## Data Analysis with Python

## **Cheat Sheet: Importing Data Sets**

| Package/<br>Method      | Description   | Code Example   |
|-------------------------|---|--|
| Read CSV<br>data set    | Read the<br>CSV file<br>containing a<br>data set to a<br>pandas data<br>frame | <pre>df = pd.read_csv(<csv_path>, header = None) # load without header df = pd.read_csv(<csv_path>, header = 0) # load using first row as header</csv_path></csv_path></pre> Note: The labs in this course run in JupyterLite environment. In                                |
|                         |   | environment, you'll need to download the required file to the loc environment and then use the local path to the file as the CSV_I However, in case you are using JupyterLabs, or any other Pytho your local machine, you can use the URL of the required file dir CSV_path. |
| Print first few entries | Print the first few entries (default 5) of the pandas data frame              | <pre>df.head(n) #n=number of entries; default 5</pre>  |

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| Print last<br>few entries | Print the last<br>few entries<br>(default 5) of<br>the pandas<br>data frame | <pre>df.tail(n) #n=number of entries; default 5</pre> |
|---------------------------|---|---|
| Assign<br>header<br>names | Assign<br>appropriate<br>header<br>names to the<br>data frame               | df.columns = headers                                  |
| Replace "?" with NaN      | Replace the entries "?" with NaN entry from Numpy library                   | <pre>df = df.replace("?", np.nan)</pre>               |

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| Retrieve<br>data types                 | Retrieve the data types of the data frame columns  | df.dtypes  |
|--|--|--|
| Retrieve<br>statistical<br>description | Retrieve the statistical description of the data set. Defaults use is for only numerical data types. Use include="all" to create summary for all variables | <pre>df.describe() #default use df.describe(inc)</pre> |
| Retrieve<br>data set<br>summary        | Retrieve the summary of the data set being used, from the data frame   | <pre>df.info()</pre>                                   |

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|                        |   | <pre>df.to_csv(<output csv="" path="">)</output></pre> |
|------------------------|---|--|
| Save data frame to CSV | Save the processed data frame to a CSV file with a specified path |  |



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