Questions on concat():

1. **Concatenating DataFrames Vertically:**
   * Create two DataFrames with similar columns (e.g., 'Name', 'Age', 'Team'), then
   * **Question:** Given two DataFrames df1 and df2 that contain player data (e.g., 'Name', 'Team', 'Age'), concatenate them row-wise (vertically).
2. **Concatenating DataFrames Horizontally:**
   * Create two DataFrames with different columns but the same index, and concatenate them side by side (axis=1).
   * **Question:** Concatenate two DataFrames df1 (with columns 'Name', 'Age') and df2 (with columns 'Height', 'Weight') horizontally (column-wise).
3. **Concatenating with ignore\_index:**
   * Concatenate two DataFrames and reset the index using ignore\_index=True.
   * **Question:** Concatenate two DataFrames vertically and reset the index of the result to be continuous without duplicates.
4. **Concatenating with Different Indexes:**
   * Concatenate two DataFrames that have non-overlapping indexes and observe the resulting DataFrame.
   * **Question:** Concatenate two DataFrames with different indexes and observe how pandas handles missing data. Use NaN to fill in any missing values.

**Questions on merge():**

1. **Merging Two DataFrames on a Common Column (Inner Join):**
   * Perform an inner join between two DataFrames on a common column.
   * **Question:** Merge two DataFrames df1 and df2 on the column 'Team' using an inner join, and display only the common records.
2. **Merging with an Outer Join:**
   * Perform an outer join between two DataFrames so that all data is retained.
   * **Question:** Merge df1 and df2 on 'Team' using an outer join, ensuring that even missing data is included.
3. **Merging with a Left Join:**
   * Merge two DataFrames using a left join so that all records from the left DataFrame are retained.
   * **Question:** Merge two DataFrames df1 and df2 on 'Team' using a left join and explain what happens to rows that don't have matching values in df2.
4. **Merging with a Right Join:**
   * Perform a right join to retain all records from the right DataFrame.
   * **Question:** Merge df1 and df2 on 'Team' using a right join and explain how pandas handles missing values for non-matching records.

**Questions on join():**

1. **Joining Two DataFrames on the Index:**
   * Use the join() method to combine two DataFrames based on their index.
   * **Question:** Join two DataFrames df1 and df2 on their indexes and explain how the join behaves when the indexes are non-overlapping.