**Creating a CSV file in Python**

**Introduction:**

* Help Python users learn to create a csv file.
* Instructions can be done at any time before starting your code.
* Users will be able to use csv to analyze data.

**Requirements:**

* Computer device (PC or Laptop)
* Anaconda Server installed
* Pycharm Browser
* Python 3.0 program installed
* Data

***Note:*** It is recommended for your device to have a minimum i7 processor.

**Users:**

* Engineering students enrolled in ENGR-102-216
* New learners to Python Programmers.
* Computer Engineering

**Purpose:**

* Provide a template/fundamental of how to properly create a csv file.
* Inform users of creating “for loops” to analyze encrypted data in Python.
* Reduce time and stress while creating a csv file.

**Method:**

|  |  |
| --- | --- |
| A sign on the side of the water  Description automatically generated | 1. Click on Pycharm to open the App. |
| A screenshot of a cell phone  Description automatically generated | 1. Click create a new project. |
| A screenshot of a cell phone  Description automatically generated | 1. Create a new project in python, then go to file and click create a new text file. |
| A screenshot of a cell phone  Description automatically generated | 1. Type in the name for your file, ex (Data.1). |
| A screenshot of a computer screen  Description automatically generated | 1. Click Enter |
| A screenshot of a cell phone  Description automatically generated | 1. Click on the first line. |
| A screenshot of a cell phone  Description automatically generated | 1. Type the design of your header sections and separate it by a comma, ex. (Time, Velocity, Acceleration,) on the first line. |
| A screenshot of a computer  Description automatically generated | 1. Type out the second and rest of the lines with your data, ex (1.2, 5, 4.16,) |
| A screenshot of a cell phone  Description automatically generated | 1. Create a new python file for reading the csv document after completing your csv file. |
| A screenshot of a cell phone  Description automatically generated | 1. Click on the first line. |
| A screenshot of a cell phone  Description automatically generated | 1. Open the file by typing the code “my\_file = open("Data.1", "r")” |
| A screenshot of a cell phone  Description automatically generated | 1. Click enter for a new line |
| A screenshot of a cell phone  Description automatically generated | 1. Type the code “import csv”, then click enter. |
| A screenshot of a cell phone  Description automatically generated | 1. Type the reader command “reader = cvs.reader(my\_file)”. |
| A screenshot of a cell phone  Description automatically generated | 1. Press enter. |
| A screenshot of a cell phone  Description automatically generated | 1. Click enter again. |
| A screenshot of a cell phone  Description automatically generated | 1. Create a loop to read each line by typing “for row in reader:” |
| A screenshot of a cell phone  Description automatically generated | 1. Close the file by stating the following code: my\_file.close(). |

*Your console should now be able to read the csv data from your document*

**Definitions:**

* ***csv****: this stands for Comma Separated Value. These files will be most similar to the ones you work on Excel, only difference that instead of having your data separated by cells, you will have them separated by commas.*
* ***Pycharm****: is an IDE(Integrated Development Environment) by Jetbrains. It is used for development in Python and frameworks.*
* ***Module****: A Python file with built- in functions for working with a specific task (Math, Statistics, Graphing, etc.)*
* ***Variable****: A memory location for storage values, such as x = 5, or zero = 0, etc.*
* ***Console****: The output of your input code. This section will be often show at the bottom of your Laptop Monitor.*

**Warnings**

* Make sure you separate your values on csv by a comma, not a space or a period.
* Copy and paste each module, the program will not run if your variables or modules are not the same.
* Use a for loop rather than while loops to prevent infinite loops.
* If the program doesn’t run, debug it line by line.

**Prior Knowledge:**

* Python Programing
* Mathematics; Calculus, Physics, Algebra

**Prior Skills:**

* Creation of loops in Python

**Conclusion:**

You have now properly created a csv file document in Python. This was possible by creating a for loop able to reach each line and identify its variables values and characters. You are now one step closer to becoming a python programmer, congratulations. This is just the basic fundamentals of how to open and read a csv, however; you can also modify this csv file to your own preferences. This will help you analyze documents such as Excel in Python for future calculations