;j<5;j++){
           payment=0;
           payment=arr[j].getPayRatePerHour()*arr[j].getTotalhour();
           arr[j].setPayment(payment);
          System.out.println(arr[j].getEmpNo()+"\t"+ arr[j].getWeek()+"\t
"+arr[j].getTotalDay()+"/"+arr[j].getTotalhour()+"                    "+payment);

           }

      }

      public static void main(String[] args) {
         Scanner in=new  Scanner (System.in);
         System.out.print("Enter size of employee array");
        int size=in.nextInt();
        employee []arr=new employee[size];

        int totalHour=0;
        int week=0;
        double payment=0;
        int totaldays = 0;
        timecard []timecard =new timecard[4];

        int []workday =new int[5];
```

```
for (int  k=0 ;k<size;k++){
        System.out.println ("Enter employee information ");
        System.out.println ("Enter employee num ");


        int empNo=in.nextInt();
        System.out.println ("Enter employee name ");
        String name=in.next();
        System.out.println ("Enter payRate Per Hour");
        double payRatePerHour=in.nextDouble();
        System.out.println ("Enter week number");
        week=in.nextInt();
        System.out.println ("Enter week Ending Date");
        String weekEndingDate=in.next();

        totaldays=0;
        totalHour=0;

        System.out.println ("Enter employee work days ");
        for (int  i=0 ;i<=4;i++){

           workday[i]=in.nextInt();


             if (workday[i]>0&&workday[i]<=8){
                totaldays++;
                totalHour+=workday[i];

             }

        }
```

```
    timecard [k]= new timecard(weekEndingDate,workday);


                arr[k]=new employee( empNo, name, payRatePerHour, week,
totaldays,totalHour,payment,timecard);


        }




          printInfo(arr);
           System.out.println("Enter week num to find employees that have 2 absent in that week");
           int week1=in.nextInt();
           printAbsents(arr,week1);


           sortEmps(arr);


       }

}
```

```
class employee implements Comparable<employee>{
  private int empNo;
  private String name;
   private double payRatePerHour;
   private int week;
   private int totalDay;
   private double payment;
   private int totalhour;

  timecard [] time =new timecard [4];

   public employee() {
   }
  public employee(int empNo, String name, double payRatePerHour, int week, int totalDay,int
totalhour,double payment,timecard [] time) {
      this.empNo = empNo;
      this.name = name;
      this.payRatePerHour = payRatePerHour;
      this.week = week;
      this.totalDay = totalDay;
      this.totalhour=totalhour;
      this.time=time;
      }


   public int getEmpNo() {
      return empNo;
   }
```

```
public String getName() {
    return name;
}

public double getPayRatePerHour() {
    return payRatePerHour;
}

public int getWeek() {
    return week;
}

public int getTotalDay() {
    return totalDay;
}

public timecard [] getTime() {
    return time;
}

public double getPayment() {
    return payment;
}

public void setPayment(double payment) {
    this.payment = payment;
}

public void setEmpNo(int empNo) {
    this.empNo = empNo;
}
```

```
public void setName(String name) {
   this.name = name;
}

public void setPayRatePerHour(double payRatePerHour) {
   this.payRatePerHour = payRatePerHour;
}

public void setWeek(int week) {
   this.week = week;
}

public int getTotalhour() {
   return totalhour;
}

public void setTotalhour(int totalhour) {
   this.totalhour = totalhour;
}


public void setTotalDay(int totalDay) {
   this.totalDay = totalDay;
}

public void setTime(timecard [] time) {
   this.time = time;
}
```

```
 @Override
    public String toString(){
       return "employees [ empNo= "+empNo +" ,name= " + name+" ,payRatePerHour= "+payRatePerHour
+ " ,total hour= "+totalhour+" ,payment= "+payment+" ]\n ";
    }

    @Override
    public int compareTo(employee o) {
      return (int)(this.payment - o.payment);
    }

}
```

```
class timecard{
   private  String weekEndingDate;
    private int []workday  ;

   public timecard() {
   }

   public timecard(String weekEndingDate, int [] workday) {
      this.weekEndingDate = weekEndingDate;
      this.workday = workday;
   }

   public String getWeekEndingDate() {
      return weekEndingDate;
   }


public int []getWorkday() {
      return workday;
   }
   public void setWeekEndingDate(String weekEndingDate) {
      this.weekEndingDate = weekEndingDate;
   }

   public void setWorkday(int [] workday) {
      this.workday = workday;
   }


}
```