

```

import java.io.*;
class stack_char
{
    char ch[];
    int size,top;
    stack_char(int nn)
    {
        size=nn;
        top=-1;
        ch=new char[size];
    }
    public void push(char v)
    {
        if(top==(size-1))
        {
            System.out.println("Stack is full");
        }
        else
        {
            top++;
            ch[top]=v;
        }
    }
    public char pop()
    {
        char v;
        if(top==-1)
        {
            return("\n");
        }
        else
        {
            v=ch[top];
            System.out.println("Popped element is "+v);
            top--;
            return(v);
        }
    }
    public void display()
    {

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```

if(top==-1)
{
    System.out.println("Stack Empty");
}
else
{
    // System.out.println("stack elements are & stack pointer= "+ch[top]);
    for(int i=top-1;i>=0;i--)
    { i = top-1 i-- }
    System.out.println("Stack elements are "+ch[i]);
}
}

```

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}
public static void main(String args[])throws IOException

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```

{
    InputStreamReader isr=new InputStreamReader(System.in);
    BufferedReader br=new BufferedReader(isr);
    stack_char s1=new stack_char(20);

```

```

    s1.push('A');
    s1.push('B');
    s1.push('C');
    s1.push('D');
    s1.push('E');
    s1.display();
    char chr=s1.pop();
    System.out.println("popped element = "+chr);
    s1.display();
}

```

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}

```

```

import java.io.*;
class stack_string
{
    String str[];
    int size,top;
    stack_string(int nn)
    {
        size=nn;
        top=-1;
        str=new String[size];
    }
    public void push(String v)
    {
        if(top==(size-1))
        {
            System.out.println("Stack is full");
        }
        else
        {
            top++;
            str[top]=v;
        }
    }
    public String pop()
    {
        String v;
        if(top==-1)
        {
            return("\\");
        }
        else
        {
            v=str[top];
            System.out.println("Popped element is "+v);
            top--;
            return(v);
        }
    }
    public void display()
    {

```

```

if(top==-1)
{
    System.out.println("Stack Empty");
}
else
{
    // System.out.println("stack elements are & stack pointer= "+ch[top]);
    for(int i=top-1;i>=0;i--)
    {
        System.out.println("Stack elements are "+str[i]);
    }
}
}

public static void main(String args[])throws IOException
{
    InputStreamReader isr=new InputStreamReader(System.in);
    BufferedReader br=new BufferedReader(isr);
    stack_string s1=new stack_string(20);

    s1.push("Sanju");
    s1.push("Salman");
    s1.push("Ranbir");
    s1.push("Amir");
    s1.push("Varun");
    s1.display();
    String str1=s1.pop();
    System.out.println("popped element = "+str1);
    s1.display();
}
}

```