

OBJECT ORIENTED PROGRAMMING LAB

PROGRAM NO 1:

SOURCE CODE:

```
import java.util.Scanner;

public class p1 {
    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.print("Enter a Character : ");
        String word = sc.nextLine();

        if(word.length() > 1)
        {
            System.out.println("\nInvalid Input\n");
            return;
        }
        char letter = word.charAt(0);
        if(letter >= 'a' && letter <= 'z' || letter >= 'A' && letter <= 'Z')
        {
            if(letter == 'a' || letter == 'e' || letter == 'i' || letter == 'o' |
| letter == 'u' || letter == 'A' ||
letter == 'E' || letter == 'I' || letter == 'O' || letter == 'U')
            {
                System.out.println("\nInput Number is Vowel\n");
            }
            else if(!(letter == 'a' || letter == 'e' || letter == 'i' || letter =
= 'o' || letter == 'u' || letter == 'A' || letter == 'E' || letter == 'I' || lett
er == 'O' || letter == 'U'))
            {
                System.out.println("\nInput is Consonant\n");
            }
        }
        else {
```

```

        System.out.println("\nInvalid Input\n");
    }
}
}

```

OUTPUT:

The screenshot shows the Visual Studio Code interface with a Java project named 'p1.java - cs201200_lab02'. The Explorer panel on the left shows the project structure with files like p1.class, p1.java, p2.class, p2.java, p3.class, p3.java, task.class, and task.java. The main editor displays the source code of p1.java, which includes a Scanner object and a conditional statement to check if the input is a vowel or consonant. The Terminal panel at the bottom shows the execution of the program in a Windows PowerShell window. The output shows the program prompting for a character and displaying 'Input Number is Vowel' for 'a', 'Input is Consonant' for 'd', and 'Invalid Input' for 'hb'.

```

p1.java - cs201200_lab02 - Visual Studio Code
EXPLORER
> OPEN EDITORS
CS201200_LAB02
p1.class
p1.java
p2.class
p2.java
p3.class
p3.java
task.class
task.java
PROBLEMS (19) OUTPUT DEBUG CONSOLE TERMINAL
4: powershell
Windows PowerShell
Copyright (C) 2015 Microsoft Corporation. All rights reserved.

PS F:\Uni\second semester\Object Oriented Programming\lab\Assignments\cs201200_lab02> java p1.java
Enter a Character : a

Input Number is Vowel

PS F:\Uni\second semester\Object Oriented Programming\lab\Assignments\cs201200_lab02> java p1.java
Enter a Character : d

Input is Consonant

PS F:\Uni\second semester\Object Oriented Programming\lab\Assignments\cs201200_lab02> java p1.java
Enter a Character : hb

Invalid Input

PS F:\Uni\second semester\Object Oriented Programming\lab\Assignments\cs201200_lab02> java p1.java

```

PROGRAM NO 2:-

SOURCE CODE:

```
import java.util.Scanner;

public class p2 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

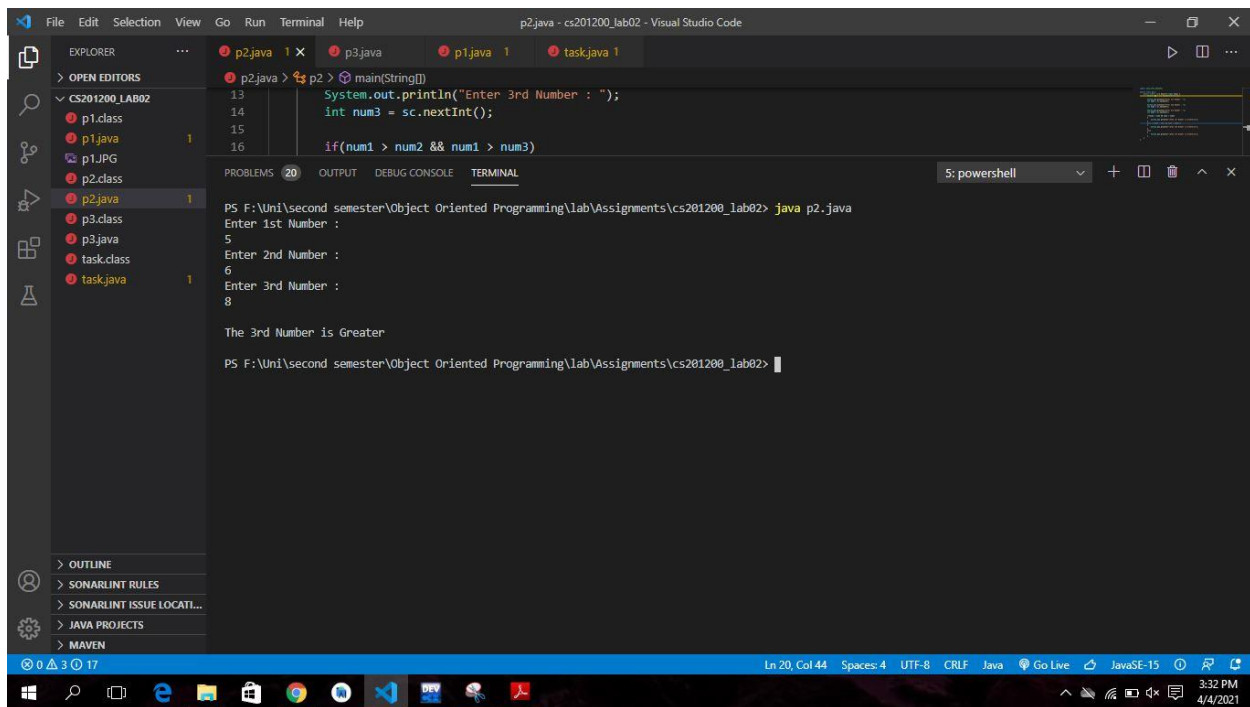
        System.out.println("Enter 1st Number : ");
        int num1 = sc.nextInt();

        System.out.println("Enter 2nd Number : ");
        int num2 = sc.nextInt();

        System.out.println("Enter 3rd Number : ");
        int num3 = sc.nextInt();

        if(num1 > num2 && num1 > num3)
        {
            System.out.println("\nThe 1st Number is Greater\n");
        }
        else if(num2 > num1 && num2 > num3)
        {
            System.out.println("\nThe 2nd Number is Greater\n");
        }
        else
        {
            System.out.println("\nThe 3rd Number is Greater\n");
        }
    }
}
```

OUTPUT:



PROGRAM NO 3:-

SOURCE CODE:

```
public class p3 {  
    public static void main(String[] args) {  
  
        System.out.println("FIRST PATTERN\n");  
  
        for (int i = 1; i <= 5; i++) {  
            for (int j = 5; j >= i; j--) {  
                System.out.print(" ");  
            }  
            for (int k = 1; k <= i; k++) {
```

```

        System.out.print(i);
    }
    for (int l = 2; l <= i; l++) {
        System.out.print(i);
    }
    System.out.println();
}

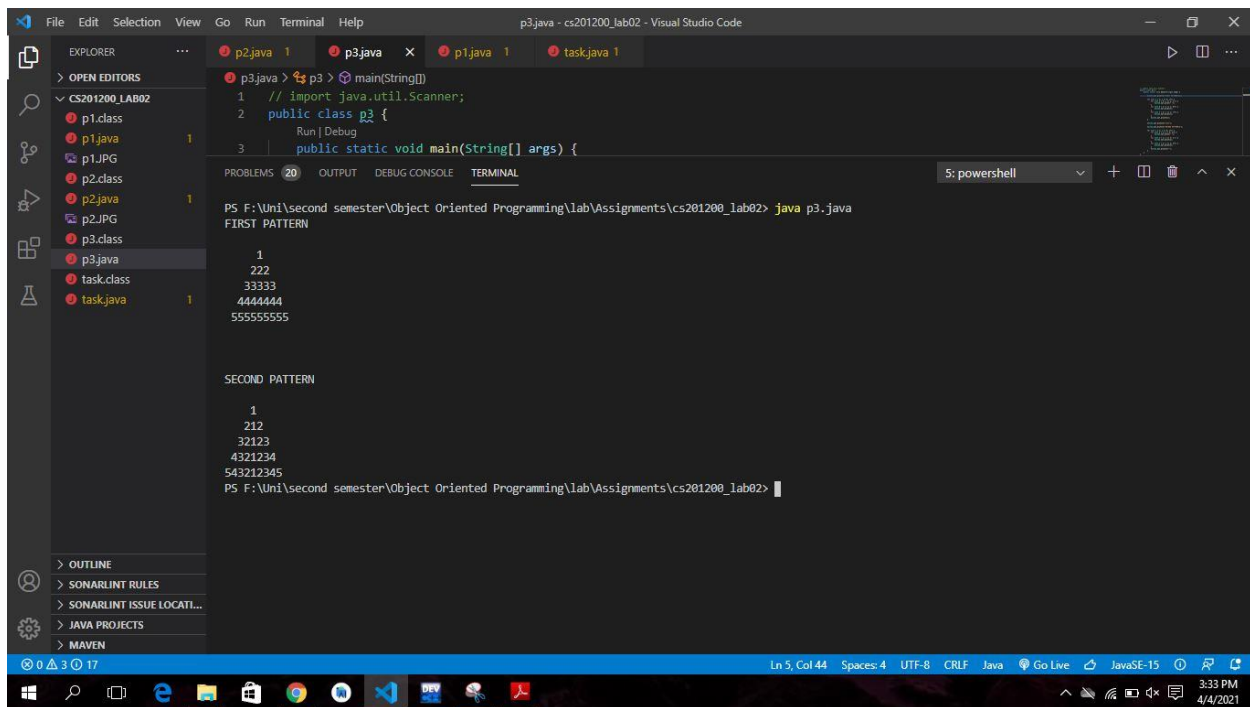
System.out.println("\n\n");

System.out.println("SECOND PATTERN\n");

for (int i = 1; i <= 5; i++) {
    for (int j = i; j < 5; j++) {
        System.out.print(" ");
    }
    for (int j = i; j >= 2; j--) {
        System.out.print(j);
    }
    for (int j = 1; j <= i; j++) {
        System.out.print(j);
    }
    System.out.println("");
}
}
}

```

OUTPUT:



TASK:-

SOURCE CODE:

```
import java.util.Scanner;

public class task{
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter Month Number : ");
        int month = sc.nextInt();
        System.out.println("Enter Year : ");
        int year = sc.nextInt();

        switch(month)
        {
```

```
case 1:
{
    System.out.println("\nJanuary " + year + " has 31 days\n");
    break;
}
case 2:
{
    if(year % 4 == 0)
    {
        System.out.println("\nFebruary " + year + " has 29 days\n");
    }
    else
    {
        System.out.println("\nFebruary " + year + " has 28 days\n");
    }
    break;
}
case 3:
{
    System.out.println("\nMarch " + year + " has 31 days\n");
    break;
}
case 4:
{
    System.out.println("\nApril " + year + " has 30 days\n");
    break;
}
case 5:
{
    System.out.println("\nMay " + year + " has 31 days\n");
    break;
}
case 6:
{
    System.out.println("\nJune " + year + " has 30 days\n");
    break;
}
case 7:
{
    System.out.println("\nJuly " + year + " has 31 days\n");
    break;
}
case 8:
{
    System.out.println("\nAugust " + year + " has 31 days\n");
```

```
        break;
    }
    case 9:
    {
        System.out.println("\nSeptember " + year + " has 30 days\n");
        break;
    }
    case 10:
    {
        System.out.println("\nOctober " + year + " has 31 days\n");
        break;
    }
    case 11:
    {
        System.out.println("\nNovember " + year + " has 30 days\n");
        break;
    }
    case 12:
    {
        System.out.println("\nDecember " + year + " has 31 days\n");
        break;
    }
    default :
    {
        System.out.println("Enter Valid number!");
    }
}
}
```

OUTPUT:

