Q1 - Hello World First Java Program.
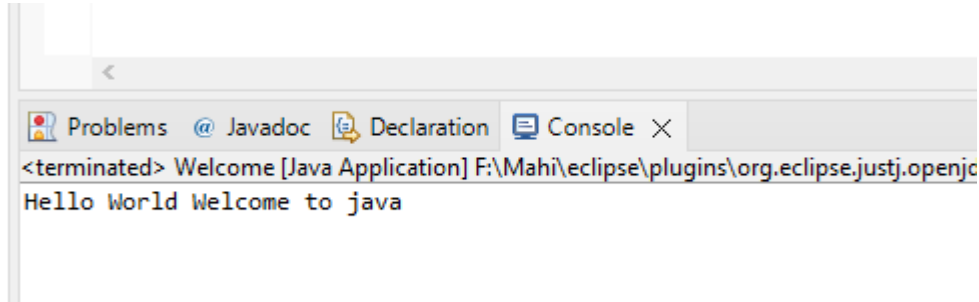
Ans -
```java
package day1;

public class Welcome {
    public static void main(String[] args) {
        System.out.println("Hello World Welcome to java");
    }
}
```
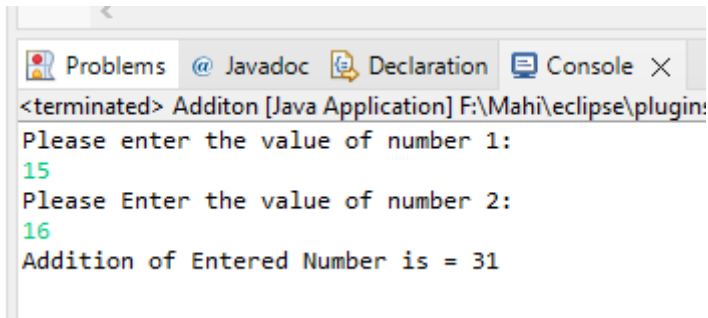
Output -

Problems @ Javadoc Declaration Console X
<terminated> Welcome [Java Application] F:\Mahi\eclipse\plugins\org.eclipse.justj.openjc
Hello World Welcome to java

Q2 – Addition of Two Number in java.

Ans -
```java
package day1;

import java.util.Scanner;

public class Additon {

    public static void main(String[] args) {
        Scanner input=new Scanner(System.in);
        System.out.println("Please enter the value of number 1:");
        int num1  = input.nextInt();
        System.out.println("Please Enter the value of number 2:");
        int num2 = input.nextInt();
        int ans= num1+num2;
        System.out.println("Addition of Entered Number is = "+ ans);
        input.close();
    }
}
```

Output -

Problems @ Javadoc Declaration Console X
<terminated> Additon [Java Application] F:\Mahi\eclipse\plugins
Please enter the value of number 1:
15
Please Enter the value of number 2:
16
Addition of Entered Number is = 31

Q3 – Swap two number in java.

Ans -
```java
package day1;

import java.util.Scanner;

public class SwapTwoNumber {

    public static void main(String[] args) {
        Scanner in=new Scanner(System.in);
```
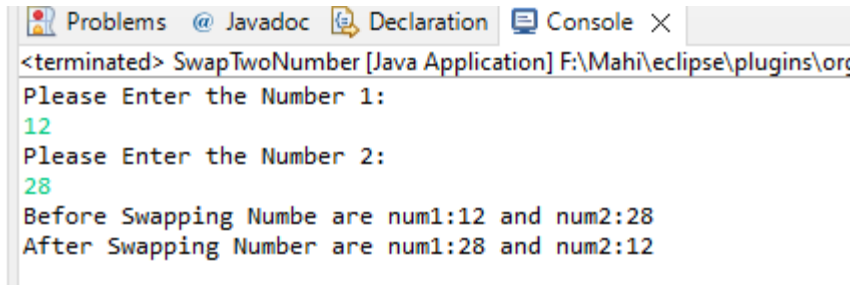
```java
        System.out.println("Please Enter the Number 1:");
        int num1=in.nextInt();
        System.out.println("Please Enter the Number 2:");
        int num2 =in.nextInt();
        System.out.println("Before Swapping Numbe are num1:"+num1+ " and num2:"+num2);
        num1=num1+num2;
        num2=num1-num2;
        num1=num1-num2;
        System.out.println("After Swapping Number are num1:"+num1+ " and num2:"+num2);
        in.close();
    }
}
```

OutPut -

```
Please Enter the Number 1:
12
Please Enter the Number 2:
28
Before Swapping Numbe are num1:12 and num2:28
After Swapping Number are num1:28 and num2:12
```

Q4 – check even or odd in java.

Ans -
```java
package day1;

import java.util.Scanner;

public class EvenOdd {

    public static void main(String[] args) {
        System.out.println("Please Enter the number want to check Even or odd:");
        Scanner in = new Scanner(System.in);
        int num = in.nextInt();
        if (num % 2 == 0) {
            System.out.println("Entered Number is Even");
        } else
            System.out.println("Entered Numbe is odd");
        in.close();
    }
}
```
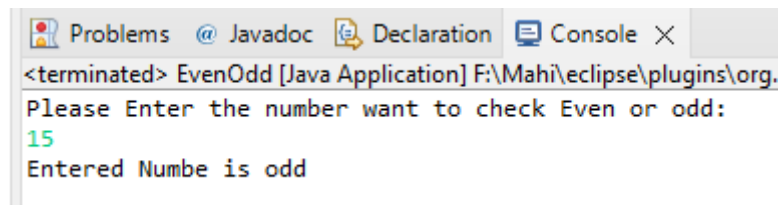
Output -

```
Please Enter the number want to check Even or odd:
15
Entered Numbe is odd
```

Q5 – Divisible by 5 and 7 in java.

Ans -
```java
package day1;

import java.util.Scanner;

public class Divisibilityby5and7 {

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

```java
Scanner in = new Scanner(System.in);
System.out.println("Enter the number to check divisible or not by 5 and 7 :");
int num = in.nextInt();
if (num % 5 == 0 && num % 7 == 0) {
        System.out.println("Entered number is divisible by 5 and 7 both");
} else
        System.out.println("Entered number is not divisible by 5 and 7");
in.close();
    }
}
```

Output

Q6 – Calculate Income tax using basic salary.

Ans - `package` day1;

`import` java.util.Scanner;

`public class` SalaryOfEmployee {

```java
    public static void main(String[] args) {
            Scanner in = new Scanner(System.in);
            System.out.println("Please Enter the basic salary of employee:");
            int basicSalary=in.nextInt();
            int netSalary=0;
            if(basicSalary<150000) {
                    netSalary=basicSalary+0;
            }
            else if(basicSalary > 150000 && basicSalary < 300000) {
                    netSalary=(int) (basicSalary-0.2*basicSalary);
            }
            else
                    netSalary=(int) (basicSalary-basicSalary*0.3);
            System.out.println("Net Salary of Employee is :"+ netSalary);
            in.close();
    }
}
```
Output -

Q7 – Check vowel or not Character from user.

Ans - `package` day1;
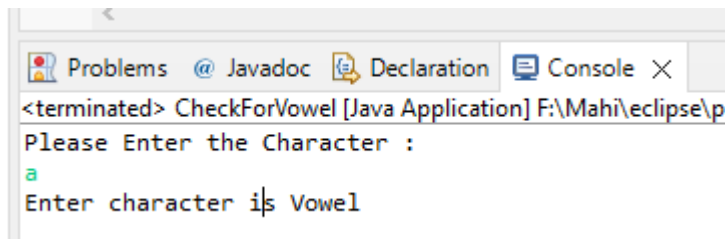
`import` java.util.Scanner;

```java
public class CheckForVowel {

    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("Please Enter the Character :");
        char ch =in.next().charAt(0);
        switch(ch) {
        case 'a':
        case 'e':
        case 'i':
        case 'o':
        case 'u':
        case 'A':
        case 'E':
        case 'I':
        case 'O':
        case 'U':
            System.out.println("Enter character is Vowel");
        break;
        default:
            System.out.println("Enter character is consonant");
        }
        in.close();
    }
}
```

Output -

Q8 – Angle is valid or not.

Ans - `package day1;`

`import java.util.Scanner;`

```java
public class AngleIsValid {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("Enter the all Angle of Triangle :");
        int a1 = in.nextInt();
        int a2 = in.nextInt();
        int a3 = in.nextInt();
        int angle = a1 + a2 + a3;
        if (angle == 180) {
            System.out.println("This is a valid Triangle");
        } else
            System.out.println("This is not valid Triangle");
        in.close();
    }
}
```

Output –
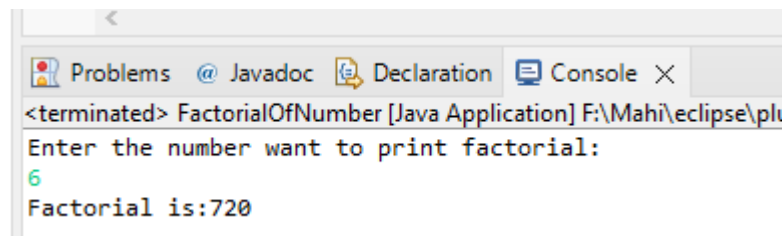
Q9 – Factorial of Input number from user.

Ans - **package** day1;

import java.util.Scanner;

public class FactorialOfNumber {

```
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("Enter the number want to print factorial:");
        int num = in.nextInt();
        int fact = 1;
        for (int i = 1; i < num; i++) {
            fact = fact + fact * i;
        }
        System.out.println("Factorial is:"+fact);
        in.close();
    }
}
```

Output


```
Problems  @ Javadoc  Declaration  Console X
<terminated> FactorialOfNumber [Java Application] F:\Mahi\eclipse\pl
Enter the number want to print factorial:
6
Factorial is:720
```
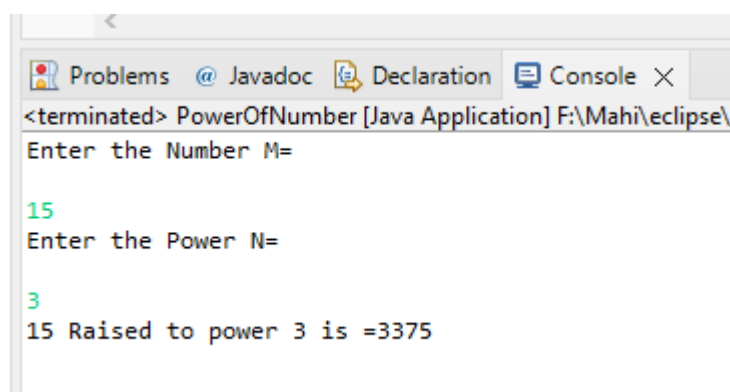
Q10 - Power m raise to n from user.
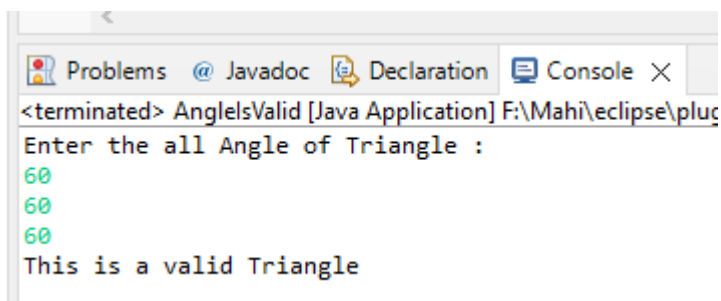
Ans - **package** day1;

import java.util.Scanner;

public class PowerOfNumber {
```
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("Enter the Number M=\n");
        int num = in.nextInt();
        System.out.println("Enter the Power N=\n");
        int n = in.nextInt();
        int power = 1;
        for (int i = 0; i < n; i++) {
            power =power*num;
        }
        System.out.println(num + " Raised to power " + n + " is =" + power);
        in.close();
    }
}
```

Output –


```
Problems  @ Javadoc  Declaration  Console X
<terminated> PowerOfNumber [Java Application] F:\Mahi\eclipse\
Enter the Number M=

15
Enter the Power N=

3
15 Raised to power 3 is =3375
```
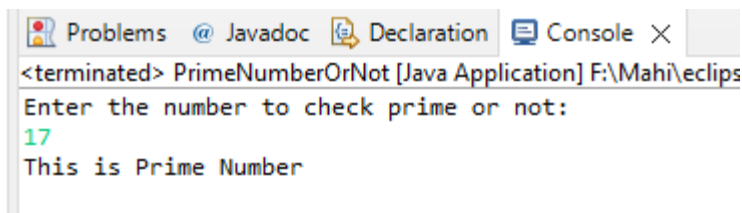
Q11 – Check Number prime or not.

Ans - `package` day1;

```java
import java.util.Scanner;

public class PrimeNumberOrNot {

    public static void main(String[] args) {
        Scanner in= new Scanner(System.in);
        System.out.println("Enter the number to check prime or not:");
        int num=in.nextInt();
        int count=0;
        for(int i=1;i<=num;i++) {
            if(num%i==0) {
                count++;
            }
        }
        if(count==2) {
            System.out.println("This is Prime Number ");
        }
        else
        {
            System.out.println("This is not Prime Number ");
        }
        in.close();
    }
}
```

Output -


```
Problems  @ Javadoc  Declaration  Console ×
<terminated> PrimeNumberOrNot [Java Application] F:\Mahi\eclips
Enter the number to check prime or not:
17
This is Prime Number
```
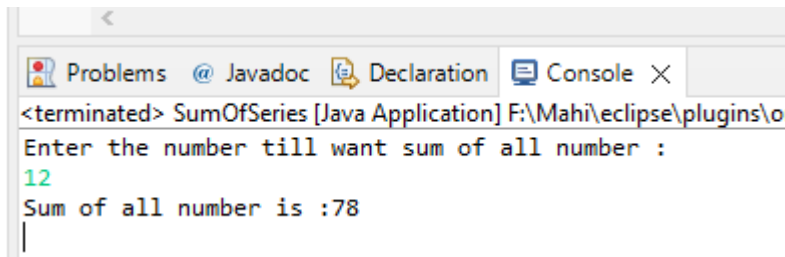
Q12 – Sum of series 1+2+3.....n

Ans - `package` day1;

```java
import java.util.Scanner;

public class SumOfSeries {

    public static void main(String[] args) {
        Scanner in= new Scanner(System.in);
        System.out.println("Enter the number till want sum of all number :");
        int num=in.nextInt();
        int ans =0;
        for(int i=0;i<=num;i++) {
            ans+=i;
        }
        System.out.println("Sum of all number is :"+ans);
        in.close();
    }
}
```

Output –


```
Problems  @ Javadoc  Declaration  Console ×
<terminated> SumOfSeries [Java Application] F:\Mahi\eclipse\plugins\o
Enter the number till want sum of all number :
12
Sum of all number is :78
```

Q13 – Palindrome or not.

Ans - **package** day1;

import java.util.Scanner;

public class PalindromeNumber {

    public static void main(String[] args) {
        Scanner in = **new** Scanner(System.*in*);
        System.*out*.println("Enter the number to check Palindrome or not:");
        int num = in.nextInt();
        int original = num;
        int rev = 0, rem;
        while (num != 0) {
            rem = num % 10;
            rev = rev * 10 + rem;
            num = num / 10;
        }
        if (rev == original) {
            System.*out*.println("This is Palindrome Number");
        } **else** {
            System.*out*.println("This is not Palindrome");
            in.close();
        }
    }
}

Output -


```
Problems  @ Javadoc  Declaration  Console ×
<terminated> PalindromeNumber [Java Application] F:\Mahi\eclipse\plu
Enter the number to check Palindrome or not:
121
This is Palindrome Number
```

Q14 – Sum of Odd and Even up to n.

Ans - **package** day1;

import java.util.Scanner;

public class SumOfEvenAndOddNumber {

    public static void main(String[] args) {
        Scanner in = **new** Scanner(System.in);
        System.out.println("Enter the Number for sum of all even and odd:");
        int num = in.nextInt();
        int sumofeven = 0;
```

```
            int sumofodd = 0;
            for (int i = 1; i <= num; i++) {
                    if (num % i == 0) {
                            sumofeven = sumofeven + i;
                    } else {
                            sumofodd += i;
                    }
            }
            System.out.println("The sum of all  Even number :" + sumofeven);
            System.out.println("The sum of all odd number :" + sumofodd);
            in.close();
        }
}
```

Output –

Q15 – Reverse of number.

Ans -   **package** day1;

import java.util.Scanner;

public class ReverseOfNumber {

```
    public static void main(String[] args) {
            Scanner in = new Scanner(System.in);
            System.out.println("Enter the number for Reverse of Number :");
            int num = in.nextInt();
            int rem, rev = 0;
            while (num > 0) {
                    rem = num % 10;
                    rev = rev * 10 + rem;
                    num = num / 10;
            }
            System.out.println("Reverse of given number is :" + rev);
            in.close();
    }
}
```

Output –

Q16 – Printing all prime Number up to n.

Ans - **package** day1;
import java.util.Scanner;
public class PrimeNumerUptoN {
```
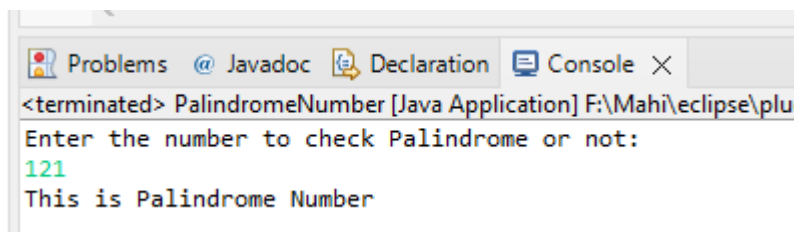    public static void main(String[] args) {
            Scanner in = new Scanner(System.in);
            System.out.println("Enter the number to print all prime number:");
            int maxNumber = in.nextInt();
```

```java
        for (int num = 2; num <= maxNumber; num++) {
            boolean isPrime = true;
            for (int i = 2; i <= num / 2; i++) {
                if (num % i == 0) {
                    isPrime = false;
                    break;
                }
            }
            if (isPrime == true)
                System.out.println(num);
            in.close();
        }
    }
}
```

Output –

Q17 – Number Armstrong or not.

Ans -
```java
package day1;
import java.util.Scanner;
public class ArmstrongNumber {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("Enter the number to check Armstrong or not :");
        int number = in.nextInt();
        int originalNumber, remainder, result = 0;
        originalNumber = number;
        while (originalNumber != 0) {
            remainder = originalNumber % 10;
            result += Math.pow(remainder, 3);
            originalNumber /= 10;
        }
        if (result == number)
            System.out.println(number + " is an Armstrong number.");
        else
            System.out.println(number + " is not an Armstrong number.");
        in.close();
    }
}
```

Output –

Q18 – Maximum in three number.

Ans -
```java
package day1;
import java.util.Scanner;
public class MaximumOfThreeNumber {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("Enter the Three number one by one:");
        int num1 = in.nextInt();
        int num2 = in.nextInt();
        int num3 = in.nextInt();
        if (num1 > num2 && num1 > num3) {
            System.out.println("Number 1 is Maximum Number among three");
        } else if (num2 > num1 && num2 > num3) {
            System.out.println("Number 2 is Maximum Number among three");
        } else if (num3 > num1 && num3 > num2) {
            System.out.println("Number 3 is Maximum Number among three");
        }in.close();
    }
}
```

Output –

Problems @ Javadoc Declaration Console ✕

\<terminated\> MaximumOfThreeNumber [Java Application] F:\Mah

Enter the Three number one by one:
3
2
1
Number 1 is Maximum Number among three

Q19 – Menu driven for pizza shop.

Ans -
```java
package day1;
import java.util.Scanner;
public class MenuDrivenPizzaShop {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("----Menu----");
        System.out.println("1:Plane Pizza(100) 2:Cheeze Pizza(120) 3:Margerita(150) 4:Exit");
        int choice, qty, total = 0;
        do {
            System.out.println("Enter choice");
            choice = in.nextInt();
            switch (choice) {
            case 1:
                System.out.println("Enter the Qauntity of Pizza:");
                qty = in.nextInt();
                total = qty * 100;
                break;
            case 2:
                System.out.println("Enter the Qauntity of Pizza:");
                qty = in.nextInt();
                total = total + qty * 120;
                break;
            case 3:
                System.out.println("Enter the Qauntity of Pizza:");
                qty = in.nextInt();
                total = total + qty * 150;
                break;
            case 4:
                System.out.println("Total Bill:" + total);
                break;
```

```java
                default:
                        System.out.println("Invalid Input");
                }
        } while (choice != 4);
        in.close();
        }
}
```

Output –

```
----Menu----
1:Plane Pizza(100) 2:Cheeze Pizza(120) 3:Margerita(150) 4:Exit
Enter choice
2
Enter the Qauntity of Pizza:
3
Enter choice
1
Enter the Qauntity of Pizza:
1
Enter choice
4
Total Bill:100
```

Q20 – Convert digit into words.

Ans – **package** day1;

```java
import java.util.Scanner;
public class DisplayInWords {
        public static void main(String[] args) {
                Scanner in = new Scanner(System.in);
                System.out.println("Enter the Number to display in words:");
                int num = in.nextInt();
                switch (num) {
                case 1:
                        System.out.println("ONE");
                        break;
                case 2:
                        System.out.println("TWO");
                        break;
                case 3:
                        System.out.println("THREEE");
                        break;
                case 4:
                        System.out.println("FOUR");
                        break;
                case 5:
                        System.out.println("FIVE");
                        break;
                case 6:
                        System.out.println("SIX");
                        break;
                case 7:
                        System.out.println("SEVEN");
                        break;
                case 8:
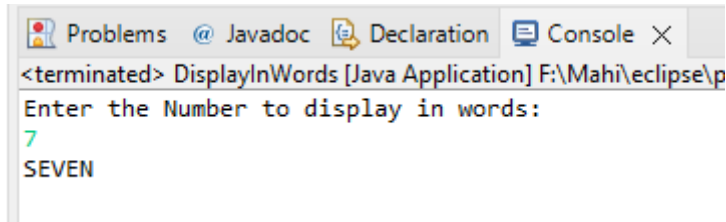                        System.out.println("EIGHT");
                        break;
                case 9:
                        System.out.println("NINE");
                        break;
                default:
```

```
                System.out.println("Invalid Entry , Please Enter Valid Entry");
                in.close();
            }
        }
    }
```

Output –


```
Problems  @ Javadoc  Declaration  Console ×
<terminated> DisplayInWords [Java Application] F:\Mahi\eclipse\p
Enter the Number to display in words:
7
SEVEN
```

Q21 - Menu driven operation on operators.

Ans – **package** day1;
import java.util.Scanner;
public class MenuDrivenOperation {
    public static void main(String[] args) {
        Scanner in = **new** Scanner(System.*in*);
        int ans, num1, num2, choice;
        do {
            System.*out*.println("Enter the choice that operation want to perform");
            System.*out*.println("1:Addition 2:Subtraction 3:Multiplication 4:Division 5:Exit");

            choice = in.nextInt();
            switch (choice) {
            case 1:
                System.*out*.println("Please Enter Numbers :");
                num1 = in.nextInt();
                num2 = in.nextInt();
                ans = num1 + num2;
                System.*out*.println("Addition of two Number is = " + ans);
                break;
            case 2:
                System.*out*.println("Please Enter Numbers :");
                num1 = in.nextInt();
                num2 = in.nextInt();
                ans = num1 - num2;
                System.*out*.println("Subtraction of two number is = " + ans);
                break;
            case 3:
                System.*out*.println("Please Enter Numbers :");
                num1 = in.nextInt();
                num2 = in.nextInt();
                ans = num1 * num2;
                System.*out*.println("Multiplication of two number is = " + ans);
                break;
            case 4:
                System.*out*.println("Please Enter Numbers :");
                num1 = in.nextInt();
                num2 = in.nextInt();
                ans = num1 / num2;
                System.*out*.println("Division of Two Number is = " + ans);
                break;
            case 5:
                System.*out*.println("-----Program End------");
                break;
            default:
                System.*out*.println("INVALID CHOICE");
            }
        } **while** (choice != 5);
        in.close();
```

```
        }
}
```

Output

```
Enter the choice that operation want to perform
1:Addition 2:Subtraction 3:Multiplication 4:Division 5:Exit
1
Please Enter Numbers :
12
13
Addition of two Number is = 25
Enter the choice that operation want to perform
1:Addition 2:Subtraction 3:Multiplication 4:Division 5:Exit
2
Please Enter Numbers :
23
2
Subtraction of two number is = 21
Enter the choice that operation want to perform
1:Addition 2:Subtraction 3:Multiplication 4:Division 5:Exit
3
Please Enter Numbers :
5
3
Multiplication of two number is = 15
Enter the choice that operation want to perform
1:Addition 2:Subtraction 3:Multiplication 4:Division 5:Exit
4
Please Enter Numbers :
27
3
Division of Two Number is = 9
Enter the choice that operation want to perform
1:Addition 2:Subtraction 3:Multiplication 4:Division 5:Exit
5
-----Program End------
```
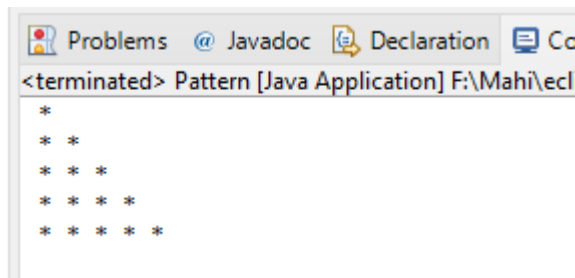
Q1 - Java program to print the following pattern on the console

Ans - ```package day2and3;```

```java
public class Pattern {

    public static void main(String[] args) {
        for (int i = 0; i < 5; i++) {
            for (int j = 0; j <= i; j++) {
                System.out.print(" *");
            }
            System.out.println();
        }
    }
}
```

Output –

Q2 - Write a program which will accept student information like rollno,name,5 subject marks.calculate total and percentage.calculate grade.per>75 grade :A per<74and>60 :B per<59 :C

Ans - ```package day2and3;```

```java
import java.util.Scanner;

public class StudentInfo {

    public static void main(String[] args) {
        Scanner in=new Scanner(System.in);
        System.out.println("Enter the Information of student - ");
        System.out.println("Enter the Roll Number of student : ");
        int rollNo=in.nextInt();
        System.out.println("Enter Name of student :");
        String name= in.next();
        System.out.println("Enter the marks of student in 5 subject out of 100 mark:");
        int m1=in.nextInt();
        int m2=in.nextInt();
        int m3=in.nextInt();
        int m4=in.nextInt();
        int m5=in.nextInt();
        int total=m1+m2+m3+m4+m5;
        float perc=total/5;
        if(perc>75) {
            System.out.println("Name : "+ name + "\nRoll Number : "+rollNo);
            System.out.println("Percentage : " +perc +"\nGrade : A");
        }
        else if(perc>60&&perc<74) {
            System.out.println("Name : "+name + "\nRoll Number : "+rollNo);
            System.out.println("Percentage   : " +perc +"\nGrade : B" );
        }else {
            System.out.println("Name : "+name+ "\nRoll Number : "+rollNo);
```

```java
                System.out.println("Percentage :"+perc + "Grade : c");
                in.close();
            }
        }
    }
```

Output –

```
Enter the Information of student -
Enter the Roll Number of student :
12
Enter Name of student :
Mahendra
Enter the marks of student in 5 subject out of 100 mark:
98
85
65
78
84
Name : Mahendra
Roll Number : 12
Percentage : 82.0
Grade : A
```

Q3 - Write a Java program to find the maximum and minimum value of an array.

Ans -
```java
package day2and3;
import java.util.Scanner;
public class MaxandMininArray {

    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("How many Element you want to enter in Array: ");
        int No = in.nextInt();
        int[] arr = new int[No];
        System.out.println("Enter the element of Array");
        for (int i = 0; i < No; i++) {
            arr[i] = in.nextInt();
        }
        int max = arr[0], min = arr[0];
        for (int i = 0; i < No; i++) {
            if (max < arr[i]) {
                max = arr[i];
            }
            if (min > arr[i]) {
                min = arr[i];
            }
        }
        System.out.println("Maximum =" + max + "\nMinimum = " + min);
        in.close();
    }
}
```
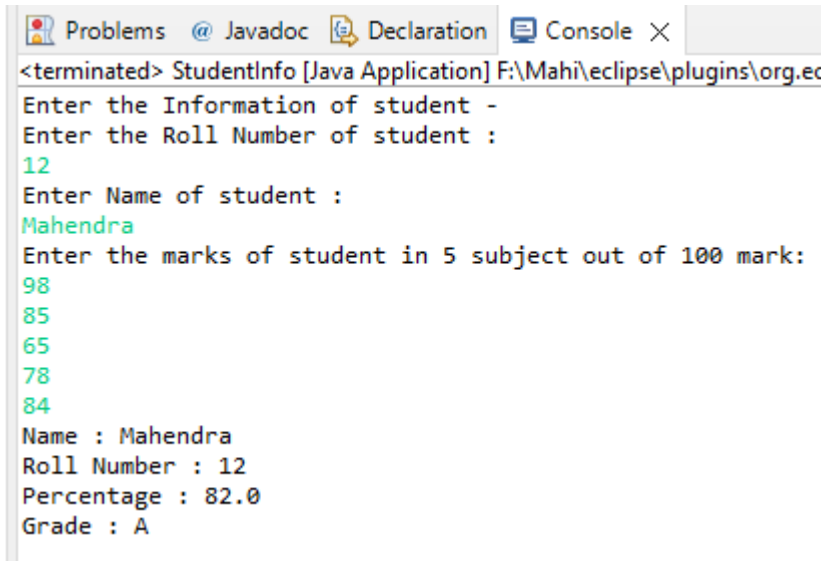
Output –

```
How many Element you want to enter in Array:
5
Enter the element of Array
12
15
49
74
2
Maximum =74
Minimum = 2
```
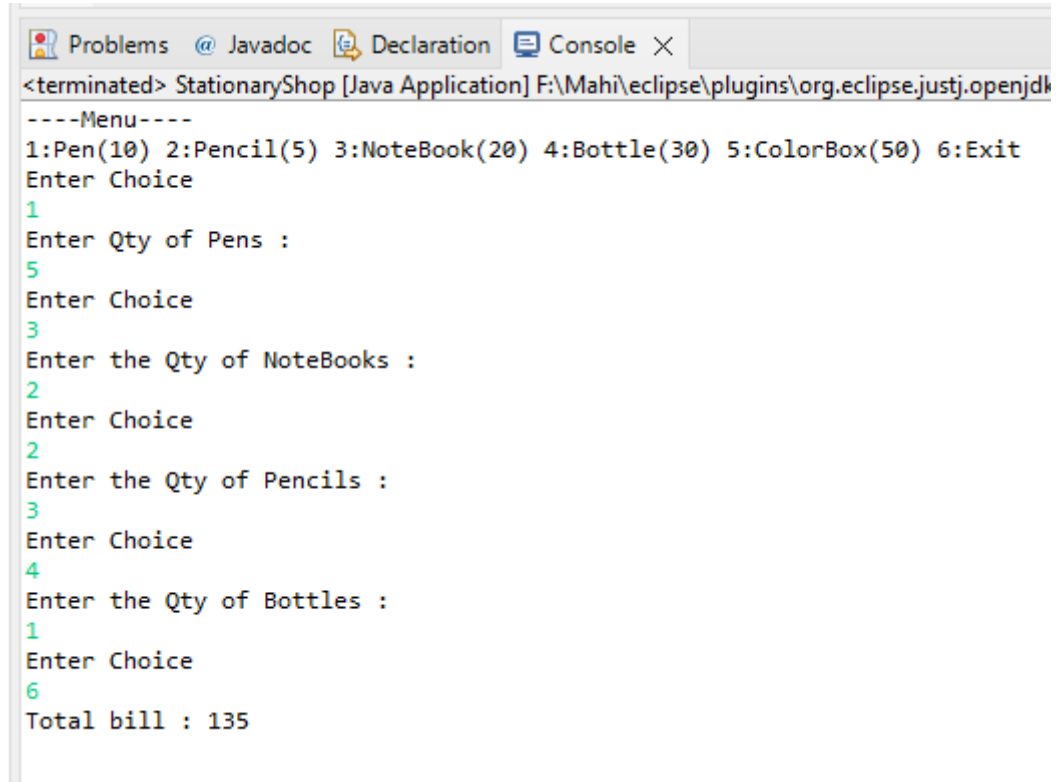
Q4 - Write a menu driven program for stationary shop. Items are 1:Pen 2:Pencil 3:NoteBook 4:Bottle 5:ColorBox.1 pen cost is 10Rs,Pencil is 5 rs. NoteBook is 20 rs Bottle is 30 rs and ColorBox is at 50 Rs. Calculate Total of all purchesed items.
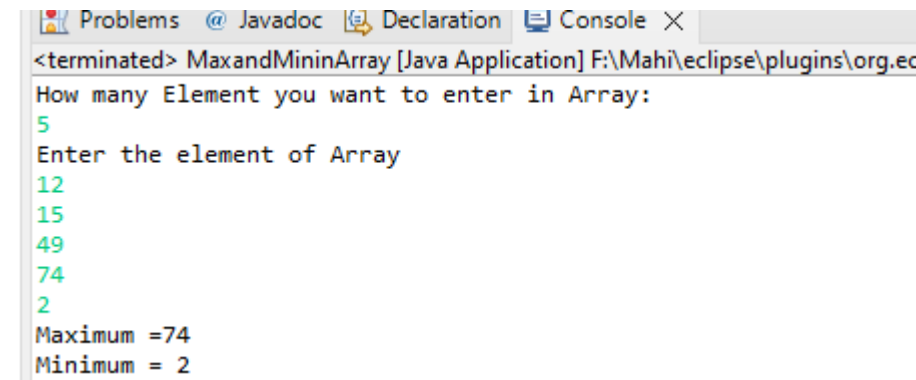
Ans - **package** day2and3;

```java
import java.util.Scanner;
public class StationaryShop {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("----Menu----");
        System.out.println("1:Pen(10) 2:Pencil(5) 3:NoteBook(20) 4:Bottle(30) 5:ColorBox(50) 6:Exit");
        int qty, choice, total = 0;
        do {
            System.out.println("Enter Choice ");
            choice = in.nextInt();
            switch (choice) {
            case 1:
                System.out.println("Enter Qty of Pens : ");
                qty = in.nextInt();
                total = total + qty * 10;
                break;
            case 2:
                System.out.println("Enter the Qty of Pencils :");
                qty = in.nextInt();
                total = total + qty * 5;
                break;
            case 3:
                System.out.println("Enter the Qty of NoteBooks :");
                qty = in.nextInt();
                total = total + qty * 20;

                break;
            case 4:
                System.out.println("Enter the Qty of Bottles : ");
                qty = in.nextInt();
                total = total + qty * 30;
                break;
            case 5:
                System.out.println("Enter the Qty of Colorbox : ");
                qty = in.nextInt();
                total = total + qty * 50;
                break;
            case 6:
                System.out.println("Total bill : " + total);
            }
        } while (choice != 6);
        in.close();
    }
}
```

Output –

```
----Menu----
1:Pen(10) 2:Pencil(5) 3:NoteBook(20) 4:Bottle(30) 5:ColorBox(50) 6:Exit
Enter Choice
1
Enter Qty of Pens :
5
Enter Choice
3
Enter the Qty of NoteBooks :
2
Enter Choice
2
Enter the Qty of Pencils :
3
Enter Choice
4
Enter the Qty of Bottles :
1
Enter Choice
6
Total bill : 135
```

Q5 - Write a Java program to accept 2D aaray elements.Display all elements.

Ans -
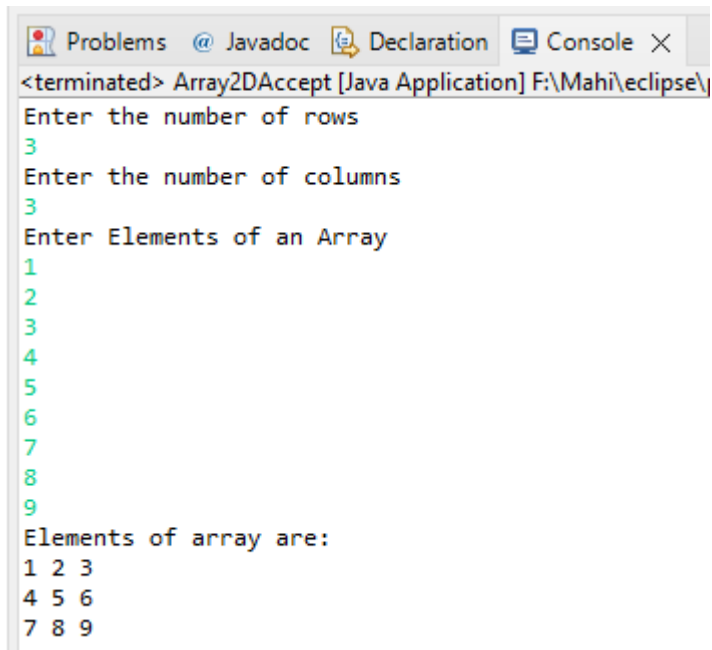
```java
package day2and3;

import java.util.Scanner;

public class Array2DAccept {

    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("Enter the number of rows");
        int row = in.nextInt();
        System.out.println("Enter the number of columns");
        int col = in.nextInt();
        int[][] arr = new int[row][col];
        System.out.println("Enter Elements of an Array");
        for (int i = 0; i < row; i++) {
            for (int j = 0; j < col; j++) {
                arr[i][j] = in.nextInt();
            }
        }
        System.out.println("Elements of array are:");
        for (int i = 0; i < row; i++) {
            for (int j = 0; j < col; j++) {
                System.out.print(arr[i][j] + " ");
            }
            System.out.println();
            in.close();
        }
    }
}
```

Output -

```
 Problems  @ Javadoc  Declaration  Console ✕
<terminated> Array2DAccept [Java Application] F:\Mahi\eclipse\
Enter the number of rows
3
Enter the number of columns
3
Enter Elements of an Array
1
2
3
4
5
6
7
8
9
Elements of array are:
1 2 3
4 5 6
7 8 9
```

Q6 - Write a java program to make the addition of two 2D array And store result in Third array.

Ans - **package** day2and3;

import java.util.Scanner;

public class Addition2DArray {

    public static void main(String[] args) {
        Scanner in = **new** Scanner(System.***in***);
        System.***out***.println("Enter the number of row for 1st 2D Array: ");
        int row1 = in.nextInt();
        System.***out***.println("Enter the number of column for 1st 2D Array: ");
        int col1 = in.nextInt();
        System.***out***.println("Enter the number of row for 2nd 2D Array: ");
        int row2 = in.nextInt();
        System.***out***.println("Enter the number of column for 2nd 2D Array: ");
        int col2 = in.nextInt();
        int[][] arr = **new int**[row1][col1];
        int[][] arr2 = **new int**[row2][col2];
        int[][] arr3 = **new int**[row1][col1];
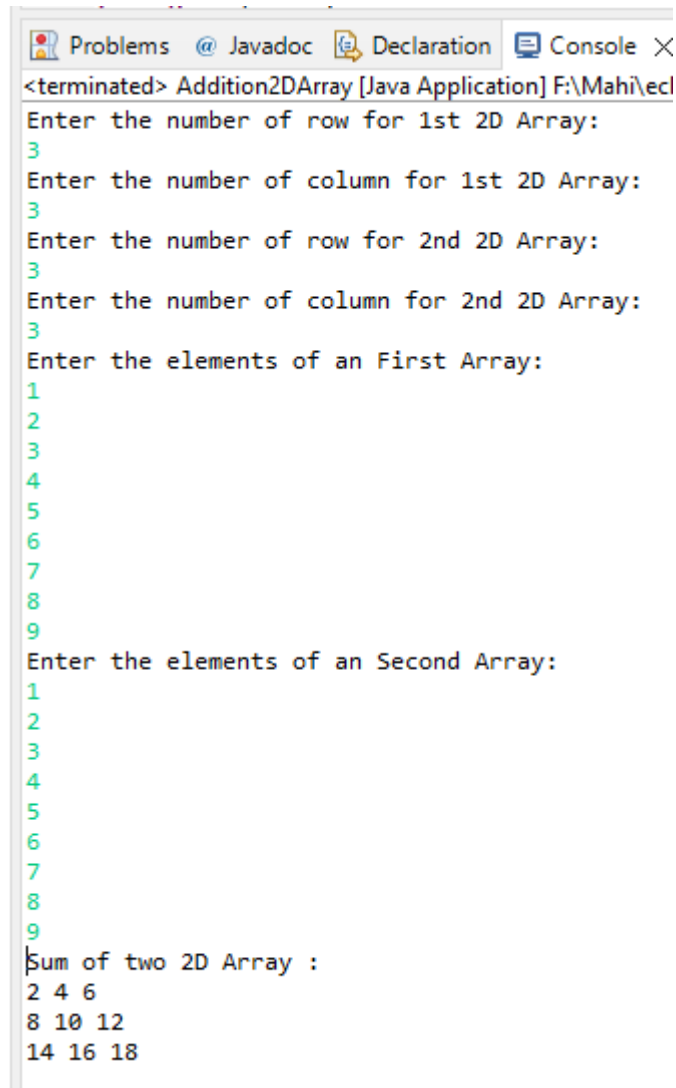
        System.***out***.println("Enter the elements of an First Array: ");

        for (**int** i = 0; i < row1; i++) {
            for (**int** j = 0; j < col1; j++) {
                arr[i][j] = in.nextInt();
            }
        }
        System.***out***.println("Enter the elements of an Second Array: ");
        for (**int** i = 0; i < row2; i++) {
            for (**int** j = 0; j < col2; j++) {
                arr2[i][j] = in.nextInt();
            }
        }
        for (**int** i = 0; i < row1; i++) {
            for (**int** j = 0; j < col1; j++) {
                arr3[i][j] = arr[i][j] + arr2[i][j];
            }
        }
        System.***out***.println("Sum of two 2D Array :");
        for (**int** i = 0; i < row1; i++) {
            for (**int** j = 0; j < col1; j++) {

```java
                        System.out.print(arr3[i][j]+" ");
                }
                System.out.println();
                in.close();
        }
    }
}
```
Output –

```
Enter the number of row for 1st 2D Array:
3
Enter the number of column for 1st 2D Array:
3
Enter the number of row for 2nd 2D Array:
3
Enter the number of column for 2nd 2D Array:
3
Enter the elements of an First Array:
1
2
3
4
5
6
7
8
9
Enter the elements of an Second Array:
1
2
3
4
5
6
7
8
9
Sum of two 2D Array :
2 4 6
8 10 12
14 16 18
```

Q7 - Write a java program to convert char array into String.

Ans - package day2and3;

import java.util.Scanner;
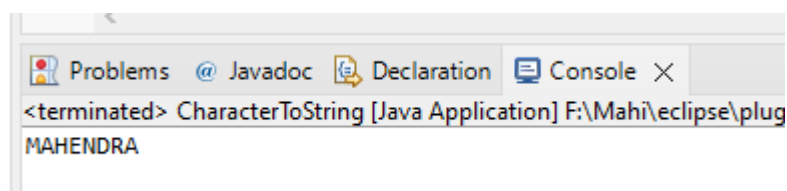
public class CharacterToString {

        public static void main(String[] args) {
                Scanner in=**new** Scanner(System.**in**);
                char ch[]= {'M','A','H','E','N','D','R','A'};
                String str = **new** String(ch);
                System.**out**.println(str);
                in.close();
        }
}

Output –

MAHENDRA

Q8 - Write a program to accept array of string. Display all elements in uppercase.

Ans - **package** day2and3;

import java.util.Scanner;

public class ArrayofString {

      public static void main(String[] args) {
            Scanner in = **new** Scanner(System.*in*);
            System.*out*.println("Enter the String element in Array");
            String[] arr = **new** String[5];
            for (**int** i = 0; i < arr.length; i++) {
                arr[i] = in.next();
            }
            for (**int** i = 0; i < arr.length; i++) {
                System.*out*.println((arr[i]));
            }
            in.close();
      }
}

Output –
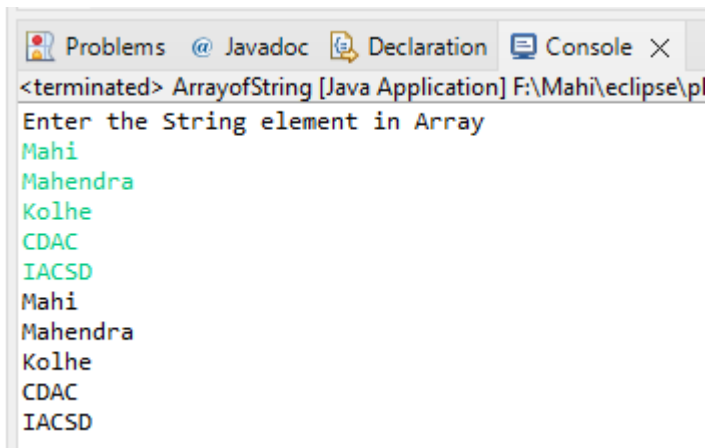
Q9 - Create Menu driven program for array operations.1:Read Array 2:Print Array 3:Search element in array 4:Reverse Array 5:Even number from array6:sum of array element

Ans - **package** day2and3;
import java.util.Scanner;
public class ArrayOperation {
      public static void main(String[] args) {
            Scanner in = **new** Scanner(System.*in*);
            System.*out*.println("Enter the number of Element you want in Array :");
            int num = in.nextInt();
            int[] arr = **new int**[num];
            System.*out*.println("Enter the Array Element : ");
            for (**int** i = 0; i < arr.length; i++) {
                arr[i] = in.nextInt();
            }
            System.*out*.println(
                    "1:Print Array 2:Seach Element 3: Reverse Array 4:Even Number from
Array 5:sum of Array Element 6:Exit");
            int operation;
            do {
                System.*out*.println("\nEnter operation want to perform on array:");
                operation = in.nextInt();

                switch (operation) {
                case 1:
                    System.*out*.println("Element of Array are:");
                    for (**int** i = 0; i < arr.length; i++) {

```java
                        System.out.print(arr[i] + " ");
                    }
                    break;
            case 2:
                    System.out.println("Enter the element want to search:");
                    int target = in.nextInt();
                    int count = 0;
                    int index = 0;
                    for (int i = 0; i < arr.length; i++) {
                        if (target == arr[i]) {
                            count++;
                            index = i;
                        }
                    }
                    if (count == 1) {
                        System.out.println("Element found at index:" + index);
                    } else {
                        System.out.println("Element not found in Array");
                    }
                    break;
            case 3:
                    System.out.println("Reverse Array:");
                    for (int i = arr.length - 1; i >= 0; i--) {
                        System.out.print(arr[i] + " ");
                    }
                    break;
            case 4:
                    System.out.println("Even Numbers in Array are:");
                    for (int i = 0; i < arr.length; i++) {
                        if (arr[i] % 2 == 0)
                            System.out.print(arr[i] + " ");
                    }
                    break;
            case 5:
                    int sum = 0;
                    for (int i = 0; i < arr.length; i++) {
                        sum = sum + arr[i];
                    }
                    System.out.println("Sum of Array Element is :" + sum);
                    break;
            case 6:
                    System.out.println("PROGRAM END");
                    break;
            default:
                    System.out.println("Invalid Entry");
            }
        } while (operation != 6);
        in.close();
    }
}
```

Output –


```
Problems  @ Javadoc  Declaration  Console  X
<terminated> ArrayOperation [Java Application] F:\Mahi\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.1.v202111...
Enter the number of Element you want in Array :
3
Enter the Array Element :
15
19
21
1:Print Array 2:Seach Element 3: Reverse Array 4:Even Number from Array 5:sum of Array Element 6:Exit

Enter operation want to perform on array:
1
Element of Array are:
15 19 21
Enter operation want to perform on array:
3
Reverse Array:
21 19 15
Enter operation want to perform on array:
6
PROGRAM END
```
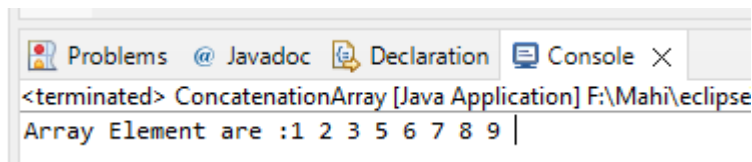
Q10 - read two int array...and store both in third array and display third array

Ans - **package** day2and3;

public class ConcatenationArray {

```
    public static void main(String[] args) {
        int[] arr1 = { 1, 2, 3 };
        int[] arr2 = { 5, 6, 7, 8, 9 };
        int[] result = new int[arr1.length + arr2.length];
        int count = 0;
        for (int i : arr1) {
            result[count] = i;
            count++;
        }
        for (int i : arr2) {
            result[count] = i;
            count++;
        }
        System.out.print("Array Element are :");
        for (int i = 0; i < result.length; i++) {
            System.out.print(result[i]+" ");
        }
    }
}
```

Output –
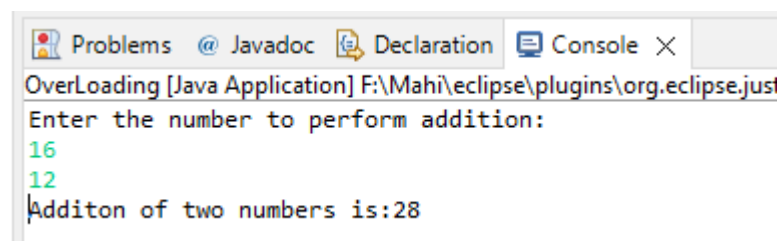
Problems @ Javadoc Declaration Console ×

<terminated> ConcatenationArray [Java Application] F:\Mahi\eclipse
Array Element are :1 2 3 5 6 7 8 9 |

Q11 - Create application for method overloading.

Ans - **package** day2and3;
import java.util.Scanner;
public class OverLoading {
```
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("Enter the number to perform addition:");
        add(in.nextInt(), in.nextInt());
        add(in.nextInt(), in.nextInt(), in.nextInt());
        add(in.nextInt(), in.nextFloat());
        add(in.nextFloat(), in.nextFloat());
        in.close();}
    public static void add(int a, int b) {
        System.out.println("Additon of two numbers is:" + (a + b));}
    public static void add(int a, int b, int c) {
        System.out.println(("Addition of three numbers is:" + (a + b + c)));}
    public static void add(int a, float b) {
        System.out.println("Addition of two number is : " + ((float) a + b));}
    public static void add(float a, float b) {
        System.out.println("Addition of two number is :" + (a + b));}}
```

Output

Problems @ Javadoc Declaration Console ×

OverLoading [Java Application] F:\Mahi\eclipse\plugins\org.eclipse.just
Enter the number to perform addition:
16
12
Additon of two numbers is:28
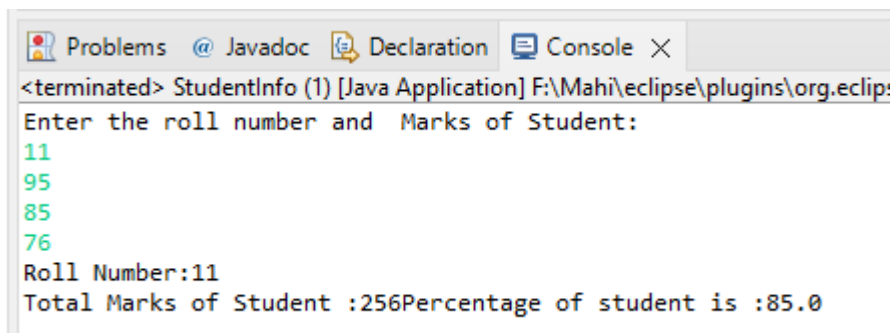
Q1 - Write a program to create student class with data members rollno, marks1,mark2,mark3. Accept data (acceptInfo()) and display using display member function. Also display total,percentage and grade.

Ans -
```java
package day4and5and6;
import java.util.Scanner;

public class StudentInfo {

    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        int total;
        float perc;
        System.out.println("Enter the roll number and  Marks of Student:");
        int rollNo = in.nextInt(), mark1 = in.nextInt(), mark2 = in.nextInt(), mark3 = in.nextInt();
        total = mark1 + mark2 + mark3;
        perc = total / 3;
        System.out.println("Roll Number:" + rollNo);
        display(total, perc);
        in.close();
    }
    public static void display(int totalM, float perC) {
        System.out.println("Total Marks of Student :" + totalM + "Percentage of student is :" + perC);
    }
}
```
Output

```
Problems  @ Javadoc  Declaration  Console ×
<terminated> StudentInfo (1) [Java Application] F:\Mahi\eclipse\plugins\org.eclips
Enter the roll number and  Marks of Student:
11
95
85
76
Roll Number:11
Total Marks of Student :256Percentage of student is :85.0
```

Q2 - Create a class Person with data members as name, age, city. Write getters and setters for all the data members. Also add the display function. Create Default and Parameterized constructors. Create the object of this class in main method and invoke all the methods in that class.

Ans -
```java
package day4and5and6;
public class Person {
        private String name;
        private int age;
        private String city;

        public Person() {
            name="Ram";
            age=21;
            city="Pune";
        }
        public Person(String name,int age , String city) {
            this.name=name;
            this.age=age;
            this.city=city;
        }
        public void display() {
            System.out.println("Name: "+name+"\nAge: "+age+"\nCity: "+city);
```

```java
        }
        public void setter(String name ,int age,String city) {
                this.name=name;
                this.age=age;
                this.city=city;
        }
        public String getName() {
                return name;
        }
        public int getAge() {
                return age;
        }
        public String getCity() {
                return city;
        }
}


package day4and5and6;
public class TestPerson {

        public static void main(String[] args) {
                Person P1 = new Person();
                P1.display();
                Person P2=new Person("mahi",25,"Pune");
                //P2.display();
                int a=P2.getAge();
                System.out.println("Age:"+a);
                P2.setter("MK", 26, "MUMBAi");
                P2.display();


        }

}
```

Output –

Problems @ Javadoc Declaration Console ✕

<terminated> TestPerson [Java Application] F:\Mahi\eclipse\plug

```
Name: Ram
Age: 21
City: Pune
Age:25
Name: MK
Age: 26
City: MUMBAi
```

Q3 - Create a class Date with data members as dd, mm, yy. Write getters and setters for all the data members. Also add the display function. Create Default and Parameterized constructors. Create the object of this class in main method and invoke all the methods in that class.

Ans –
```java
package day4and5and6;
public class Date {
        private int dd;
        private int mm;
        private int yy;

        public Date()
        {
          dd=31;
          mm=12;
          yy=96;
        }
```

```java
        public Date(int dd,int mm,int yy)
        {
                this.dd=dd;
                this.mm=mm;
                this.yy=yy;
        }

        public void display()
        {
                System.out.println("Day="+dd +" Month ="+mm+" year= 19"+yy);
        }

        public void setter(int dd,int mm,int yy)
        {
                this.dd=dd;
                this.mm=mm;
                this.yy=yy;
        }

        public int getDay()
        {
                return dd;
        }
        public int getMonth()
        {
                return mm;
        }

        public int getYear()
        {
                return yy;
        }
}


package day4and5and6;
public class TestDate {

        public static void main(String[] args) {
                Date d1= new Date();
                d1.display();
                Date d2=new Date(21,9,22);
                d2.display();
                int day=d2.getDay();
                System.out.println(day);
                int month=d2.getMonth();
                System.out.println(month);
                int year=d2.getYear();
                System.out.println(year);
                Date d3= new Date();
                d3.setter(23, 05, 96);
                d3.display();

        }

}
```

Output -

```
Problems  @ Javadoc  Declaration  Console ✕
<terminated> TestDate [Java Application] F:\Mahi\eclipse\plugins\or
Day=31 Month =12 year= 1996
Day=21 Month =9 year= 1922
21
9
22|
Day=23 Month =5 year= 1996
```

Q4 - Create a class Book with data members as bname,id,author,price. Write getters and setters for all the data members. Also add the display function. Create Default and Parameterized constructors. Create the object of this class in main method and invoke all the methods in that class.

```java
Ans - package day4and5and6;

public class Book {
        private String bname;
        private int id;
        private String author;
        private int price;

        public Book() {
                bname = "Basic Java";
                id = 1234;
                author = "PK Jadhav";
                price = 999;
        }

        public Book(String bname, int id, String author, int price) {
                this.bname = bname;
                this.id = id;
                this.author = author;
                this.price = price;
        }

        public String getBname() {
                return this.bname;
        }

        public int getId() {
                return this.id;
        }

        public String getAuthor() {
                return this.author;
        }

        public int getPrice() {
                return this.price;
        }

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

        public void setAuthor(String author) {
                this.author = author;
        }

        public void setId(int id) {
                this.id = id;
        }

        public void setPrice(int price) {
                this.price = price;
        }

        public void display() {
                System.out.println(
                                "Book-Name: " + bname + "\nAuthor Name: " + author + "\nBook-Id: " +
id + "\nPrice: " + price + "\n");
        }
}
```

```java
package day4and5and6;

public class TestBook {

        public static void main(String[] args) {
                Book b2 = new Book("Lets c", 150, "Kanetkar", 1999);

                b2.setAuthor("Ram");
                b2.getAuthor();
                b2.display();
        }

}
```

Output

Problems @ Javadoc Declaration Console ✕

<terminated> TestBook [Java Application] F:\Mahi\eclipse\plugins\org

Book-Name: Lets c
Author Name: Ram
Book-Id: 150
Price: 1999
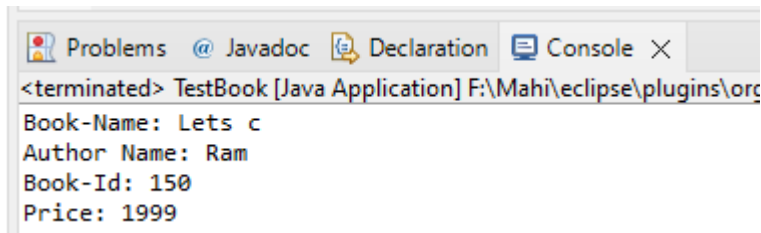
Q5 - Create a class Point with data members as x,y. Create Default and Parameterized constructors. Write getters and setters for all the data members. Also add the display function. Create the object of this class in main method and invoke all the methods in that class.

```java
Ans – package day4and5and6;
public class Point {
        private int x;
        private int y;

        public Point() {
                x = 0;
                y = 0;
                System.out.println("-----default contr-----");
        }

        public Point(int x, int y) {
                this.x = x;
                this.y = y;
                System.out.println("-------Paramterised contr--------");
        }

        public int getPointX() {
                return this.x;
        }

        public int getPointY() {
                return this.y;
        }

        public void setPointX(int x) {
                this.x = x;
        }

        public void setPointY(int y) {
                this.y = y;
        }

        public void display() {
                System.out.println("Point X=" + x + "\nPoint Y=" + y);
        }
}
```
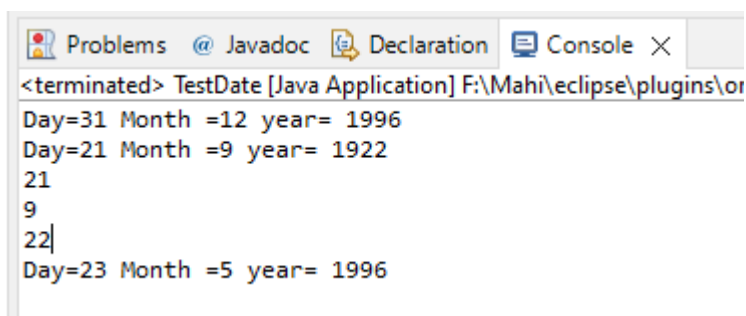
```java
package day4and5and6;

public class TestPoint {

        public static void main(String[] args) {
                Point P1 = new Point();
                P1.display();

                Point P2 = new Point(15, 15);
                P2.display();
                System.out.println("----------------------------");

                P1.setPointX(12);
                P1.display();
                System.out.println("----------------------------");

                P2.setPointY(16);
                P2.display();
                System.out.println("----------------------------");

        }
}
```

Output

Q6 - Create a class ComplexNumber with data members real, imaginary. Create Default and Parameterized constructors. Write getters and setters for all the data members. Also add the display function. Create the object of this class in main method and invoke all the methods in that class.

Ans -
```java
package day4and5and6;

public class ComplexNumber {
        private float real;
        private float imaginary;

        public ComplexNumber() {
                real = 3.14f;
                imaginary = -1.41f;
                System.out.println("This is Default contr");
        }

        public ComplexNumber(float real, float imaginary) {
                this.real = real;
                this.imaginary = imaginary;
                System.out.println("This is Parameterised contr");
        }

        public void setReal(float real) {
                this.real = real;
        }
```

```java
        public void setImaginary(float imaginary) {
                this.imaginary = imaginary;
        }

        public float getReal() {
                return real;
        }

        public float getImaginary() {
                return imaginary;
        }

        public void display() {
                System.out.println("Real Number is:" + real + "\nImaginary Number is" +
imaginary);
        }
}
package day4and5and6;

public class TestComplexNumber {

        public static void main(String[] args) {
                ComplexNumber CN1 = new ComplexNumber();
                CN1.display();
                System.out.println("-------------------------------------");

                ComplexNumber CN2 = new ComplexNumber(15.45f, -6.532f);
                CN2.display();
                System.out.println("-------------------------------------");

                CN1.setReal(5.5f);
                CN1.display();
                System.out.println("-------------------------------------");

                CN2.setImaginary(-9.655f);
                CN2.display();
                System.out.println("-------------------------------------");
        }
}
```
Output –

Q7 - create BankAccount aaplication for operations like withdraw ,deposite and ShowBalance Create menu drive program for bank operations.

Ans –
```java
package day4and5and6;
public class BankAccountBL {
```

```java
        public int accountnumber;
        private String name;
        private int balance;

        BankAccountBL() {
                accountnumber = 1111;
                name = "SBIAccount";
                balance = 5000;
        }

        BankAccountBL(int accountnumber, String name, int balance) {
                this.accountnumber = accountnumber;
                this.name = name;
                this.balance = balance;
        }

        public void displayBal() {
                System.out.println("Current Balance of Account is:" + balance);
        }

        public void displayDetails() {
                System.out.println("Name:" + name + "\nAccount Number:" + accountnumber +
"\nBalance" + balance);
        }

        public void deposit(int depo) {
                balance = balance + depo;
        }

        public void withdraw(int wd) {
                balance = balance - wd;
        }
}

package day4and5and6;

import java.util.Scanner;

public class BankAccountTest {

        public static void main(String[] args) {
                Scanner in = new Scanner(System.in);
                BankAccountBL A1 = new BankAccountBL();
                int choice;
                System.out.println("---Menu--- \n1:Deposit 2:Withdraw 3:Display Balance 4:Display
All Details 5:Exit");
                do {
                        System.out.println("Enter the choice");
                        choice = in.nextInt();
                        switch (choice) {
                        case 1:
                                System.out.println("Enter the Amount want to deposit:");
                                A1.deposit(in.nextInt());
                                break;
                        case 2:
                                System.out.println("Enter the Amount want to withdraw:");
                                A1.withdraw(in.nextInt());
                        case 3:
                                A1.displayBal();
                                break;
                        case 4:
                                A1.displayDetails();
                                break;
                        case 5:
                                System.out.println("** Thank You for banking with us **");
```

```java
                break;
            default:
                System.out.println("Invalid Entry");
            }
        } while (choice != 5);
        in.close();
    }
}
```

Output –

```
---Menu---
1:Deposit 2:Withdraw 3:Display Balance 4:Display All Details 5:Exit
Enter the choice
1
Enter the Amount want to deposit:
5000
Enter the choice
2
Enter the Amount want to withdraw:
2000
Current Balance of Account is:8000
Enter the choice
4
Name:SBIAccount
Account Number:1111
Balance8000
Enter the choice
5
** Thank You for banking with us **
```

Q8 - Create array of BankAccount class and store 5 objects....create menu driven application for same.....ex. show all account names ,balance,email.

Ans - `package` day4and5and6;

```java
public class BankAccountBLArray {
    private int accountnumber;
    private String name;
    private int balance;
    private static int counter;
    private static String bankname;
    private String email;
    private String city;

    BankAccountBLArray() {

    }

    BankAccountBLArray(String name, int balance, String city, String email) {
        this.accountnumber = counter;
        this.name = name;
        this.balance = balance;
        this.city = city;
        this.email = email;
        counter++;
    }

    static {
        counter = 1001;
        bankname = "SBI BANK";
```

```java
        }

        public void displayBal() {
                System.out.println("Current Balance of Account is:" + balance);
        }

        public void displayDetails() {
                System.out.print("\nBank Name : " + bankname + "\nName : " + name + "\nAccount
Number : " + accountnumber
                                + "\nBalance : " + balance + "\nCity :" + city + "\nEmail :" +
email);
        }

        public void deposit(int depo) {
                balance = balance + depo;
        }

        public void withdraw(int wd) {
                balance = balance - wd;
        }

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

        public void setCity(String city) {
                this.city = city;
        }

        public void setEmail(String email) {
                this.email = email;
        }

        public int getAcc() {
                return this.accountnumber;
        }

        public String getName() {
                return this.name;
        }
}


package day4and5and6;

import java.util.Scanner;

public class BankAccountTestArray {

        public static void main(String[] args) {
                Scanner in = new Scanner(System.in);
                System.out.println("How Many Account You want to create:");
                int totalA = in.nextInt();
                BankAccountBLArray[] B = new BankAccountBLArray[totalA];
                System.out.println("Enter the Details =  Name , Balance , Email , City");

                for (int i = 0; i < B.length; i++) {
                        B[i] = new BankAccountBLArray(in.next(), in.nextInt(), in.next(),
in.next());
                }

                System.out.println("First Account Number is:" + B[0].getAcc());
                int choice;
                do {
                        System.out.println("\nEnter the choice for Main Menu :");
```

```java
System.out.println("**** Menu ****");
System.out.println(
        "1:Deposit 2:WithDraw 3:Display Balance 4:Display All Details
5:Money Transfer 6:Update Detail 7:Exit");
choice = in.nextInt();
switch (choice) {
case 1:
        System.out.println("Enter the Account number to deposit");
        int acc = in.nextInt();
        int count = 0;
        int index = 0;
        for (int i = 0; i < B.length; i++) {
                int adf = B[i].getAcc();
                if (acc == adf) {
                        count++;
                        index = i;
                }
        }
        if (count == 1) {
                System.out.println("Enter the Amount");
                B[index].deposit(in.nextInt());
                B[index].displayBal();
        } else {
                System.out.println("Account not found ");
        }
        break;
case 2:
        System.out.println("Enter the Account number to withdraw");
        acc = in.nextInt();
        count = 0;
        index = 0;
        for (int i = 0; i < B.length; i++) {
                if (acc == B[i].getAcc()) {
                        count++;
                        index = i;
                }
        }
        if (count == 1) {
                System.out.println("Enter the Amount");
                B[index].withdraw(in.nextInt());
                B[index].displayBal();
        } else {
                System.out.println("Account not found ");
        }
        break;
case 3:
        System.out.println("Enter the Account to display Balance");
        acc = in.nextInt();
        count = 0;
        index = 0;
        for (int i = 0; i < B.length; i++) {
                if (acc == B[i].getAcc()) {
                        count++;
                        index = i;
                }
        }
        if (count == 1) {
                B[index].displayBal();
                ;
        } else {
                System.out.println("Account not found ");
        }
        break;
case 4:
        System.out.println("Enter the Account to display All details");
```

```java
                    acc = in.nextInt();
                    count = 0;
                    index = 0;
                    for (int i = 0; i < B.length; i++) {
                            if (acc == B[i].getAcc()) {
                                    count++;
                                    index = i;
                            }
                    }
                    if (count == 1) {
                            B[index].displayDetails();
                            ;
                    } else {
                            System.out.println("Account not found ");
                    }
                    break;
            case 5:
                    System.out.println("Enter the Account numbber from you want to send
Money:");

                    int sender = in.nextInt();
                    count = 0;
                    int senderindex = 0;
                    int receiverindex = 0;
                    for (int i = 0; i < B.length; i++) {
                            if (sender == B[i].getAcc()) {
                                    count++;
                                    senderindex = i;
                            }
                    }
                    if (count == 1) {
                            System.out.println("Enter the account number to send money");
                            int receiver = in.nextInt();
                            for (int i = 0; i < B.length; i++) {
                                    if (receiver == B[i].getAcc()) {
                                            count++;
                                            receiverindex = i;
                                    }
                            }
                            if (count == 2) {
                                    System.out.println("Enter Money you want to tranfer:");
                                    int money = in.nextInt();
                                    B[senderindex].withdraw(money);
                                    B[receiverindex].deposit(money);
                            } else {
                                    System.out.println("Receiver account not found");
                            }
                    } else {
                            System.out.println("Sender Account Not found");
                    }
                    break;
            case 6:
                    System.out.println("Enter the Account Number to Update Details:");
                    int accNoUP = in.nextInt();
                    count = 0;
                    index = 0;
                    for (int i = 0; i < B.length; i++) {
                            if (accNoUP == B[i].getAcc()) {
                                    count++;
                                    index = i;
                            }
                    }
                    if (count == 1) {
                            System.out.println("Enter the Choice for updating Info. 1:Name
2:Email 3:city ");

                            int ch = in.nextInt();
```

```java
                    switch (ch) {
                    case 1:
                            System.out.println("Enter New Name:");
                            B[index].setName(in.next());
                            break;
                    case 2:
                            System.out.println("Enter New Email :");
                            B[index].setEmail(in.next());
                            break;
                    case 3:
                            System.out.println("Enter New City :");
                            B[index].setCity(in.next());
                            break;
                    default:
                            System.out.println("Invalid Entry");
                    }

                } else {
                        System.out.println("Account not found ");
                }
                break;
        case 7:
                System.out.println("Thank You for banking with Us");
                break;
        default:
                System.out.println("Invalid Entry");
            }
        } while (choice != 7);
        in.close();
    }
}
```

Output

BankAccountTestArray [Java Application] F:\Mahi\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.1.v20211116-1657\jre\bin\jav

```
How Many Account You want to create:
3
Enter the Details =  Name , Balance , Email , City
Mahendra
25000
mkolhe@gmail
Pune
Mahi
35000
mahi@gmail
Mumbai
Rahul
45000
Rahul@gmail
Nagar
First Account Number is:1001

Enter the choice for Main Menu :
**** Menu ****
1:Deposit 2:WithDraw 3:Display Balance 4:Display All Details 5:Money Transfer 6:Update Detail 7:Exit
1
Enter the Account number to deposit
1001
Enter the Amount
12000
Current Balance of Account is:37000

Enter the choice for Main Menu :
**** Menu ****
1:Deposit 2:WithDraw 3:Display Balance 4:Display All Details 5:Money Transfer 6:Update Detail 7:Exit
4
Enter the Account to display All details
1002

Bank Name : SBI BANK
Name : Mahi
Account Number : 1002
Balance : 35000
City :mahi@gmail
Email :Mumbai
Enter the choice for Main Menu :
**** Menu ****
1:Deposit 2:WithDraw 3:Display Balance 4:Display All Details 5:Money Transfer 6:Update Detail 7:Exit
```

COP Assignment 4

Q1 - Create Date class with members day, month, year. Write no argument and parameterised constructor. Create two object s and initialize them using no argument and parameterised constructor respectively. Print date using display function.

Ans - **package** day7;

```java
public class Date {
    private int dd;
    private int mm;
    private int yy;

    public Date() {

    }

    public Date(int dd, int mm, int yy) {
        this.dd = dd;
        this.mm = mm;
        this.yy = yy;
    }

    public void display() {
        System.out.println("Date:" + dd + "-" + mm + "-" + yy);
    }

    public void acceptInfo(int d, int m, int y) {
        this.dd = d;
        this.mm = m;
        this.yy = y;
    }
}
```
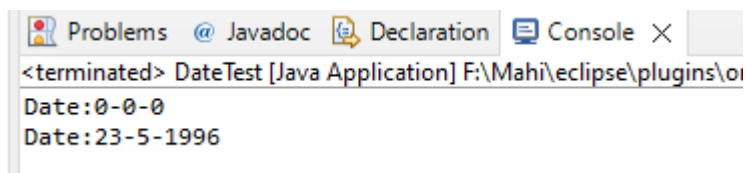
```java
package day7;
public class DateTest {
    public static void main(String[] args) {
        Date D1 = new Date();
        D1.display();

        Date D2 = new Date(23, 05, 1996);
        D2.display();

    }

}
```
Output –


```
Problems  @ Javadoc  Declaration  Console ✕
<terminated> DateTest [Java Application] F:\Mahi\eclipse\plugins\o
Date:0-0-0
Date:23-5-1996
```

Q2 - Create Employee class with members id(int),name(string),dob(Date).Use above created Date class. Write default and parameterised constructor in Employee Class.Write accept() function to accept information and display() to display emp information.

Ans - **package** day7;

```java
import java.util.Scanner;
public class Employee {
    private int id;
    private String name;
```

```java
        Date d = new Date();
        Scanner sc = new Scanner(System.in);

        public Employee() {

        }

        public Employee(int id, String name, int dd, int mm, int yy) {
                this.id = id;
                this.name = name;
        }
        public void acceptInfo(int id, String name) {
                System.out.println("Enter Date of Birth of Emp");
                int dd = sc.nextInt();
                int mm = sc.nextInt();
                int yy = sc.nextInt();
                d.acceptInfo(dd, mm, yy);
                this.name = name;
                this.id = id;
        }
        public void display() {
                System.out.println("ID : " + id + "\nName : " + name);
                d.display();
        }
}
package day7;
import java.util.Scanner;
public class EmployeeTest {
        public static void main(String[] args) {
                Scanner in = new Scanner(System.in);
                // Employee E1 = new Employee();// Default
                Employee E2 = new Employee();// Parameterised
                System.out.println("Enter ID And name ");
                int id = in.nextInt();
                String name = in.next();
                E2.acceptInfo(id, name);
                E2.display();
                in.close();
        }
}
```

Output –

```
Problems  @ Javadoc  Declaration  Console ✕
<terminated> EmployeeTest [Java Application] F:\Mahi\eclipse\plu
Enter ID And name
101
Mahi
Enter Date of Birth of Emp
23
05
96
ID : 101
Name : Mahi
Date:23-5-96
```

Q3 - Consider that payroll software needs to be developed for computerization of
operations of an ABC organization. The organization has employees.
3.1. Construct a class Employee with following members using private access specifies:
3.2. Write methods to display the details of an employee and calculate the gross
Ans - package day7;
```java
public class Payroll {
        private int empId;
        private String empName;
        private double baseSal;
        private double hra;
```

```java
        private int Medical;
        private double pf;
        private double pt = 200;
        private double grosSal;
        private double netSal;
        public Payroll() {
        }
        public Payroll(String empName, int empId, double baseSal) {
                this.empId = empId;
                this.empName = empName;
                this.baseSal = baseSal;
        }
        public void display() {
                hra = 0.5 * baseSal;
                Medical = 1000;
                pf = 0.12 * baseSal;
                pt = 200;
                grosSal = (baseSal + hra + Medical);
                netSal = (grosSal - (pt + pf));
                System.out.println(
                                "Name: " + empName + "\nId: " + empId + "\nGross Salary: " + grosSal
 + "\nNet salary: " + netSal);
        }

}

package day7;
import java.util.Scanner;
public class PayrollTester {

        public static void main(String[] args) {
                Scanner in = new Scanner(System.in);
                System.out.println("Enter the Following Details of employee");
                System.out.println("Name , Employee ID , Basic Salary");
                String name = in.next();
                int id = in.nextInt();
                double salary = in.nextDouble();
                Payroll E1 = new Payroll(name, id, salary);
                E1.display();
                in.close();
        }
}
```
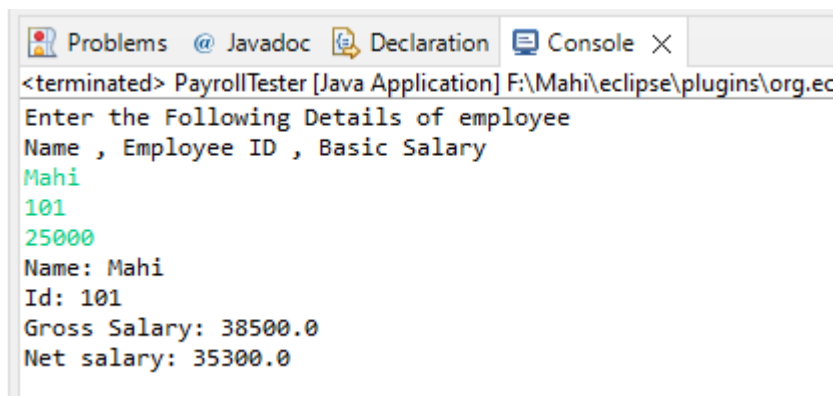
Output -

Problems @ Javadoc Declaration Console ✕

<terminated> PayrollTester [Java Application] F:\Mahi\eclipse\plugins\org.ec

```
Enter the Following Details of employee
Name , Employee ID , Basic Salary
Mahi
101
25000
Name: Mahi
Id: 101
Gross Salary: 38500.0
Net salary: 35300.0
```