

```

import java.io.*;
import java.util.*;
interface stackoperation
{
    public void push(int i);
    public void pop();
}
class Astack implements stackoperation
{
    int stack[]=new int[5];
    int top=-1;
    int i;
    public void push(int item)
    {
        if(top>=4)
        {
            System.out.println("Stack is full");
        }
        else
        {
            top=top+1;
            stack[top]=item;
            System.out.println("Item pushed: "+stack[top]);
        }
    }
    public void pop()
    {
        if(top<0)
            System.out.println("Stack is empty");
        else
        {
            System.out.println("Item popped: "+stack[top]);
            top=top-1;
        }
    }
    public void display()
    {
        if(top<0)
            System.out.println("No Element in stack");
        else
        {
            System.out.println("The elements are: ");
            for(i=0;i<=top;i++)
                System.out.println(stack[i]);
        }
    }
}

```



```

class teststack
{
public static void main(String args[])
{
int ch,c;
int i;
int j=1;
Astack s=new Astack();
Scanner in=new Scanner(System.in);
while(j>0)
{
System.out.println("ARRAY STACK");
System.out.println("1.Push\n2.Pop\n3.Display\n4.Exit\n");
System.out.println("Enter ur choice:");
ch=in.nextInt();
switch(ch)
{
case 1:
System.out.println("Enter the value to push:");
i=in.nextInt();
s.push(i);
break;
case 2:
s.pop();
break;
case 3:
s.display();
break;
case 4:
return;
}
}
}
}

```



```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS E:\STUDY MATERIALS\SEMESTER 5\Lab\Oops Java\ex6_stack adt> javac stackoperation.java
PS E:\STUDY MATERIALS\SEMESTER 5\Lab\Oops Java\ex6_stack adt> java teststack
ARRAY STACK
1.Push
2.Pop
3.Display
4.Exit

Enter ur choice:
1
Enter the value to push:
5
Item pushed: 5
ARRAY STACK
1.Push
2.Pop
3.Display
4.Exit

Enter ur choice:
3
The elements are:
5
ARRAY STACK
```

```
2.Pop
3.Display
4.Exit

Enter ur choice:
1
Enter the value to push:
9
Item pushed: 9
ARRAY STACK
1.Push
2.Pop
3.Display
4.Exit

Enter ur choice:
2
Item popped: 9
ARRAY STACK
1.Push
2.Pop
3.Display
4.Exit

Enter ur choice:
4
PS E:\STUDY MATERIALS\SEMESTER 5\Lab\Oops Java\ex6_stack adt>
```