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CWRU Data Analytics Boot Camp

Spring 2020

Module 02-Python | HW3

Topics Covered: python, looping, csv reading, lists, indexing

Background

Use Python programming in two real-world programming challenges. In the first challenge, PyBank, the goal is to create a Python script for analyzing the daily financial records of a company and print a summary report. In the second challenge, PyPoll, the goal is to read the raw polling data for a small town to count the distribution of votes by candidate and declare a winner.

REPORT:

The programming codes are named as can be found in the excel file: **PyBank\_Solved\_ST.py** and **Pybank\_Solved\_ST.py**

Steps Followed:

1. Define environment variables and initialize.

2. Read data one row at a time, while appending the variables

3. Change in profit/loss between rows was computed using the differential function in the **numpy** library for efficiency.

4. Compute the necessary parameters and print the required summary output to screen and to a text file.

Output:

Financial Analysis Compiled by Suraj Thyagaraj

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Total Months: 86

Net Profit : 38382578

Average Change : $-2315.120000

Maximum Profit of $1170593 achieved during Feb-2012

Largest Loss of $-1196225 seen during Sep-2013

Greatest Increase in Profits: Feb-2012 $1926159

Greatest Decrease in Profits: Sep-2013 $-2196167

**PyPoll\_Solved\_ST.py**

Steps Followed:

1. Define environment variables and initialize. A list was created to associate candidate name by their total votes.

2. Read data one row at a time, while appending the total votes and votes by candidate.

3. Print the unique list of candidates.

4. Once votes are finished counting, go through the candidate votes list to print a summary of votes broken down by candidates.

5. From this info, identify the candidate with the most votes and declare him/her winner.