

PANDAS COMBINIGG & MERGING

Concept	Description	Example
merge()	Combines two DataFrames based on a common key.	pd.merge(df1, df2, on='key')
how Parameter	Specifies the type of join operation. Values: 'inner', 'outer', 'left', 'right'.	'inner': Common keys only 'outer': All keys 'left': Left keys only 'right': Right keys only
on Parameter	Specifies the column to join on.	on='key'
inner join	Returns only rows with matching keys from both DataFrames.	pd.merge(df1, df2, how='inner', on='key')
left join	Returns all rows from the left DataFrame, with matching keys from the right. Non-matching rows are filled with NaN.	pd.merge(df1, df2, how='left', on='key')
right join	Returns all rows from the right DataFrame, with matching keys from the left. Non-matching rows are filled with NaN.	pd.merge(df1, df2, how='right', on='key')
outer join	Returns all keys from both DataFrames. Non-matching rows are filled with NaN.	pd.merge(df1, df2, how='outer', on='key')
concat()	Stacks DataFrames either row-wise (axis=0) or column-wise (axis=1).	pd.concat([df1, df2]) (row-wise) pd.concat([df1, df2], axis=1) (column-wise)
axis Parameter	Determines whether to stack along rows (axis=0) or columns (axis=1).	axis=0: Stack rows axis=1: Stack columns