

Pandas Methods

| S.No | Function | Description |
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| 1 | <code>read_csv()</code> | Reads a comma-separated values (CSV) file into a DataFrame. |
| 2 | <code>columns</code> | It is an inbuilt variable that returns column names from the DataFrame. |
| 3 | <code>info()</code> | Displays a summary of the DataFrame including data types, non-null counts, and memory usage. |
| 4 | <code>head()</code> | Returns the top N rows from the DataFrame. (Default N=5). |
| 5 | <code>tail()</code> | Returns the bottom N rows from the DataFrame. (Default N=5). |
| 6 | <code>fillna()</code> | Fills the missing values (None, NaN) with a specified value or method. |
| 7 | <code>dropna()</code> | Removes rows or columns with missing values. (axis=0 for rows, axis=1 for columns). |
| 8 | <code>astype()</code> | Converts the data type of one or more columns. (A dictionary can be passed as an argument). |
| 9 | <code>drop()</code> | Removes specific rows or columns from the DataFrame. (Use index/columns or axis=0/axis=1). |
| 10 | <code>rename()</code> | Changes the names of rows or columns. (Use index/columns or axis=0/axis=1). |
| 11 | <code>replace()</code> | Replaces one or more old values by new values. (A dictionary can be passed as an argument). |
| 12 | <code>map()</code> | Replaces all old values with new values. (If not matched, replaces with NaN/None. A dictionary can be used). |
| 13 | <code>reset_index()</code> | Resets the index to the default integer index starting from zero. |
| 14 | <code>drop_duplicates()</code> | Returns a DataFrame with duplicate rows removed. |
| 15 | <code>describe()</code> | Provides summary statistics for numeric columns. |
| 16 | <code>duplicated()</code> | Returns a Boolean Series indicating duplicate rows. |
| 17 | <code>set_index()</code> | Sets a specific column as the DataFrame index. |
| 18 | <code>groupby()</code> | Groups data based on column values and allows aggregation. |
| 19 | <code>sort_index()</code> | Sorts the DataFrame by its index. |
| 20 | <code>sort_values()</code> | Sorts the DataFrame by the values in one or more columns. |
| 21 | <code>corr()</code> | Computes pairwise correlation of numeric columns. |

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| 22 | <code>isnull()</code> | Returns a Boolean DataFrame indicating missing values. |
| 23 | <code>nunique()</code> | Counts the number of unique values in a column. |
| 24 | <code>unique()</code> | Returns the unique values in a column. |
| 25 | <code>value_counts()</code> | Returns the count of each unique value in a column. |
| 26 | <code>read_excel()</code> | Reads an Excel file into a DataFrame. |
| 27 | <code>read_json()</code> | Reads a JSON file or string into a DataFrame. |
| 28 | <code>Series()</code> | Creates a one-dimensional labeled array. |
| 29 | <code>DataFrame()</code> | Creates a two-dimensional labeled data structure (table). |
| 30 | <code>to_datetime()</code> | Converts a column or value to datetime format. |
| 31 | <code>cut()</code> | Converts continuous data into bins(intervals). |
| 32 | <code>merge()</code> | Merges DataFrames using database-style join operations. |
| 33 | <code>concat()</code> | Concatenates pandas objects along a specified axis. |
| 34 | <code>pivot()</code> | Converts <i>long data</i> to <i>wide format</i> using unique values from one column to create new columns. (Rows become columns.) |
| 35 | <code>melt()</code> | Converts <i>wide data</i> to <i>long format</i> by unpivoting columns into rows. (Columns become rows). |
| 36 | <code>pivot_table()</code> | Creates a pivot table with aggregation |
| 37 | <code>count()</code> | Returns the number of non-missing values in each column or row. |
| 38 | <code>max()</code> | Returns the maximum value in each column or row. |
| 39 | <code>min()</code> | Returns the minimum value in each column or row. |
| 40 | <code>sum()</code> | Returns the sum of values for each column or row. |
| 41 | <code>mean()</code> | Returns the mean (average) of values in each column or row. |
| 42 | <code>idxmax()</code> | Returns the index of the first occurrence of the maximum value. |
| 43 | <code>idxmin()</code> | Returns the index of the first occurrence of the minimum value. |
| 44 | <code>agg()</code> | Applies one or more aggregation functions to a DataFrame or Series. |
| 45 | <code>to_csv()</code> | Converts the DataFrame to a CSV file. |
| 46 | <code>to_excel()</code> | Converts the DataFrame to an Excel file. |
| 47 | <code>to_json()</code> | Converts the DataFrame to a JSON file. |
| 48 | <code>apply()</code> | Applies a function to each row or column in a DataFrame or elements in a Series |
| 49 | <code>query()</code> | Filters rows from a DataFrame using a string expression (like SQL WHERE clause). |

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| df . info() df . head() df . tail() df . describe() df . duplicated() df . drop_duplicates() df . astype() df . fillna() df . dropna() df . drop() df . replace() df . rename() df . set_index() df . reset_index() df . sort_index() df . sort_values() df . corr() df . isnull() | Pd . read_csv() Pd . read_excel() Pd . read_json() Pd . Series() Pd . DataFrame () Pd . to_datetime() Pd . cut() Pd . merge() Pd . concat() Pd . pivot() Pd . melt() Pd . pivot_table() | count() max() min() sum() mean() std() var() percentile() idxmax() idxmin() agg() |
| | shape columns index values loc [] iloc [] | g = df . groupby() g . get_group() g . groups |
| | | Str . (built-in methods) |
| df . to_csv() df . to_excel () df . to_json () | df [col] . nunique() df [col] . unique() df [col] . value_counts () df [col] . map() | |