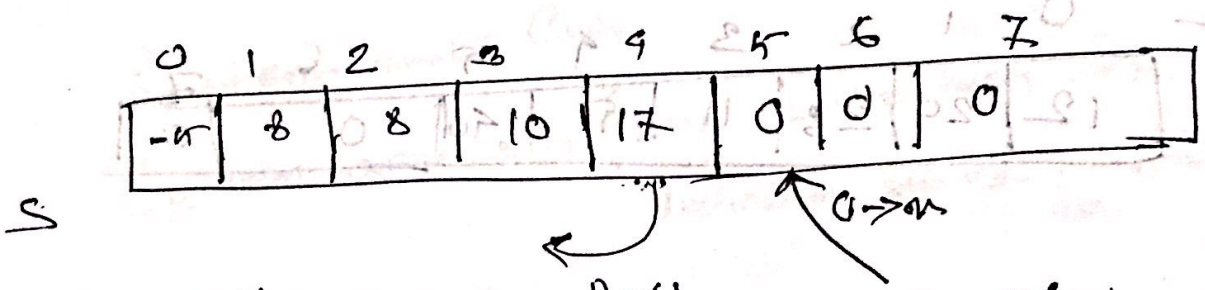
Stack

Stack implementation by Array:




```
isEmpty()
{  if (top = -1)
      returns true;

   returns false
}

Top()
{
      returns S[top]
}
```

if (top == -1)
→ underflow

else if (top >= 8)
→ overflow

Basic implementation by Array

```
int[] a = new int[15];
int top = -1;

static void push(int x)
{
    if (top <= a.length - 1)
    {
        ++top;
        a[top] = x;
    }
}

static void pop()
{
    if (top >= -1)
    {
        --top;
    }
```

```
}
int Top()
{
    if(top>=0 || top<=a.length-1)
    {
        return a[top];
    }
    else
    {
        S.O.Pln("Stack is out of boundary");
    }
}
boolean isEmpty()
{
    if(top>=0)
        return false;
    else
        return true;
}
```