

## CLASSES & OBJECTS

## PROGRAMMING NOTES

SUPPOSE WE CREATE A CLASS THAT TAKES A STRING AND RETURNS THE NUMBER OF CHARACTERS IN THE STRING, DOUBLED. IT MIGHT LOOK LIKE THIS:

```
public class DoubleString {
```

```
    String myString;  
    int charNum;
```

← Variables

```
    public DoubleString (String userString) {
```

```
        myString = userString;
```

```
    }
```

← CONSTRUCTOR

```
    public int getDouble () {
```

```
        charNum = myString.length();
```

```
        charNum = charNum * 2;
```

```
        return charNum;
```

```
    }
```

```
}
```

← METHOD

TO USE THIS CLASS IN A MAIN METHOD OF ANOTHER CLASS WE NEED THE NEW OPERATOR TO CREATE AN OBJECT OF THE CLASS:

```
DoubleString myDoubleString = new DoubleString ("Hello");
```

↑  
class name

↑  
object name

↑  
constructor

THEN THE DOT OPERATOR IS USED TO ACCESS THE FUNCTION WITHIN THE OBJECT:

```
int x = myDoubleString.getDouble();
```

↑ variable      ↑ object      ↑ function

x would now hold the value 10.