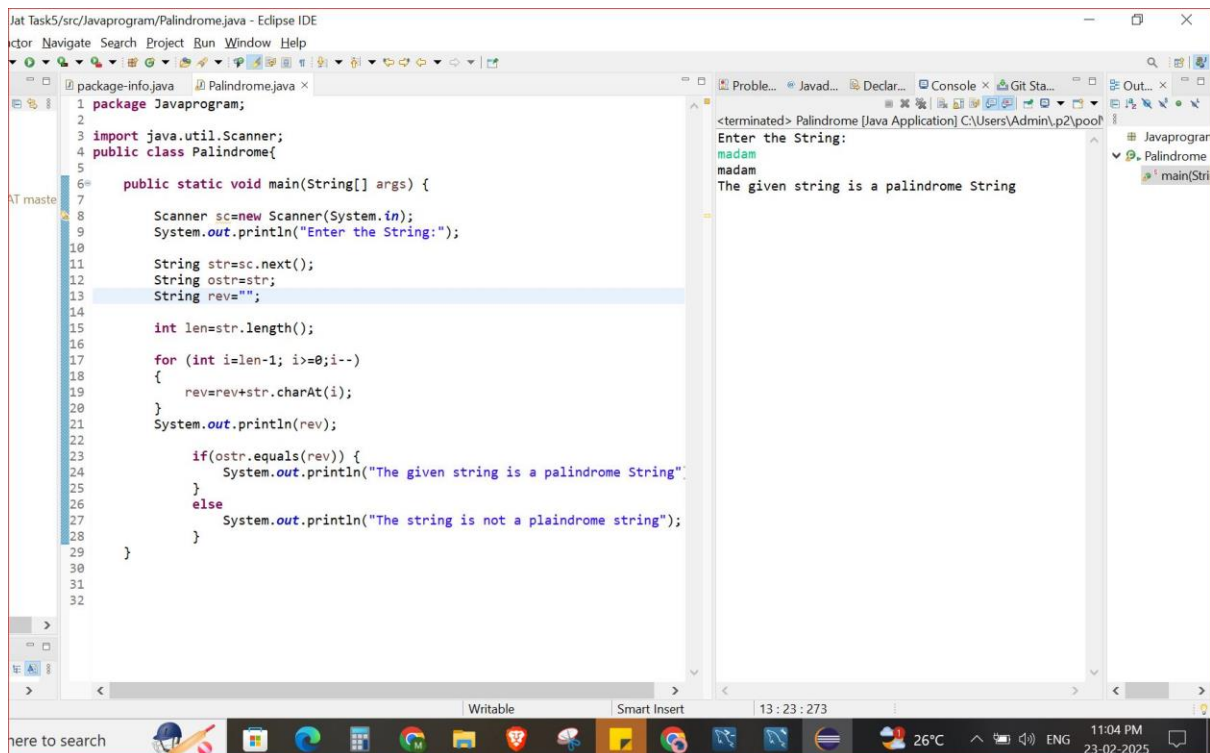


## Program 1:



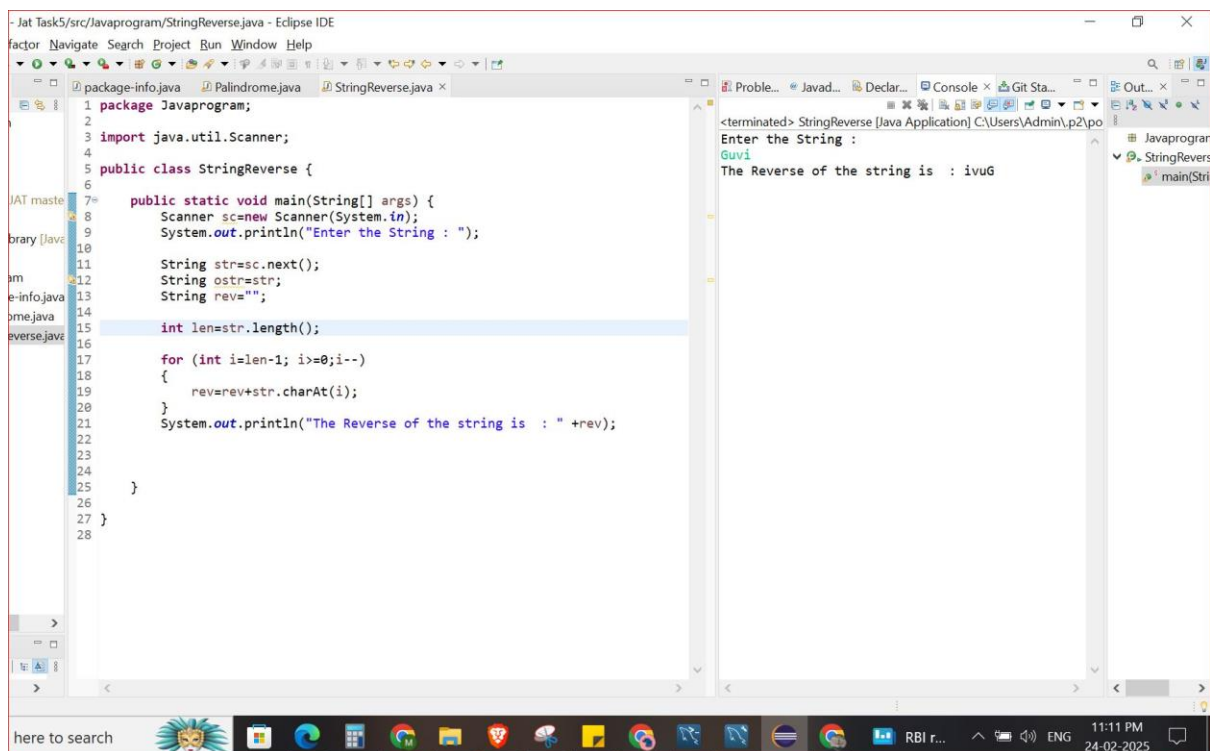
The screenshot shows the Eclipse IDE with a Java project named 'Jat Task5/src/Javaprogram'. The main editor displays the file 'Palindrome.java'. The code defines a class 'Palindrome' with a 'main' method that uses a 'Scanner' to read a string and checks if it is a palindrome by comparing it with its reverse. The console on the right shows the execution output: 'Enter the String: madam' and 'The given string is a palindrome String'.

```
1 package Javaprogram;
2
3 import java.util.Scanner;
4 public class Palindrome{
5
6     public static void main(String[] args) {
7
8         Scanner sc=new Scanner(System.in);
9         System.out.println("Enter the String:");
10
11         String str=sc.next();
12         String ostr=str;
13         String rev="";
14
15         int len=str.length();
16
17         for (int i=len-1; i>=0;i--)
18         {
19             rev=rev+str.charAt(i);
20         }
21         System.out.println(rev);
22
23         if(ostr.equals(rev)) {
24             System.out.println("The given string is a palindrome String");
25         }
26         else
27             System.out.println("The string is not a plaindrome string");
28     }
29
30 }
31
32
```

Console Output:

```
<terminated> Palindrome [Java Application] C:\Users\Admin\p2\pool
Enter the String:
madam
madam
The given string is a palindrome String
```

## Program 2:



The screenshot shows the Eclipse IDE with a Java project named 'Jat Task5/src/Javaprogram'. The main editor displays the file 'StringReverse.java'. The code defines a class 'StringReverse' with a 'main' method that uses a 'Scanner' to read a string and prints its reverse. The console on the right shows the execution output: 'Enter the String : Guvi' and 'The Reverse of the string is : ivuG'.

```
1 package Javaprogram;
2
3 import java.util.Scanner;
4 public class StringReverse {
5
6     public static void main(String[] args) {
7
8         Scanner sc=new Scanner(System.in);
9         System.out.println("Enter the String : ");
10
11         String str=sc.next();
12         String ostr=str;
13         String rev="";
14
15         int len=str.length();
16
17         for (int i=len-1; i>=0;i--)
18         {
19             rev=rev+str.charAt(i);
20         }
21         System.out.println("The Reverse of the string is : " +rev);
22
23     }
24
25 }
26
27 }
28
```

Console Output:

```
<terminated> StringReverse [Java Application] C:\Users\Admin\p2\pool
Enter the String :
Guvi
The Reverse of the string is : ivuG
```

### Program 3:

The screenshot shows the Eclipse IDE with a Java project named 'Jat Task5/src/Javaprogram'. The file 'Pattern.java' is open, containing the following code:

```

package-info.java Palindrome.java StringReverse.java Pattern.java Xpattern.java
1 package Javaprogram;
2
3 import java.util.Scanner;
4
5 public class Pattern {
6
7     public static void printPattern(int n)
8     {
9
10         int num = 1;
11
12         for (int i=1; i <=n; i++)
13         {
14             for (int j=1; j<=i; j++)
15             {
16                 System.out.print(num + " ");
17                 num++;
18             }
19             System.out.println();
20         }
21     }
22
23     public static void main(String args[])
24     {
25         Scanner sc=new Scanner(System.in);
26         System.out.println("Enter the value of n : ");
27         int n = sc.nextInt();
28
29         printPattern(n);
30     }
31 }
32
33
34
35
36
37

```

The output window shows the execution of the program. It prompts 'Enter the value of n : ' and the user has entered '4'. The program then prints a pattern of numbers:

```

1
2 3
4 5 6
7 8 9 10

```

The taskbar at the bottom shows the system clock as 12:06 AM on 25-02-2025, and the temperature as 25°C.

### Program 4:

The screenshot shows the Eclipse IDE with the following components:

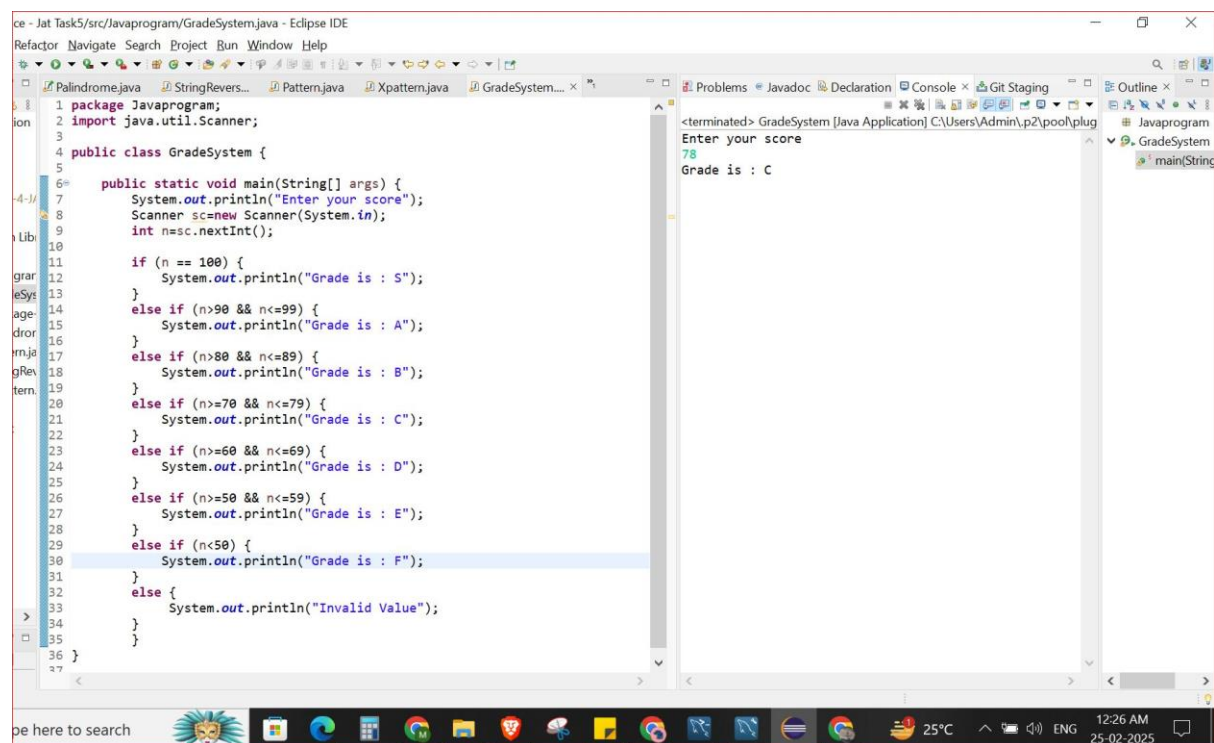
- Top Bar:** Displays the current project path: `e - Jai Task5/src/Javaprogram/Xpattern.java - Eclipse IDE`. Below it are tabs for `package-info.java`, `Palindrome.java`, `StringReverse.java`, `Pattern.java`, and `Xpattern.java`.
- Editor:** Contains the source code for `Xpattern.java`. The code is as follows:
 

```
1 package Javaprogram;
2
3 import java.util.Scanner;
4
5 public class Xpattern {
6
7     public static void main(String[] args) {
8         Scanner sc=new Scanner(System.in);
9         System.out.println("Enter a number : ");
10        int n=sc.nextInt();
11
12        for(int i=1;i<=n;i++)
13        {
14            for(int j=1;j<=n;j++)
15            {
16                if(i==j || i+j==(n+1))
17                    System.out.print("*");
18                else
19                    System.out.print(" ");
20            }
21            System.out.println();
22        }
23    }
24 }
25
26 }
```
- Console:** Shows the output of the program. It starts with `<terminated> Xpattern [Java Application]`, followed by the prompt `Enter a number :` and the user input `5`. Below this, the diamond pattern of asterisks is displayed:
 

```

      *
     *
    *
   *
  *
 *
*
```
- Bottom Bar:** Shows the Windows taskbar with various application icons and the system clock displaying `12:05 AM 25-02-2025`.

## Program 5:

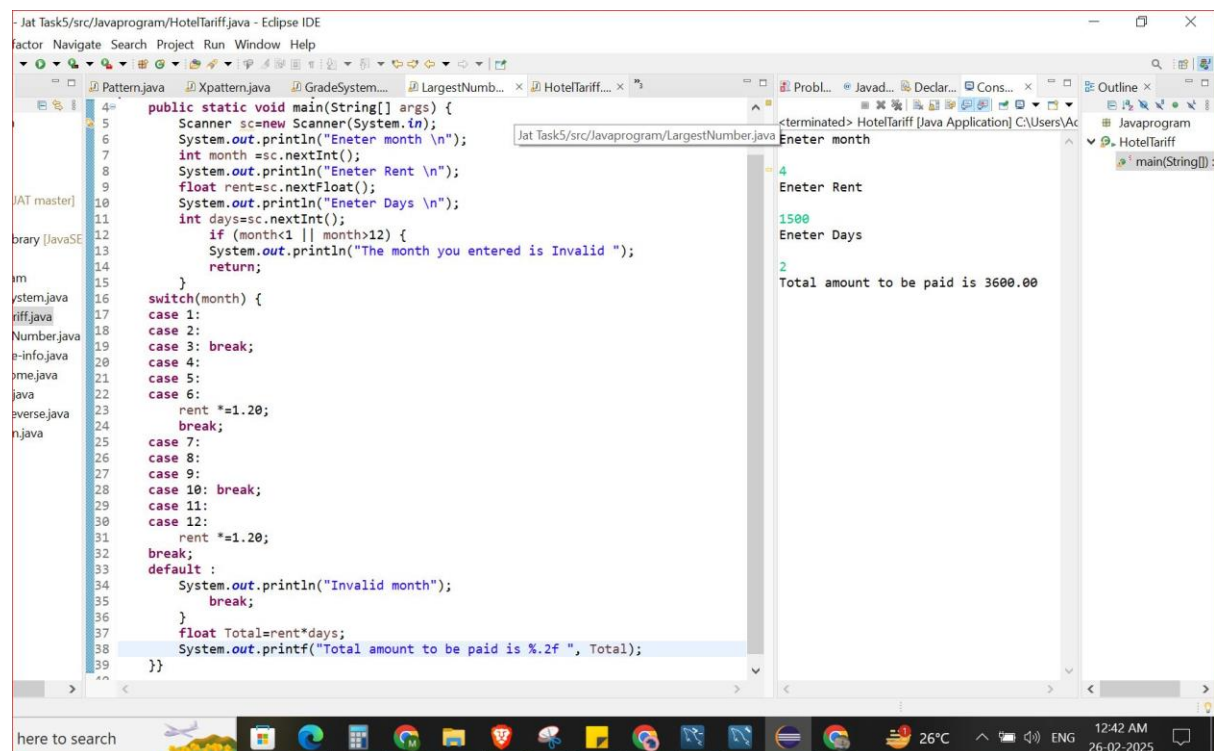


```
1 package Javaprogram;
2 import java.util.Scanner;
3
4 public class GradeSystem {
5
6     public static void main(String[] args) {
7         System.out.println("Enter your score");
8         Scanner sc=new Scanner(System.in);
9         int n=sc.nextInt();
10
11         if (n == 100) {
12             System.out.println("Grade is : S");
13         }
14         else if (n>90 && n<=99) {
15             System.out.println("Grade is : A");
16         }
17         else if (n>80 && n<=89) {
18             System.out.println("Grade is : B");
19         }
20         else if (n>=70 && n<=79) {
21             System.out.println("Grade is : C");
22         }
23         else if (n>=60 && n<=69) {
24             System.out.println("Grade is : D");
25         }
26         else if (n>=50 && n<=59) {
27             System.out.println("Grade is : E");
28         }
29         else if (n<50) {
30             System.out.println("Grade is : F");
31         }
32         else {
33             System.out.println("Invalid Value");
34         }
35     }
36 }
```

Console Output:

```
<terminated> GradeSystem [Java Application] C:\Users\Admin\p2\pool\plug
Enter your score
78
Grade is : C
```

## Program 6:

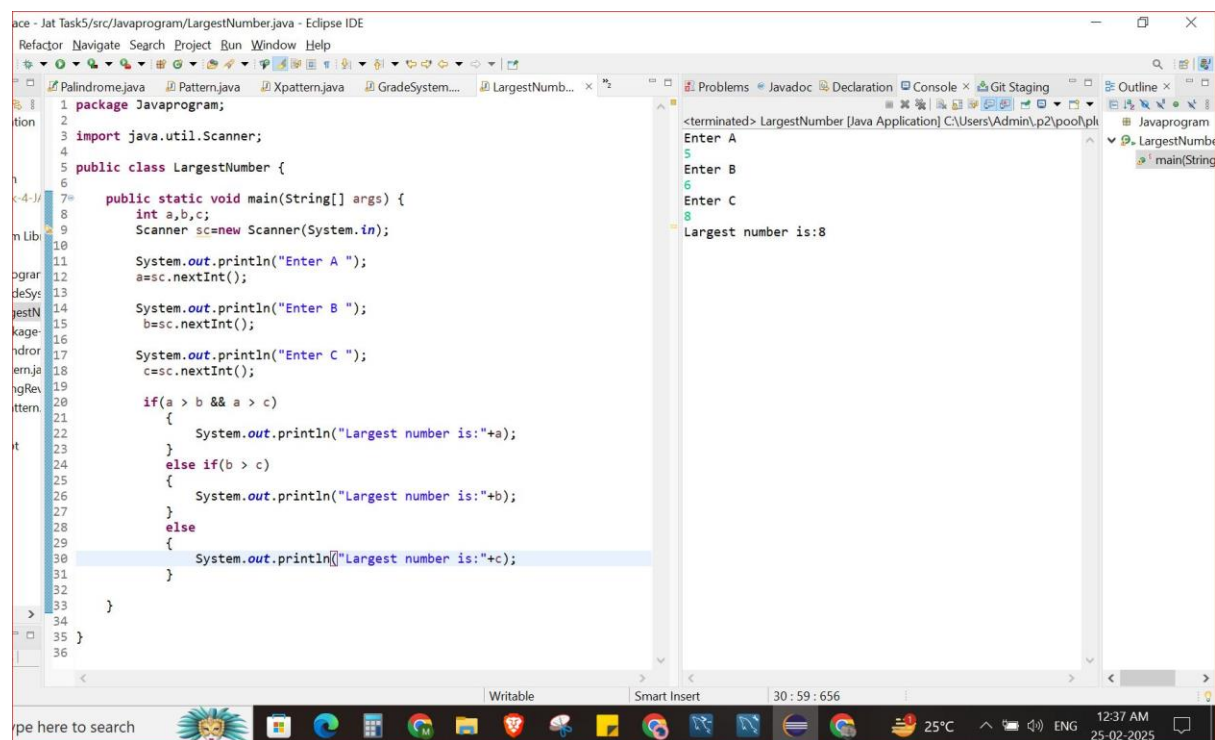


```
4 public static void main(String[] args) {
5     Scanner sc=new Scanner(System.in);
6     System.out.println("Enter month \n");
7     int month =sc.nextInt();
8     System.out.println("Enter Rent \n");
9     float rent=sc.nextFloat();
10    System.out.println("Enter Days \n");
11    int days=sc.nextInt();
12    if (month<1 || month>12) {
13        System.out.println("The month you entered is Invalid ");
14        return;
15    }
16    switch(month) {
17        case 1:
18        case 2:
19        case 3: break;
20        case 4:
21        case 5:
22        case 6:
23            rent *=1.20;
24            break;
25        case 7:
26        case 8:
27        case 9:
28        case 10: break;
29        case 11:
30        case 12:
31            rent *=1.20;
32            break;
33        default :
34            System.out.println("Invalid month");
35            break;
36    }
37    float Total=rent*days;
38    System.out.printf("Total amount to be paid is %.2f ", Total);
39 }
```

Console Output:

```
<terminated> HotelTariff [Java Application] C:\Users\Ac
Enter month
4
Enter Rent
1500
Enter Days
2
Total amount to be paid is 3600.00
```

## Program 7:



The screenshot shows the Eclipse IDE with a Java project named 'Jat Task5/src/Javaprogram'. The file 'LargestNumber.java' is open in the editor. The code defines a class 'LargestNumber' with a 'main' method that prompts the user to enter three integers (A, B, and C) and then prints the largest one. The console output shows the program running successfully with inputs 5, 6, and 8, resulting in the output 'Largest number is:8'.

```
1 package Javaprogram;
2
3 import java.util.Scanner;
4
5 public class LargestNumber {
6
7     public static void main(String[] args) {
8         int a,b,c;
9         Scanner sc=new Scanner(System.in);
10
11         System.out.println("Enter A ");
12         a=sc.nextInt();
13
14         System.out.println("Enter B ");
15         b=sc.nextInt();
16
17         System.out.println("Enter C ");
18         c=sc.nextInt();
19
20         if(a > b && a > c)
21         {
22             System.out.println("Largest number is:"+a);
23         }
24         else if(b > c)
25         {
26             System.out.println("Largest number is:"+b);
27         }
28         else
29         {
30             System.out.println("Largest number is:"+c);
31         }
32     }
33 }
34
35
36
```

Console Output:

```
<terminated> LargestNumber [Java Application] C:\Users\Admin\p2\pool\pl...
Enter A
5
Enter B
6
Enter C
8
Largest number is:8
```