

1. Create a list of 5 of your favorite tv shows:

```
movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
print(movieList)  
  
['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']
```

2. Print the list in its original order.

```
movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
print(movieList)  
  
['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']
```

3. Use the sorted() function to print the list in alphabetical order. How is sorted() different from sort()?

Sort() arranges the list but replaces the original list, whereas sorted(list) returns a sorted copy of the list, without changing the original list.

```
movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
print(sorted(movieList))  
  
['Avatar: The Last Airbender', 'Merlin', 'Prison Break', 'Psych', 'Scrubs']
```

4. Print out your original list:

```
movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
print(sorted(movieList))  
print(movieList)  
  
['Avatar: The Last Airbender', 'Merlin', 'Prison Break', 'Psych', 'Scrubs']  
['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']
```

5. Used sorted() to print your list in reverse alphabetical order:

```
movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
print(sorted(movieList, reverse = True))  
  
['Scrubs', 'Psych', 'Prison Break', 'Merlin', 'Avatar: The Last Airbender']
```

6. Create a message indicating how many favorite TV shows you have – use the len() function.

```
movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
  
print("I have", len(movieList), "favorite TV shows.")  
  
I have 5 favorite TV shows.
```

## Unit 2 Lecture 4

1. Create a list that holds 5 data variables.

```
movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
  
print(movieList)  
  
['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']
```

2. Print out those variables by using a for loop.

```
movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
  
for movie in movieList:  
    print(movie)  
  
Merlin  
Avatar: The Last Airbender  
Prison Break  
Psych  
Scrubs
```

3. Modify your for loop to add a message to your for loop.

```
movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
  
for movie in movieList:  
    print(movie, "is one of my favorite TV shows in the last decade.\n")  
  
Merlin is one of my favorite TV shows in the last decade.  
  
Avatar: The Last Airbender is one of my favorite TV shows in the last decade.  
  
Prison Break is one of my favorite TV shows in the last decade.  
  
Psych is one of my favorite TV shows in the last decade.  
  
Scrubs is one of my favorite TV shows in the last decade.
```

4. Use a for loop to print even numbers from 1-20.

```
▶ for i in range(1,21):  
    print(i)
```

```
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20
```

5. Sort your list in alphabetical order:

```
▶ movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
movieList.sort()  
print(movieList)
```

```
['Avatar: The Last Airbender', 'Merlin', 'Prison Break', 'Psych', 'Scrubs']
```

6. Print out the first three elements of your list:

```
▶ movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
movieList.sort()  
for movie in movieList[:3]:  
    print(movie)
```

```
Avatar: The Last Airbender  
Merlin  
Prison Break
```

7. Create a loop to print the last 2 elements of your list:



```
movieList = ['Merlin', 'Avatar: The Last Airbender', 'Prison Break', 'Psych', 'Scrubs']  
movieList.sort()  
for movie in movieList[-2:]:  
    print(movie)
```

Psych  
Scrubs