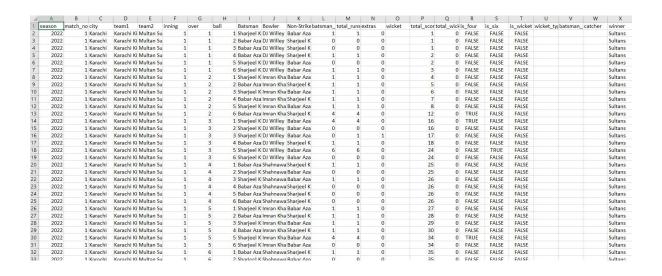
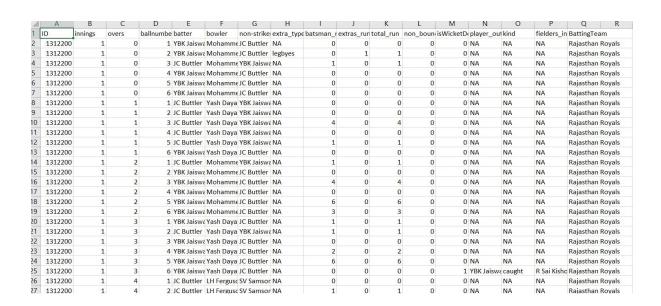
Databases

1. PSL (8263 Rows):



2.IPL (17913 Rows):



```
1 .
        use psl;
  2
  3 •
        select *, case when inning=1 then team1 else team2 end as battingteam,
        case when inning=1 then team2 else team1 end as bowlingteam
  4
  5
        from psl;
  6
  7 • ⊖ select * from (select match_no,city,
        case when inning=1 then team1 else team2 end as battingteam,
  9
        case when inning=1 then team2 else team1 end as bowlingteam,
 10
        inning,
        sum(total_runs) as score,
 11
        max(total_wickets) as wickets
 12
 13
        from
 14
        psl
 15
        group by match_no, city,inning, battingteam,bowlingteam)ww
 16
        j
17
       /*pp*/
18
19 •
       select match_no,city,
20
       case when inning=1 then team1 else team2 end as battingteam,
       case when inning=1 then team2 else team1 end as bowlingteam,
21
22
       inning,
       sum(total runs) as score,
23
24
       max(total_wickets) as wickets
       from
25
       psl
26
       where psl.over between 16 and 19
27
28
       group by match_no, city,inning, battingteam,bowlingteam
29
30
       ;
```

```
34 •
       select
       match no.
       case when inning=1 then team1 else team2 end as battingteam,
36
37
       case when inning=1 then team2 else team1 end as bowlingteam,
38
       bowler,
       round(sum((case when extras=0 then 1 else 0 end))/6) as overs,
39
       sum((case when extras=0 then 1 else 0 end)) as balls,
40
       sum(total_runs) as runs,
41
42
       sum(case when (is_wicket = 'True' and wicket_type <> 'run out') then 1 else 0 end) as wickets,
       sum(case when is four='True' then 1 else 0 end) as fours,
43
44
       sum(case when is six='True' then 1 else 0 end) as sixes,
45
       sum(case when total runs =0 then 1 else 0 end) as dots,
       sum(case when total_runs =1 then 1 else 0 end) as singles,
46
47
       sum(case when total_runs =2 then 1 else 0 end) as doubles,
       sum(case when total_runs =3 then 1 else 0 end) as threes,
48
49
       sum(case when extras=0 then 0 else extras end) as extrasextras,
       sum(case when wicket_type='caught' then 1 else 0 end) as caught,
50
51
       sum(case when wicket type='bowled' then 1 else 0 end) as bowled,
52
       sum(case when wicket_type='run out' then 1 else 0 end) as run_out,
       sum(case when wicket_type='lbw' then 1 else 0 end) as lbw,
53
       sum(case when wicket_type='stumped' then 1 else 0 end) as stumped
       from psl
55
       group by
56
       match_no, inning, bowler, battingteam, bowlingteam
57
58
       /*test*/
61
       select
62 •
63
       match_no,
       case when inning=1 then team1 else team2 end as battingteam,
64
65
       case when inning=1 then team2 else team1 end as bowlingteam,
66
       bowler.
67
       batsman,
       round(sum((case when extras=0 then 1 else 0 end))/6) as overs,
68
       sum((case when extras=0 then 1 else 0 end)) as balls,
69
70
       sum(total runs) as runs,
       sum(case when (is_wicket = 'True' and wicket_type <> 'run out') then 1 else 0 end) as wickets,
71
72
       sum(case when is four='True' then 1 else 0 end) as fours,
73
       sum(case when is six='True' then 1 else 0 end) as sixes,
74
       sum(case when total runs =0 then 1 else 0 end) as dots,
       sum(case when total_runs =1 then 1 else 0 end) as singles,
75
       sum(case when total_runs =2 then 1 else 0 end) as doubles,
76
77
       sum(case when total runs =3 then 1 else 0 end) as threes,
       sum(case when extras=0 then 0 else extras end) as extrasextras,
78
       sum(case when wicket type='caught' then 1 else 0 end) as caught,
80
       sum(case when wicket_type='bowled' then 1 else 0 end) as bowled,
81
       sum(case when wicket_type='run out' then 1 else 0 end) as run_out,
       sum(case when wicket_type='lbw' then 1 else 0 end) as lbw,
       sum(case when wicket_type='stumped' then 1 else 0 end) as stumped
83
       from psl
84
       group by match_no, inning, bowler,batsman, battingteam,bowlingteam;
```

```
88
       /*bowler against perticular batsman*/
89 •
       select
90
       bowler, batsman,
91
       count(case when extras = 0 then ball end) as balls,
92
       sum(total runs) as runs,
93
       sum(case when (is_wicket = 'True' and wicket_type <>'run out') then 1 else 0 end) as wickets,
       sum(case when is_four='True' then 1 else 0 end) as fours,
94
       sum(case when is six='True' then 1 else 0 end) as sixes,
95
       sum(case when total_runs =0 then 1 else 0 end) as dots,
96
       sum(case when total_runs =1 then 1 else 0 end) as singles,
97
       sum(case when total_runs =2 then 1 else 0 end) as doubles,
       sum(case when total_runs =3 then 1 else 0 end) as threes,
99
       sum(case when extras=0 then 0 else extras end) as extrasextras,
100
       sum(case when wicket type='caught' then 1 else 0 end) as caught,
       sum(case when wicket_type='bowled' then 1 else 0 end) as bowled,
102
103
       sum(case when wicket_type='run out' then 1 else 0 end) as run_out,
       sum(case when wicket_type='lbw' then 1 else 0 end) as lbw,
       sum(case when wicket_type='stumped' then 1 else 0 end) as stumped
105
       from psl
106
107
       group by bowler, batsman
       order by bowler
108
109
 112
          /*Next 4 balls runs, strike rate and wicket team added*/
 113 •
          select *,
 114
          lead(t) over(partition by match no, bowler) as foruns,
 115
          (lead(t) over(partition by match no, bowler))*100 as fosr,
 116
          lead(t) over(partition by match no, bowler) fo,
          lead(tw) over(partition by match no, bowler) fow
 117
 118
          from
 119
       ⊖ (select *,
 120
          lead(s) over(partition by match no, bowler) as truns,
 121
          (lead(s) over(partition by match_no, bowler))*100 as tsr,
 122
          lead(s) over(partition by match no, bowler) t,
          lead(sw) over(partition by match no, bowler) tw
 123
 124
          from
       ⊖ (select *,
 125
          lead(f) over(partition by match_no, bowler) as sruns,
 126
 127
          (lead(f) over(partition by match no, bowler))*100 as ssr,
          lead(f) over(partition by match no, bowler) s,
 128
          lead(fw) over(partition by match no, bowler) sw
 129
          from
 130
       ⊖ (select *,
 131
          lead(total runs) over(partition by match no, bowler) as fruns,
 132
 133
          (lead(total_runs) over(partition by match_no, bowler))*100 as fsr,
```

```
134
       lead(total_runs) over(partition by match_no, bowler) f,
       lead(is_wicket) over(partition by match_no, bowler) fw
135
136
        from
137
138
     (select *,
       row number() over(partition by match no, bowler order by psl.over, ball) as ballnum
         from
140
141
    (select match_no,inning,
142
        case when inning=1 then team1 else team2 end as battingteam,
       case when inning=1 then team2 else team1 end as bowlingteam,
143
144
        bowler, psl.over, ball, total runs, extras, is wicket
145
       from psl
146
       order by match no, inning, bowler, psl.over, ball)q1)q2)q3)q4)q5
147
       order by match_no,inning, bowler,q5.over,ball
148
151
         /*Next 4 balls runs, strike rate and wicket*/
152 •
         select *,
153
         lead(t) over(partition by match no, bowler) as foruns,
         (lead(t) over(partition by match no, bowler))*100 as fosr,
154
155
         lead(t) over(partition by match no, bowler) fo,
         lead(tw) over(partition by match no, bowler) fow
156
         from
157
158
      ⊖ (select *,
159
         lead(s) over(partition by match_no, bowler) as truns,
         (lead(s) over(partition by match no, bowler))*100 as tsr,
160
161
         lead(s) over(partition by match_no, bowler) t,
162
         lead(sw) over(partition by match no, bowler) tw
         from
163
164
      ⊕ (select *,
165
         lead(f) over(partition by match_no, bowler) as sruns,
166
         (lead(f) over(partition by match no, bowler))*100 as ssr,
167
         lead(f) over(partition by match no, bowler) s,
168
         lead(fw) over(partition by match_no, bowler) sw
         from
169
      ⊖ (select *,
170
         lead(total_runs) over(partition by match_no, bowler) as fruns,
171
         (lead(total_runs) over(partition by match_no, bowler))*100 as fsr,
172
```

```
lead(total runs) over(partition by match no, bowler) f,
173
174
       lead(is_wicket) over(partition by match_no, bowler) fw
       from
175
176
177
     (select *,
       row number() over(partition by match no, bowler order by psl.over, ball) as ballnum
178
179
     (select match no, bowler, psl.over, ball, total runs, extras, is wicket
180
181
        from psl
182
       order by match_no, bowler,psl.over,ball)q1)q2)q3)q4)q5
183
         /*previous 4 balls runs, strike rate and wicket*/
223
224 •
         select *,
225
         lag(t) over(partition by match no, bowler) as foruns,
226
         (lag(t) over(partition by match no, bowler))*100 as fosr,
227
         lag(t) over(partition by match no, bowler) fo,
         lag(tw) over(partition by match no, bowler) fow
228
229
         from
230
      ⊖ (select *,
231
         lag(s) over(partition by match no, bowler) as truns,
         (lag(s) over(partition by match_no, bowler))*100 as tsr,
232
         lag(s) over(partition by match no, bowler) t,
233
234
         lag(sw) over(partition by match_no, bowler) tw
235
        from
      ⊖ (select *,
236
         lag(f) over(partition by match no, bowler) as sruns,
237
         (lag(f) over(partition by match no, bowler))*100 as ssr,
238
239
         lag(f) over(partition by match_no, bowler) s,
         lag(fw) over(partition by match no, bowler) sw
240
241
         from
242

⊕ (select *,
243
         lag(total runs) over(partition by match no, bowler) as fruns,
244
         (lag(total runs) over(partition by match no, bowler))*100 as fsr,
         lag(total_runs) over(partition by match_no, bowler) f,
245
         lag(is wicket) over(partition by match no, bowler) fw
246
247
        from
248
     (select *,
249
       row number() over(partition by match no, bowler order by psl.over, ball) as ballnum
250
251
252
     (select match_no, bowler, psl.over, ball, total_runs,extras, is_wicket
253
       from psl
254
       order by match_no, bowler,psl.over,ball)q1)q2)q3)q4)q5
255
```

```
1 • (select m.id, m.city, m.matchNumber, m.team1, m.team2, m.venue,
 2
       m.winningTeam, i.innings,i.overs,i.ballnumber,i.batter,i.bowler, i.batsman_run,
       i.extras_run, i.total_run,i.iswicketdelivery, i.player_out, i.battingteam,
 3
 4
       case when m.team1=i.battingteam then team2 else team1 end as bowlingteam
       from m cross join i on m.id=i.id)
 5
 6
 7 .
       use psl;
 8
 9
       /*Each inning score*/
       select matchnumber, venue, battingteam, bowlingteam, winningteam,
10 .
11
       innings,
12
       sum(total_run) as score,
       sum(iswicketdelivery) as wickets,
13
       sum(extras_run) as extras
14
15
       from
16

⊖ (select m.id,m.city,m.matchNumber,m.team1,m.team2,m.venue,
       m.winningTeam, i.innings,i.overs,i.ballnumber,i.batter,i.bowler, i.batsman_run,
17
       i.extras_run, i.total_run,i.iswicketdelivery, i.player_out, i.battingteam,
18
19
       case when m.team1=i.battingteam then team2 else team1 end as bowlingteam
20
       from m cross join i on m.id=i.id)q1
21
       group by matchnumber, venue, innings, battingteam, bowlingteam, winningteam
22
 24
         /*pp*/
 25 0
         select matchnumber, venue, battingteam, bowlingteam, winningteam,
 26
         innings,
 27
         sum(total_run) as score,
         sum(iswicketdelivery) as wickets,
 28
         sum(extras_run) as extras
 29
         from
 30
 31

⊖ (select m.id,m.city,m.matchNumber,m.team1,m.team2,m.venue,
         m.winningTeam, i.innings,i.overs,i.ballnumber,i.batter,i.bowler, i.batsman_run,
 32
 33
         i.extras_run, i.total_run,i.iswicketdelivery, i.player_out, i.battingteam,
         case when m.team1=i.battingteam then team2 else team1 end as bowlingteam
 34
         from m cross join i on m.id=i.id
 35
        where i.overs between 16 and 19)q1
 36
         group by matchnumber, venue, innings, battingteam, bowlingteam, winningteam
 37
 38
         ;
```

```
/*Each inning bowling scorecard*/
41 •
       select *, wicket-run_out as wickets from
 42 ⊖ (select
        matchnumber, venue, city, bowlingteam, battingteam,
 44
       round(count( case when extra_type = 'NA' or extra_type = 'legbyes' or extra_type = 'byes' then ballnumber end)/6) as overs,
 45
 46
       count(ballnumber) as balls,
 47
        sum(total_run) as runs,
        sum(case when is_wicket = 1 then 1 else 0 end) as wicket,
 49
        sum(case when total_run=4 then 1 else 0 end) as fours,
       sum(case when total run=6 then 1 else 0 end) as sixes,
 50
       sum(case when total_run=0 then 1 else 0 end) as dots,
 52
        sum(case when total_run=1 then 1 else 0 end) as singles,
 53
        sum(case when total run=2 then 1 else 0 end) as doubles,
        sum(case when total_run=3 then 1 else 0 end) as threes,
 54
 55
        sum(extras run) as extras,
        sum(case when kind='caught' then 1 else 0 end) as caught,
 57
        sum(case when kind='bowled' then 1 else 0 end) as bowled,
        sum(case when kind='run out' then 1 else 0 end) as run out,
 58
 59
        sum(case when kind='lbw' then 1 else 0 end) as lbw,
       sum(case when kind='stumped' then 1 else 0 end) as stumped
 60
61
     (select m.id,m.city,m.matchNumber,m.team1,m.team2,m.venue,
62
        m.winningTeam, i.innings,i.overs,i.ballnumber,i.batter,i.bowler, i.batsman_run,
        i.extras_run,i.extra_type, i.total_run,i.iswicketdelivery as is_wicket,i.kind, i.player_out, i.battingteam,
64
        case when m.team1=i.battingteam then team2 else team1 end as bowlingteam
65
       from m cross join i on m.id=i.id)q1
66
67
       matchnumber, venue, city, innings, bowler, bowlingteam, battingteam)a1
69
        /*test*/
 73
 74 • select *, wicket-run_out as wickets from

    (select
 76
        matchnumber, venue, city, bowlingteam, battingteam,
 77
        bowler,
 78
       round(count( case when extra_type = 'NA' or extra_type = 'legbyes' or extra_type = 'byes' then ballnumber end)/6) as overs,
 79
       count(ballnumber) as balls,
 88
       sum(total_run) as runs,
 81
 82
       sum(case when is wicket = 1 then 1 else 0 end) as wicket,
 83
        sum(case when total run=4 then 1 else 0 end) as fours,
        sum(case when total_run=6 then 1 else 0 end) as sixes,
 84
        sum(case when total run=0 then 1 else 0 end) as dots,
 85
        sum(case when total_run=1 then 1 else 0 end) as singles,
 87
        sum(case when total_run=2 then 1 else 0 end) as doubles,
        sum(case when total run=3 then 1 else 0 end) as threes,
 88
        sum(extras_run) as extras,
        sum(case when kind='caught' then 1 else 0 end) as caught,
 90
        sum(case when kind='bowled' then 1 else 0 end) as bowled,
 91
        sum(case when kind='run out' then 1 else 0 end) as run_out,
 92
        sum(case when kind='lbw' then 1 else 0 end) as lbw,
93
        sum(case when kind='stumped' then 1 else 0 end) as stumped
94
95
     (select m.id, m.city, m.matchNumber, m.team1, m.team2, m.venue,
96
97
        m.winningTeam, i.innings,i.overs,i.ballnumber,i.batter,i.bowler, i.batsman_run,
98
        i.extras run,i.extra type, i.total run,i.iswicketdelivery as is wicket,i.kind, i.player out, i.battingteam,
        case when m.team1=i.battingteam then team2 else team1 end as bowlingteam
99
100
       from m cross join i on m.id=i.id)q1
101
        group by
102
        matchnumber, venue, city, innings, bowler, batter, bowlingteam, battingteam)a1
103
```

```
107
        /*Each inning bowling scorecard*/
108 •
       select *, wicket-run_out as wickets from
     (select
110
       bowler.
111
       batter.
        count(case when extras_run=0 then ballnumber end) as balls,
112
113
        sum(total_run) as runs,
        sum(case when is wicket = 1 then 1 else 0 end) as wicket,
114
115
        sum(case when total run=4 then 1 else 0 end) as fours,
116
        sum(case when total run=6 then 1 else 0 end) as sixes,
117
        sum(case when total run=0 then 1 else 0 end) as dots,
118
        sum(case when total_run=1 then 1 else 0 end) as singles,
        sum(case when total_run=2 then 1 else 0 end) as doubles,
119
120
        sum(case when total run=3 then 1 else 0 end) as threes,
        sum(extras_run) as extras,
121
122
        sum(case when kind='caught' then 1 else 0 end) as caught,
        sum(case when kind='bowled' then 1 else 0 end) as bowled,
        sum(case when kind='run out' then 1 else 0 end) as run out,
124
        sum(case when kind='lbw' then 1 else 0 end) as lbw,
125
        sum(case when kind='stumped' then 1 else 0 end) as stumped
126
127
       from
     (select m.id, m.city, m.matchNumber, m.team1, m.team2, m.venue,
128
        m.winningTeam, i.innings,i.overs,i.ballnumber,i.batter,i.bowler, i.batsman_run,
129
        i.extras_run, i.total_run,i.iswicketdelivery as is_wicket,i.kind, i.player_out, i.battingteam,
130
        case when m.team1=i.battingteam then team2 else team1 end as bowlingteam
131
132
        from m cross join i on m.id=i.id)q1
        group by bowler, batter
133
134
        order by bowler
135
       )a1
136
         /*Next 4 balls runs, strike rate and wicket of bowler*/
139
140 •
        select *,
        lead(t) over(partition by matchnumber, bowler) as foruns,
141
         (lead(t) over(partition by matchnumber, bowler))*100 as fosr,
142
         lead(t) over(partition by matchnumber, bowler) fo,
143
144
        lead(tw) over(partition by matchnumber, bowler) fow
145
     ⊖ (select *,
146
        lead(s) over(partition by matchnumber, bowler) as truns,
147
         (lead(s) over(partition by matchnumber, bowler))*100 as tsr,
148
        lead(s) over(partition by matchnumber, bowler) t,
149
150
         lead(sw) over(partition by matchnumber, bowler) tw
         from
151
     (select *,
152
153
        lead(f) over(partition by matchnumber, bowler) as sruns,
         (lead(f) over(partition by matchnumber, bowler))*100 as ssr,
154
         lead(f) over(partition by matchnumber, bowler) s,
155
        lead(fw) over(partition by matchnumber, bowler) sw
156
157
         from
158
     ⊖ (select *,
159
         lead(total_run) over(partition by matchnumber, bowler) as fruns,
         (lead(total_run) over(partition by matchnumber, bowler))*100 as fsr,
160
```

```
lead(total_run) over(partition by matchnumber, bowler) f,
161
       lead(is wicket) over(partition by matchnumber, bowler) fw
162
163
       from
164
    (select *,
165
       row number() over(partition by matchnumber, bowler order by overs, ballnumber) as ballnum
166
167
     (select matchnumber, bowler, overs, ballnumber, total run, extras run, is wicket
168
169
170 (select m.id,m.city,m.matchNumber,m.team1,m.team2,m.venue,
       m.winningTeam, i.innings,i.overs,i.ballnumber,i.batter,i.bowler, i.batsman_run,
171
       i.extras_run, i.total_run,i.iswicketdelivery as is_wicket,i.kind, i.player_out, i.battingteam,
172
       case when m.team1=i.battingteam then team2 else team1 end as bowlingteam
      from m cross join i on m.id=i.id)a1
174
176
       order by matchnumber, bowler, overs, ballnumber)q1)q2)q3)q4)q5
177
         /*Next 4 balls runs, strike rate and wicket in an inning*/
180
181 •
         select *,
182
         lead(t) over(partition by matchnumber, innings) as foruns,
183
         (lead(t) over(partition by matchnumber, innings))*100 as fosr,
         lead(t) over(partition by matchnumber, innings) fo,
184
         lead(tw) over(partition by matchnumber, innings) fow
185
         from
186
187
      ⊖ (select *,
188
         lead(s) over(partition by matchnumber, innings) as truns,
189
         (lead(s) over(partition by matchnumber, innings))*100 as tsr,
         lead(s) over(partition by matchnumber, innings) t,
190
         lead(sw) over(partition by matchnumber, innings) tw
191
192
         from
      (select *,
193
194
         lead(f) over(partition by matchnumber, innings) as sruns,
         (lead(f) over(partition by matchnumber, innings))*100 as ssr,
195
         lead(f) over(partition by matchnumber, innings) s,
196
         lead(fw) over(partition by matchnumber, innings) sw
197
198
         from
199
      lead(total run) over(partition by matchnumber, innings) as fruns,
200
         (lead(total run) over(partition by matchnumber, innings))*100 as fsr,
201
         lead(total_run) over(partition by matchnumber, innings) f,
202
```

```
lead(is wicket) over(partition by matchnumber, innings) fw
203
204
       from
205
     (select *,
206
       row_number() over(partition by matchnumber, innings order by overs, ballnumber) as ballnum
207
208
209
     (select matchnumber, battingteam, bowlingteam, venue, city innings, overs, ballnumber, total run, extras run, is wicket
210
211
     (select m.id.m.citv.m.matchNumber.m.team1.m.team2.m.venue.
212
       m.winningTeam, i.innings,i.overs,i.ballnumber,i.batter,i.bowler, i.batsman run,
       i.extras_run, i.total_run,i.iswicketdelivery as is_wicket,i.kind, i.player_out, i.battingteam,
       case when m.team1=i.battingteam then team2 else team1 end as bowlingteam
214
215
       from m cross join i on m.id=i.id)a1
216
217
      order by matchnumber, innings, overs, ballnumber)q1)q2)q3)q4)q5
218
221
          /*previous 4 balls runs, strike rate and wicket of bowler*/
 222 •
          select *.
 223
          lag(t) over(partition by matchnumber, bowler) as foruns,
          (lag(t) over(partition by matchnumber, bowler))*100 as fosr,
 224
          lag(t) over(partition by matchnumber, bowler) fo,
 225
          lag(tw) over(partition by matchnumber, bowler) fow
 226
 227
          from
 228
       ⊖ (select *,
          lag(s) over(partition by matchnumber, bowler) as truns,
 229
 230
          (lag(s) over(partition by matchnumber, bowler))*100 as tsr,
          lag(s) over(partition by matchnumber, bowler) t,
 231
          lag(sw) over(partition by matchnumber, bowler) tw
 232
 233
          from
 234
       ⊖ (select *,
          lag(f) over(partition by matchnumber, bowler) as sruns,
 235
 236
          (lag(f) over(partition by matchnumber, bowler))*100 as ssr,
          lag(f) over(partition by matchnumber, bowler) s,
 237
          lag(fw) over(partition by matchnumber, bowler) sw
 238
 239
          from
 240
       ⊖ (select *,
 241
          lag(total run) over(partition by matchnumber, bowler) as fruns,
          (lag(total_run) over(partition by matchnumber, bowler))*100 as fsr,
 242
 243
          lag(total run) over(partition by matchnumber, bowler) f,
         lag(is_wicket) over(partition by matchnumber, bowler) fw
244
245
       from
     (select *,
247
        row_number() over(partition by matchnumber, bowler order by overs, ballnumber) as ballnum
248
249
     (select matchnumber, bowler, overs, ballnumber, total_run,extras_run, is_wicket
251
     (select m.id,m.city,m.matchNumber,m.team1,m.team2,m.venue,
252
253
       m.winningTeam, i.innings,i.overs,i.ballnumber,i.batter,i.bowler, i.batsman_run,
       i.extras_run, i.total_run,i.iswicketdelivery as is_wicket,i.kind, i.player_out, i.battingteam,
       case when m.team1=i.battingteam then team2 else team1 end as bowlingteam
       from m cross join i on m.id=i.id)al
256
257
258
      order by matchnumber, bowler, overs, ballnumber)q1)q2)q3)q4)q5
259
```