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**Roll No:52**

**Batch:MCA-B**

**Date:02-04-22**

**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: 21**

**Aim:**

Program to create a generic stack and do the Push and Pop operations.

**Program:**

import java.util.\*;

public class Stack

{

public static void main(String args[])

{

int n,ch;

StackOp st=new StackOp();

Scanner sc=new Scanner(System.in);

System.out.println("\n Enter the size of the stack\n");

n=sc.nextInt();

st.stack=new int[n];

do

{

System.out.println("Please select a option");

System.out.println("1.PUSH");

System.out.println("2.DISPLAY");

System.out.println("3.POP");

System.out.println("4.EXIT");

ch=sc.nextInt();

switch(ch)

{

case 1: st.push(n);

break;

case 2: st.pop();

break;

case 3: st.display();

break;

case 4: System.exit(0);

}

}

while(ch!=4);

}

}

class StackOp

{

int item;

int top=-1;

int[] stack;

Scanner sc=new Scanner(System.in);

void push(int n)

{

if(top>=n-1)

System.out.println("\n Stack Overflow..!");

else

{

System.out.println("\n Enter an item\n");

item=sc.nextInt();

top++;

stack[top]=item;

}

}

void pop()

{

if(top==-1)

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

else

{

System.out.println("\n item "+stack[top]+" is poping out...!");

top--;

}

}

void display()

{

int i=top;

if(top==-1)

System.out.println("\n Stack is empty\n");

else

{

System.out.println("\n The elements in the stack are\n");

for(i=0;i<=top;i++)

System.out.print(stack[i]+"\t");

}

}

}

**OUTPUT:**



