



# pandas Dataframe Cheatsheet

A DataFrame is a two-dimensional (i.e., rows x columns) data structure. Pandas provides a number of functions to create and manipulate DataFrames.

Create a DataFrame	Result																		
<p><b>By importing a CSV file:</b></p> <pre>df = pd.read_csv("Report_Card.csv")</pre> <p><b>Using a pandas series:</b></p> <pre>classes = pd.Series(["Mathematics", "Chemistry", "Physics"]) grades = pd.Series([90, 54, 77]) pd.DataFrame({"Classes": classes, "Grades": grades})</pre>	<p><b>Classes</b></p> <pre>0 Mathematics 1 Chemistry 2 Physics</pre>																		
Slice a DataFrame	Result																		
<p><b>Get just the Math grade:</b></p> <pre>Grade = df.iloc[[0],[2,3]] Or Grade=df.loc[["Mathematics"],["Classes", "Grades"]]</pre>	<p><b>Classes</b></p> <pre>0 Mathematics</pre>																		
Delete a Column	Result																		
<pre>df.drop("Grades", axis=1, inplace=True) Or df.drop(3, axis=1, inplace=True)</pre>	<p><b>Classes</b></p> <pre>0 Mathematics 1 Chemistry 2 Physics</pre>																		
Delete a Row	Result																		
<pre>df.drop("Physics", axis=0, inplace=True) Or df.drop(2, axis=0, inplace=True)</pre>	<p><b>Classes</b></p> <pre>0 Mathematics 1 Chemistry</pre>																		
Access an Element	Result																		
<p><b>Using at:</b></p> <pre>df.loc[0].at["Grades"] or Using iat: df.loc[0].iat[2]</pre>	<pre>90</pre>																		
Append Rows	Result																		
<table border="1" style="display: inline-table; margin-right: 20px;"> <thead> <tr><th>Classes</th><th>Grades</th></tr> </thead> <tbody> <tr><td>Mathematics</td><td>90</td></tr> <tr><td>Chemistry</td><td>54</td></tr> </tbody> </table> <table border="1" style="display: inline-table; margin-right: 20px;"> <thead> <tr><th>Classes</th><th>Grades</th></tr> </thead> <tbody> <tr><td>0 Physics</td><td>77</td></tr> </tbody> </table> <pre>pd.concat([df1, df2])</pre>	Classes	Grades	Mathematics	90	Chemistry	54	Classes	Grades	0 Physics	77	<table border="1"> <thead> <tr><th>Classes</th><th>Grades</th></tr> </thead> <tbody> <tr><td>0 Mathematics</td><td>90</td></tr> <tr><td>1 Chemistry</td><td>54</td></tr> <tr><td>2 Physics</td><td>77</td></tr> </tbody> </table>	Classes	Grades	0 Mathematics	90	1 Chemistry	54	2 Physics	77
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<pre>df.rename(columns = {'Classes':'Subjects'})</pre>	<table border="1"> <thead> <tr><th>Classes</th><th>Grades</th></tr> </thead> <tbody> <tr><td>Mathematics</td><td>90</td></tr> <tr><td>Chemistry</td><td>54</td></tr> <tr><td>Physics</td><td>77</td></tr> </tbody> </table>	Classes	Grades	Mathematics	90	Chemistry	54	Physics	77										
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Replace Values	Result																		
<pre>df.replace([90, 54, 77], ['A', 'D', 'B'])</pre>	<table border="1"> <thead> <tr><th>Classes</th><th>Grades</th></tr> </thead> <tbody> <tr><td>Mathematics</td><td>A</td></tr> <tr><td>Chemistry</td><td>D</td></tr> <tr><td>Physics</td><td>B</td></tr> </tbody> </table>	Classes	Grades	Mathematics	A	Chemistry	D	Physics	B										
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