About Data:

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1. Matches

- **Purpose**: Provides a high-level overview of cricket matches.
- **Key Features**:
    - Match details: Date, venue, teams, toss details, result, and winner.
    - Context: Includes fields for "Player of the Match," eliminator matches, and the method used to decide the winner in special cases.
- **Potential Uses**:
    - Analyze match outcomes.
    - Study toss impact or trends in neutral venues.
    - Identify player performance trends based on awards.
- **Columns:**
    - match_id (*integer*): A unique identifier for each match.
    - date (*date*): The date when the match occurred.
    - player_of_match (*string*): Name of the player who was awarded "Player of the Match."
    - venue_id (*integer*): A unique identifier for the venue where the match was held.
    - neutral_venue (*integer*): Indicates whether the match was played at a neutral venue (1 for yes, 0 for no).
    - team1 (*string*): Name of the first team.
    - team2 (*string*): Name of the second team.
    - toss_winner (*string*): Name of the team that won the toss.
    - toss_decision (*string*): Decision made by the toss-winning team, e.g., "bat" or "field."
    - winner (*string*): Name of the team that won the match.
    - result (*string*): Outcome of the match, e.g., "normal," "tie," or "no result."
    - result_margin (*string*): Margin by which the winning team won, e.g., runs or wickets.
    - eliminator (*string*): Indicates whether the match was an eliminator ("Y" or "N").
    - method (*string*): Method used to decide the winner if the match couldn't be completed normally (e.g., Duckworth-Lewis method).
    - umpire1 (*string*): Name of the first umpire officiating the match.
    - umpire2 (*string*): Name of the second umpire officiating the match

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2. Ball_by_ball

- **Purpose**: Captures detailed ball-by-ball actions for each match.
- **Key Features**:
    - Granular information: Batsman, bowler, runs scored, extra runs, and dismissals.
    - Event details: Types of dismissals, players dismissed, and fielders involved.
    - Team context: Batting and bowling team names.
- **Potential Uses**:
    - Compute advanced statistics like batting average, strike rate, economy rate, and partnership analysis.
    - Analyze specific events, such as wickets, boundaries, or extras.
    - Study team strategies (e.g., overs when runs or wickets peak).
- **Columns:**
    - match_id (*integer*): The unique identifier for the match, linking this dataset to the Matches table.
    - inning (*integer*): The inning number (1 or 2, and sometimes 3 or 4 for test matches or super overs).
    - overs (*integer*): The over number within the inning.
    - ball (*integer*): The ball number within the over.
    - batsman (*string*): Name of the batsman facing the delivery.
    - non_striker (*string*): Name of the non-striker (partner) batsman.
    - bowler (*string*): Name of the bowler delivering the ball.
    - batsman_runs (*integer*): Runs scored by the batsman on this delivery (excluding extras).
    - extra_runs (*integer*): Runs awarded as extras (e.g., wides, no-balls, leg byes).
    - total_runs (*integer*): Total runs scored on the delivery (sum of batsman_runs and extra_runs).
    - non_boundary (*integer*): Indicates whether the runs scored were not from a boundary (1 for yes, 0 for no).
    - is_wicket (*integer*): Indicates whether a wicket fell on this delivery (1 for yes, 0 for no).
    - dismissal_kind (*string*): The manner of dismissal (e.g., "bowled," "caught," "run out").
    - player_dismissed (*string*): Name of the player who was dismissed (if applicable).
    - fielder (*string*): Name of the fielder involved in the dismissal (if applicable).
    - extras_type (*string*): Type of extra run (e.g., "wide," "no ball," "bye").
    - batting_team (*string*): Name of the batting team.
    - bowling_team (*string*): Name of the bowling team.

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3. Venue

- **Purpose**: Contains information about match venues.
- **Key Features**:
  - Venue name, city, and unique ID for relational mapping with the **Matches** table.
- **Potential Uses**:
  - Location-based match performance analysis.
  - Study of home vs. neutral venue impact.
- **Columns:**
  - venue_id (*integer*): A unique identifier for each venue, which corresponds to the `venue_id` in the Matches table for relational mapping.
  - venue (*string*): The name of the venue (e.g., a stadium or ground).
  - city (*string*): The name of the city where the venue is located..

Relationships

- **Matches** ↔ **Venue**: Linked through `venue_id` for venue and city details of matches.
- **Matches** ↔ **Ball_by_ball**: Linked through `match_id` to analyze detailed match events.