In [1]:
```
initial_list = []
print(initial_list)
```

```
[]
```

In [2]:
```
DA_languages = ['R','Python', 'SAS', 'Scala', 42]
print(DA_languages)
```

```
['R', 'Python', 'SAS', 'Scala', 42]
```

In [3]:
```
print(DA_languages[0])
```

```
R
```

In [4]:
```
print(DA_languages[1:3])
```

```
['Python', 'SAS']
```

In [5]:
```
print(DA_languages[0:2])
```

```
['R', 'Python']
```

In [6]:
```
print(DA_languages[-1])
```

```
42
```

In [7]:
```
print(DA_languages[2:])
```

```
['SAS', 'Scala', 42]
```

In [8]:
```
print(DA_languages[ : -3])
```

```
['R', 'Python']
```

In [9]:
```
DA_languages = ['R','Python', 'SAS', 'Scala', 42]
DA_languages.append('Java')
print(DA_languages)
```

```
['R', 'Python', 'SAS', 'Scala', 42, 'Java']
```

In [10]:
```
DA_languages.pop()
```

Out[10]:
```
'Java'
```

In [11]:
```
DA_languages.pop(0)
print(DA_languages)
```

```
['Python', 'SAS', 'Scala', 42]
```

In [12]:
```
DA_languages.pop(1)
print(DA_languages)
```

```
['Python', 'Scala', 42]
```

In [16]:
```
DA_languages.append('R')
DA_languages.remove('R')
print(DA_languages)
```

```
['Python', 'Scala', 42, 'R', 'R']
```

In [13]:
```
print(DA_languages.append('R'))
```

```
None
```

In [17]:
```
new_list = DA_languages
DA_languages.append('Java')
print(new_list)
```

```
['Python', 'Scala', 42, 'R', 'R', 'Java']
```

In [18]:
```
print(id(DA_languages))
```

```
2819545248328
```

In [19]:
```
print(id(new_list))
```

```
2819545248328
```

In [20]:
```
new_list = DA_languages[:]
print(id(new_list))
```

```
2819546060232
```

In [21]:
```
another_list = DA_languages.copy()
print(id(another_list))
```

```
2819546060296
```

In [22]:
```
a_sentence = "Hi Saif, this is to inform you that I'm not well today."
```

In [23]:
```
words_in_sentence = a_sentence.split()
print(words_in_sentence)
```

```
['Hi', 'Saif,', 'this', 'is', 'to', 'inform', 'you', 'that', "I'm", 'not', 'w
ell', 'today.']
```

In [24]:
```
a_mail = "Hi Saif, this is to inform you that I'm not well today. I won't be c
oming to office, but I'm available on call. Thanks."
```

In [25]:
```
sentences_in_mail = a_mail.split('.')
print(sentences_in_mail)
```

```
["Hi Saif, this is to inform you that I'm not well today", " I won't be comin
g to office, but I'm available on call", ' Thanks', '']
```

In [26]:
```
mail = " ".join(sentences_in_mail)
print(mail)
```

```
Hi Saif, this is to inform you that I'm not well today  I won't be coming to
office, but I'm available on call  Thanks
```

In [27]:
```
mail_new = " & ".join(sentences_in_mail)
print(mail_new)
```

```
Hi Saif, this is to inform you that I'm not well today &  I won't be coming t
o office, but I'm available on call &  Thanks &
```

In [28]:
```
my_list = ["Hi"]
print(my_list*5)
```

```
['Hi', 'Hi', 'Hi', 'Hi', 'Hi']
```

In [29]:
```
print(my_list + my_list)
```

```
['Hi', 'Hi']
```

In [30]:
```
nums = [2,6,9,3,2,1]
print(len(nums))
```

```
6
```

In [31]:
```
print(sorted(nums))
```

```
[1, 2, 2, 3, 6, 9]
```

In [32]:
```
print(max(nums))
```

```
9
```

In [33]:
```
print(min(nums))
```

```
1
```

In [34]:
```
nest = [[1, 2, 3, 4], [ 5, 6, 7], [8, 9, 10]]

print(nest[1])
```

```
[5, 6, 7]
```

In [35]:
```
print(nest[0][1])
```

```
2
```

In [36]:
```
print(nest[0:2])
```

```
[[1, 2, 3, 4], [5, 6, 7]]
```