

OBJECT ORIENTED PROGRAMMING LAB**Experiment No.: 21****Name: Reshma K S****Roll No:27****Batch:mca b****Date:31-05-2022****Aim**

Program to performe stack operation..

Procedure

```
import java.util.*;
public class stack
{
    public static void main(String args[])
    {
        int choice;
        int top=-1;
        int size=0;
        int data=0;
        Scanner sc= new Scanner(System.in);
        System.out.println("enter the size of the stack:");
        size=sc.nextInt();
        int arr[]= new int[size];

        while(true)
        {
            System.out.println("please choose a valid option..");
            System.out.println("1.PUSH");
            System.out.println("2.POP");
            System.out.println("3.view");
            System.out.println("4.exit");
            choice=sc.nextInt();
            switch(choice)
            {
                case 1:
                    if(top == size)
                    {
                        System.out.println("stack overflow.....");
                    }
                    else
                    {

```

```
        top++;
        System.out.println("enter the elements u want to insert");
        data=sc.nextInt();
        arr[top]=data;
        System.out.println("insertation success..");
    }

    break;
    case 2:
    if(top== -1)
    {
        System.out.println("stack underflow..");
    }
    else
    {
        System.out.println("pop operation success");
        System.out.println("deleted"+arr[top]);
        top--;
    }
    break;
    case 3:
    if(top== -1)
    {
        System.out.println("stack underflow..");
    }
    else
    {
        System.out.println("the stack elements are:");
        for(int i=top;i>=0;i--)
        {
            System.out.println(arr[i]);
        }
    }
    break;
    case 4:
    System.exit(0);

}
}
```

Output Screenshot

```
D:\>javac stack.java
D:\>java stack
enter the size of the stack:
3
please choose a valid option..
1.PUSH
2.POP
3.view
4.exit
1
enter the elements u want to insert
4
insertation success..
please choose a valid option..
1.PUSH
2.POP
3.view
4.exit
1
enter the elements u want to insert
5
insertation success..
please choose a valid option..
1.PUSH
2.POP
3.view
4.exit
1
enter the elements u want to insert
6
insertation success..
please choose a valid option..
1.PUSH
2.POP
3.view
4.exit
3
```

```
the stack elements are:
6
5
4
please choose a valid option..
1.PUSH
2.POP
3.view
4.exit
2
pop operation success
deleted6
please choose a valid option..
1.PUSH
2.POP
3.view
4.exit
3
the stack elements are:
5
4
please choose a valid option..
1.PUSH
2.POP
3.view
4.exit
4
```

