## Lists and For Loops: Takeaways 🖻

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## **Syntax**

• Creating a list of data points:

```
row_1 = ['Facebook', 0.0, 'USD', 2974676, 3.5]
row_2 = ['Instagram', 0.0, 'USD', 2161558, 4.5]
```

• Creating a list of lists:

```
data = [row_1, row_2]
```

• Retrieving an element of a list:

```
first_row = data[0]
first_element_in_first_row = first_row[0]
first_element_in_first_row = data[0][0]
last_element_in_first_row = first_row[-1]
last_element_in_first_row = data[0][-1]
```

• Retrieving multiple list elements and creating a new list:

```
row_1 = ['Facebook', 0.0, 'USD', 2974676, 3.5]
rating_data_only = [row_1[3], row_1[4]]
```

• Performing list slicing:

```
python
row_1 = ['Facebook', 0.0, 'USD', 2974676, 3.5]
second_to_fifth_element = row_1[1:4]
```

• Opening a data set file and using it to create a list lists:

```
opened_file = open('AppleStore.csv')
from csv import reader
read_file = reader(opened_file)
apps_data = list(read_file)
```

• Repeating a process using a for loop:

```
row_1 = ['Facebook', 0.0, 'USD', 2974676, 3.5]
for data_point in row_1:
    print(data_point)
```

## Concepts

- A **data point** is a value that offers us some information.
- A set of data points make up a **data set**. A table is an example of a data set.
- Lists are data types which we can use to store data sets.
- Repetitive process can be automated using **for loops**.

## Resources

- Python Lists
- Python Loops
- More on CSV files
- A list of keywords in Python for and in are examples of keywords (we used for and in to write for loops)



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