

### List

A list is a collection which is ordered and changeable. In Python lists are written with square brackets.

### List Example

```
R_YB_color = ["Red", "Yellow", "Blue"]
print(R_YB_color)
>>> ['Red', 'Yellow', 'Blue']
```

### Access Items

```
R_YB_color = ["Red", "Yellow", "Blue"]
print(R_YB_color[1])
>>> 'Yellow'

print(R_YB_color[-2])
>>> 'Yellow'
```

### Range of Indexes

```
R_Secondary = ["Red", "Yellow", "Blue", "Orange", "Green", "Purple"]
```

#### Example 1

```
print(R_Secondary[1:5])
>>> ['Yellow', 'Blue', 'Orange', 'Green']
```

**Note:** Index 5 is not included.

#### Example 2

```
print(R_Secondary[-5:-2])
>>> ['Yellow', 'Blue', 'Orange', 'Green']
```

**Note:** Index -2 is not included.

#### Example 3

```
print(R_Secondary[:5])
>>> ['Red', 'Yellow', 'Blue', 'Orange', 'Green']
```

**Note:** By leaving out the start value, the range will start at the first item.

#### Example 4

```
print(R_Secondary[1:])
>>> ['Yellow', 'Blue', 'Orange', 'Green', 'Purple']
R_YB_color.clear() #return an empty list
```

**Note:** By leaving out the end value, the range will go on to the end of the list.

### List Length

```
R_YB_color = ["Red", "Yellow", "Blue"]
print(len(R_YB_color))
>>> 3
```

### Change Item Value

```
R_YB_color = ["Red", "Yellow", "Blue"]
R_YB_color[1] = "Green"
print(R_YB_color)
>>> ['Red', 'Green', 'Blue']
```

### Add Items

```
R_YB_color = ["Red", "Yellow", "Blue"]
```

Using the `append()` method to append an item to the end of the list.

```
R_YB_color.append("White")
>>> ['Red', 'Yellow', 'Blue', 'White']
```

Use the `insert()` method to add an item at the specified index.

```
R_YB_color.insert(2, "White")
>>> ['Red', 'Yellow', 'White', 'Blue']
```

### Delete Items

```
R_YB_color = ["Red", "Yellow", "Blue"]
```

```
R_YB_color.remove("Yellow") #remove the item "Yellow"
```

```
R_YB_color.pop() #remove the indicated index or the last item if index not specified. In this case the item "Blue" will be removed
```

```
del R_YB_color[1] #remove the item "Yellow"
```

```
del R_YB_color #delete the whole list
```

```
R_YB_color.clear() #return an empty list
```

### Check if Item Exists

```
R_YB_color = ["Red", "Yellow", "Blue"]
if "Yellow" in R_YB_color:
    print("Yes")
```

