

## PANDAS CHEATSHEET

*df* - A pandas Dataframe object

*pd* - alias of pandas

*s* - A pandas Series object

### Importing Data

<code>pd.read_csv(filename)</code>	From a CSV file
<code>pd.read_table(filename)</code>	From a delimited text file (like TSV)
<code>pd.read_excel(filename)</code>	From an Excel file
<code>pd.read_sql(query, connection_object)</code>	Reads from a SQL table/database
<code>pd.read_json(json_string)</code>	Reads from a JSON formatted string, URL or file.
<code>pd.read_html(url)</code>	Parses an html URL, string or file and extracts tables to a list of data frames.
<code>pd.read_clipboard()</code>	Takes the contents of your clipboard and passes it to <code>read_table()</code>
<code>pd.DataFrame(dict)</code>	From a dict, keys for columns names, values for data as lists.

### Exporting Data

<code>df.to_csv(filename)</code>	Write to a CSV file
<code>df.to_excel(filename)</code>	Writes to an Excel file
<code>df.to_sql(table_name, connection_object)</code>	Write to a SQL Table
<code>df.to_json(filename)</code>	Writes to a file in JSON Format.
<code>df.to_html(filename)</code>	Saves as an HTML table.

### Selecting Data

<code>df[col]</code>	Returns column with label col as Series
<code>df[[col1, col2]]</code>	Returns columns as a new dataframe

<b>s.iloc[0]</b>	Selection by position
<b>s.loc[0]</b>	Selection by index
<b>df.iloc[0, :]</b>	First row
<b>df.iloc[0, 0]</b>	First element of first column

<b>Statistics on Data</b>	
<b>df.describe()</b>	Summary statistics for numerical columns
<b>df.mean()</b>	Returns the mean of all columns
<b>df.corr()</b>	Returns the correlation between columns in a Data Frame
<b>df.count()</b>	Returns the number of non-null values in each Data Frame column
<b>df.max()</b>	Returns the highest value in each column
<b>df.min()</b>	Returns the lowest value in each column
<b>df.median()</b>	Returns the median of each column
<b>df.std()</b>	Returns the standard deviation of each column

<b>JOINS on Data</b>	
<b>df1.append(df2)</b>	Adds the rows in df1 to the end of df2
<b>pd.concat([df1, df2],axis=1)</b>	Adds the columns in df1 to the end of df2
<b>df1.join(df2,on=col1,how='inner')</b>	SQL-style joins the columns in df1 with the columns on df2 where the rows for col have identical values. “how” can be one of 'left', 'right', 'outer', 'inner'