Creating and Accessing Pandas DataFrames	
Course Code: CPE 031	Program: Computer Engineering
Course Title: Visualization and Data Analysis	Date Performed: 10/15/24
Section: CPE21S4	Date Submitted:10/15/24
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Intended Learning Outcomes (ILO):

By the end of this laboratory session, learners will be able to

 Construct and manipulate Pandas DataFrames from various data structures (such as lists, dictionaries, and NumPy arrays) while demonstrating an understanding of DataFrame attributes and methods. This includes loading the dataset, creating DataFrames with appropriate column labels and accessing data from rows and columns.

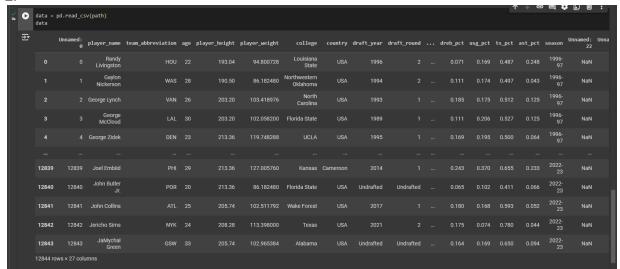
Instructions:

- Loading your dataset: Refer back to your chosen dataset from the PRELIM period.
 Whether you downloaded it or stored it in your Google Drive, you are required to load
 it into the <u>Google Colab</u>. Watch this <u>video</u> to learn more about how to read CSV files in
 Google Colab.(Take a screenshot to document successful execution.)
- 2. Creating a dataframe from your CSV file: Once you have successfully loaded your dataset, you need to create a dataframe from your uploaded CSV file.(Take a screenshot to document successful execution.)
- 3. Creating a dataframe from a dictionary of lists: Manually create a dictionary where each value is composed of a list from your original dataset, then load it into a dataframe, before printing it. You are required to provide at least five (5) observations in your list. (Take a screenshot to document successful execution.)
- 4. Creating a dataframe from a list of dictionaries: Manually create a list of dictionaries from your original dataset, then pass it into a dataframe, before printing it. You are required to provide at least five (5) observations in your list. (Take a screenshot to document successful execution.)
- 5. Selecting dataframe columns: Execute a method that would allow you to select a single and multiple dataframe columns. (Take a screenshot to document successful execution.)
- **6. Selecting dataframe rows:**Execute a method that would allow you to select a single and multiple dataframe rows using panda indexing and python indexing.

Output:

1.

2.



3.

```
↑ ↓ © 🗏 🗘 🗓 🗓
                         Ostalist - [
('player_name': 'Randy Livingston', 'team_abbreviation': 'HOU', 'age': '22', 'player_height': '193.04', 'player_weight': '94.800728'),
('player_name': 'Gaylon Nickerson', 'team_abbreviation': 'MAS', 'age': '26', 'player_height': '109.50', 'player_weight': '86.182480'),
('player_name': 'George Lynch', 'team_abbreviation': 'VAN', 'age': '26', 'player_height': '203.20', 'player_weight': '103.418976'),
('player_name': 'George Rccloud', 'team_abbreviation': 'LAL', 'age': '23', 'player_height': '203.20', 'player_weight': '120.68200'),
[[player_name': 'George Zidek', 'team_abbreviation': 'ENN', 'age': '23', 'player_height': '213.36', 'player_weight': '119.748288']]
                                                                   DataList = pd.DataFrame(DataList)
DataList
                                                                                                            player_name team_abbreviation age player_height player_weight 🔚
                                                                   | 1 | Gaylon Nickerson | HOU | 22 | 193.04 | 94.800728 | 1 | Gaylon Nickerson | WAS | 28 | 190.50 | 86.182480 | 2 | George Lynch | VAN | 26 | 203.20 | 103.418976 | 3 | George McCloud | LAL | 30 | 203.20 | 102.058200 | 4 | George Zidek | DEN | 23 | 213.36 | 119.748288 | 1 | Company 
  5.
  print("Single Column Selection: Player Name")
print(df['player_name'].head(5))
print("\n")
print("\n")
print("Multiple Column Selection: Player Name, Team Abbreviation")
print(df[['player_name', 'team_abbreviation']].head(5))
print("\n")
           Single Column Selection: Player Name

### Randy Livingston

1 Gaylon Nickerson

2 George Lynch

3 George McCloud

4 George Zidek

Name: player_name, dtype: object
                                                  Multiple Column Selection: Player Name, Team Abbreviation player name team_abbreviation

0 Randy Livingston HOU
1 Gaylon Nickerson WAS
2 George Lynch VAN
3 George McCloud LAL
4 George Zidek DEN
6.
        print(ef.10c(es))
print(yelloc(es))
print(yelloc
```