**Functions**

1. **Python Basics**
2. Square root function

import math

root = math.sqrt(99)

1. Floor Function to round off to integer

import math

flr = math.floor(89.9)

1. Variables Within Modules

import math

print(math.pi)

a = math.sqrt(math.pi)

b = math.ceil(math.pi)

c = math.floor(math.pi)

1. Csv reader function

import csv

f = open("nfl.csv", 'r')

csvreader = csv.reader(f)

nfl = list(csvreader)

1. Classes and objects

class Dataset:

def \_\_init\_\_(self):

self.type = "csv"

class Dataset:

def \_\_init\_\_(self, data):

self.data = data

f = open("nfl.csv", 'r')

csvreader = csv.reader(f)

nfl\_data = list(csvreader)

nfl\_dataset = Dataset(nfl\_data)

dataset\_data = nfl\_dataset.data

1. Enumerate function

class Dataset:

def \_\_init\_\_(self, data):

self.header = data[0]

self.data = data[1:]

def column(self, label):

if label not in self.header:

return None

index = 0

for idx, element in enumerate(self.header):

if label == element:

index = idx

column = []

for row in self.data:

column.append(row[index])

return column

nfl\_dataset = Dataset(nfl\_data)

year\_column = nfl\_dataset.column('year')

player\_column = nfl\_dataset.column('player')

1. Set() function for unique elements

unique\_animals = set(["Dog", "Cat", "Hippo", "Dog", "Cat", "Dog", "Dog", "Cat"])

print(unique\_animals)

1. Try and except block

try:

int('')

except Exception:

print("There was an error")

try:

int('')

except Exception:

pass

1. Add a column in dataset

for row in legislators:

y = row[2].split('-')[0]

try:

birth\_year = int(y)

except Exception:

birth\_year = 0

row.append(birth\_year)

print(legislators[0:10])

1. Filling missing values in column with last value

last\_value = 1

for row in legislators:

if row[7] == 0:

row[7] = last\_value

last\_value = row[7]