Importing Libraries + setting up namespace

In [1]:
```
import requests
import json
import matplotlib.pyplot as plt
```

I can use an API to get the data in JSON format.

I used a website called datausa to get all of my data.

- It's free
- I don't need an API key
- It's fine for a demonstration

  I fetched the raw JSON from the API and appended `.json()` to make python import it as a JSON object.

In [2]:
```
formatted_data = requests.get("https://datausa.io/api/data?drilldowns=Nation&
```

Loading the JSON data into lists

I need to make the raw JSON data into some lists that I can put into a graph. To do this I need to:

- Create my arrays
- Get only the data I want
- Ensure the Year/Population indexes are correctly mapped to eachother
- Make sure it's properly ordered

In [3]:
```
### Creating my arrays
yearArray = []
popArray = []
```

In [4]:
```
### Getting only the data I want
for i in range(len(formatted_data["data"])):
    ### Using I to ensure that the Year/Population indexes are correctly mapp
    yearArray.append(formatted_data["data"][i]["Year"])
    popArray.append(formatted_data["data"][i]["Population"])
```

In [5]:
```
### Making sure it's properly ordered
yearArray = yearArray[::-1]
popArray = popArray[::-1]
```

Creating and Plotting my Graph

Here I need to first setup my parameters and assign the datasets to the right axis on my graph.

In [6]:

```
plt.scatter(yearArray, popArray)
plt.rcParams.update({'figure.figsize':(14,14), 'figure.dpi':100})
plt.title('US Population Growth Year on Year')
plt.xlabel('Year')
plt.ylabel('Population (Billions)')
plt.show()
```