# Monsoon and Local Machine Compatibility

By: Kainoa Boyce

# Purpose

- Testing code on Monsoon is inefficient (resources)
- Running intensive code on a laptop is inefficient (time)

## Solution & Criteria

- Write code that can run on both a local machine and Monsoon

- Code must be modular
  - Library
- Limited Hardcode
- Determine if the program is on Monsoon or Local
  - `platform.system() : returns OS`
  - ask user

# Python Implementation

## Library

```
# monsoon related paths
monsoon_root_path = "/projects/canis/mcs_storm"
monsoon_csv_files = monsoon_root_path + "/csv_files"
monsoon_unfiltered_data = monsoon_csv_files + "/unfiltered_data"
monsoon_filtered_data = monsoon_csv_files + "/filtered_data"
monsoon_intermediate_data = monsoon_filtered_data + "/intermediate_data"
monsoon_master_csv = monsoon_csv_files + "/master_csv"

# TODO: Add Percipitation Data to Monsoon
monsoon_precipitation = monsoon_unfiltered_data + "/arizona_precipitation"

# local machine related paths
local_root_path = "/Users/kainoaboyce/Documents/NAU/FALL 2019/CS 485"
local_csv_files = local_root_path + "/csv_files"
local_unfiltered_data = local_csv_files + "/unfiltered_data"
local_filtered_data = local_csv_files + "/filtered_data"
local_intermediate_data = local_csv_files + "/filtered_data/intermediate_data"
local_master_csv = local_csv_files + "/master_csv"

local_precipitation = local_unfiltered_data + "/arizona_precipitation"
```

## Program

```
if len(argv) != 3:
    raise ValueError("Invalid Number of Arguements!\n" +
                     "argv[0] - this program\n" +
                     "argv[1] - machine type\n" +
                     "argv[2] - concat file name\n")

machine_type = parser.get_machine_type( argv[1] )
```

```
if machine_type == "monsoon":
    intermediate_data_path = parser.monsoon_master_csv + "/intermediate_data_master.csv"
    Arizona_path = parser.monsoon_filtered_data + "/Arizona"
    Dallas_path = parser.monsoon_filtered_data + "/Dallas"

else:
    intermediate_data_path = parser.local_master_csv + "/intermediate_data_master.csv"
    Arizona_path = parser.local_filtered_data + "/Arizona"
    Dallas_path = parser.local_filtered_data + "/Dallas"
```