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# Name Dipika Sharma
# DSC 540-T302 Data Preparation
# Week 1&2
# Question 2
```

```
# 2. Create a Jupyter notebook where you create a list, iterate over the list
# and sort your results, generate random
# numbers, add to the list, and then print your results.
```

```
import random
```

```
if __name__ == '__main__':
```

```
    # Create a list
```

```
    l = [6, 9, 2, 8, 1, 5, 3]
```

```
    # Iterate over the list and sort your result
```

```
    for i in range(0, len(l) - 1):
```

```
        for j in range(i + 1, len(l)):
```

```
            if (l[i] > l[j]):
```

```
                l[i], l[j] = l[j], l[i]
```

```
    print("Sorted list : ")
```

```
    print(l)
```

```
    print(random.choice(l))
```

```
    # generate random number
```

```
    n = random.randint(1, 50)
```

```
    # Add random number to the list
```

```
    l.append(n)
```

```
    # Print the list
```

```
    print(l)
```

```
Sorted list :
```

```
[1, 2, 3, 5, 6, 8, 9]
```

```
9
```

```
[1, 2, 3, 5, 6, 8, 9, 45]
```

[3]:

```
# Question 3
```

```
# Create a line chart with Matplotlib and the following data file.
```

```
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
```

```
var = pd.read_excel('world-population.xlsm')
```

```
x = list(var['Year'])
y = list(var['Population'])
plt.plot(x, y)
plt.show()
```

