

→ write a program to simulate the working of stack using an array with the following:
 a) push b) pop c) display.

The program should print appropriate messages for stack overflow, stack underflow.

Pseudo code

```
int A[10]
```

```
top = -1;
```

→ push(x)

```
{
```

```
top = top + 1;
```

```
A[top] = x
```

```
}
```

```
top()
```

```
{
```

```
return A[top];
```

```
}
```

→ pop()

```
{
```

```
top = top - 1;
```

```
}
```

→ IsEmpty()

```
{
```

```
if (top == -1)
```

```
return True
```

```
else
```

```
return False
```

```
}
```

→ IsFull()

```
{
```

```
if (size == top)
```

```
return True
```

```
else
```

```
return False
```

```
}
```

Display f'n()

```
{
```

```
if (IsEmpty()) →
```

stack is empty

print empty stack

else

```
{
```

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

```
{ print elements
```

```
}
```

```
}
```

```
}
```