

Building an IP Lookup Tool

- The first step is to create and navigate into the /03-student/day3/IP_Lookup_Tool folder on your VM. To do this, run the following command:

- `cd /03-student/day3/IP_Lookup_Tool`

- Begin with running the new command to see what data it returns on an IP address:

- `curl -s http://ipinfo.io/104.223.95.86`
 - This returns:

```
"ip": "104.223.95.86",  
"hostname": "r-86-95-223-104.consumer-pool.prcdn.net",  
"city": "Atlanta",  
"region": "Georgia",  
"country": "US",  
"loc": "33.7490,-84.3880",  
"org": "AS8100 QuadraNet Enterprises LLC",  
"postal": "30302",  
"timezone": "America/New_York",  
"readme": "https://ipinfo.io/missingauth"
```

- To do this, we will first modify the script to grep the line that has the country:
 - `curl -s http://ipinfo.io/104.223.95.86 | grep country`

- When you run this command, it will return the following

```
"country": "US",
```

- Use awk to isolate out the value of "US" from this line.

- To do this, filter by : as this is what separates the title of "country" and the value:
 - `curl -s http://ipinfo.io/104.223.95.86 | grep country | awk -F: '{print $2}'`
 - We also print out the second value since that field contains the country.
- **The previous command returns the following:**
"US",
- **Place this script into a file called IP_lookup.sh:**
 - `nano IP_lookup.sh`
 - We will place the command within this script.
- **Make the IP address an argument that is passed, so we will replace the IP with \$1.**
 - `curl -s http://ipinfo.io/$1 | grep country | awk -F: '{print $2}'`
- **Save the Nano file**
- **Run the following three commands to confirm the script can identify the country from the IP addresses:**
 - `sh IP_lookup.sh 133.18.55.255`
 - `sh IP_lookup.sh 41.34.55.255`
 - `sh IP_lookup.sh 187.54.23.8`

The results should show:

- "JP", (Japan)
 - "EG", (Egypt)
 - "BR", (Brazil)
-