

Run Rate Checker

Code

```
In [1]: import re #regex

In [2]: #custom function to find the remaining overs
def overs_left(total_overs,overs_left):
    no_of_balls_of_total_overs=(int(str(total_overs).split('.')[0])*6)+int(str(total_overs).split('.')[1])
    no_of_balls_of_overs_left=(int(str(overs_left).split('.')[0])*6)+int(str(overs_left).split('.')[1])
    remaining_balls_left=no_of_balls_of_total_overs-no_of_balls_of_overs_left
    remaining_overs_left=float(str(remaining_balls_left//6)+'.'+str(remaining_balls_left%6))
    return remaining_overs_left

In [3]: Team1=input('Enter the first batting team name : ')
Team2=input('Enter the second batting team name : ')

Enter the first batting team name : India
Enter the second batting team name : Pakistan

In [6]: first_innings=input('\nIs the first innings completed (Yes/No) : ')

try:
    if re.search('No',first_innings,re.IGNORECASE):
        Total_Overs=float(input('\nTotal number of overs : '))
        Overs_Played=float(input('Number of overs played till now : '))
        Runs_Scored=int(input('Runs scored till now : '))
        if Overs_Played<=Total_Overs:
            Current_Run_Rate=Runs_Scored/Overs_Played
            print('\n{}\s Current Run Rate : {}'.format(Team1,'%2f' % Current_Run_Rate))
            remaining_overs=overs_left(Total_Overs,Overs_Played)

            if ((Overs_Played / Total_Overs) * 100)>=20 and remaining_overs>=2:
                print('Projected Score at Current Run Rate ({}): {}'.format('%2f' % Current_Run_Rate,int(Runs_Scored+(Current_Run_Rate*remaining_overs))))
                print('Projected Score at {} rpo : {}'.format('%2f' % (int(Current_Run_Rate)+1),
                    int(Runs_Scored + ((int(Current_Run_Rate)+1) * remaining_overs))))
                print('Projected Score at {} rpo : {}'.format('%2f' % (int(Current_Run_Rate)+3),
                    int(Runs_Scored + ((int(Current_Run_Rate)+3) * remaining_overs))))
                print('Projected Score at {} rpo : {}'.format('%2f' % (int(Current_Run_Rate)+5),
                    int(Runs_Scored + ((int(Current_Run_Rate)+5) * remaining_overs))))
            else:
                print('Overs played is exceeding the total overs limit....Try Again')

        elif re.search('Yes',first_innings,re.IGNORECASE):
            target=int(input('What is the target for {} : '.format(Team2)))
            Total_Overs=float(input('Total number of overs : '))
            Required_Run_Rate=target/Total_Overs
            print('Required Run rate per over for {} : {}'.format(Team2,'%2f' % Required_Run_Rate))

            second_innings=input('Is the second innings started (Yes/No) : ')

            if re.search('Yes', second_innings, re.IGNORECASE):
                Overs_Played = float(input('Number of overs played till now : '))
                Runs_Scored = int(input('Runs scored till now : '))
                if Overs_Played <= Total_Overs:
                    Current_Run_Rate=Runs_Scored/Overs_Played
                    print('\n{}\s Current Run Rate : {}'.format(Team2, '%2f' % Current_Run_Rate))
                    remaining_overs = overs_left(Total_Overs, Overs_Played)
                    Required_Run_Rate = (target-Runs_Scored) / remaining_overs
                    print('Required Run rate per over for {} to chase the target : {}'.format(Team2, '%2f' % Required_Run_Rate))
                    print('Lets get this done')
                else:
                    print('Overs played is exceeding the total overs limit....Try Again')
            elif re.search('No', second_innings, re.IGNORECASE):
                print('\nLet the chase begin!!!')
            else:
                print('Invalid Input...Please Enter Either Yes/No')
        else:
            print('Invalid Input....Please Enter Either Yes/No')

except ValueError:
    print('\nPlease provide a valid value')

finally:
    print('\nProgram Ends...Bye!!!')
```

Outputs for 3 different Scenario

Scenario 1 : First Innings is not yet completed

```
Is the first innings completed (Yes/No) : No

Total number of overs : 50
Number of overs played till now : 34
Runs scored till now : 158

India's Current Run Rate : 4.65

Projected Score at Current Run Rate (4.65): 232
Projected Score at 5.00 rpo : 238
Projected Score at 7.00 rpo : 270
Projected Score at 9.00 rpo : 302

Program Ends...Bye!!!
```

Scenario 2 : First Innings is completed and Second innings is yet to Start

Is the first innings completed (Yes/No) : Yes
What is the target for Pakistan : 308
Total number of overs : 50
Required Run rate per over for Pakistan : 6.16

Is the second innings started (Yes/No) : No

Let the chase begin!!!

Program Ends...Bye!!!

Scenario 3 : First Innings is completed and Second Innings is going on

Is the first innings completed (Yes/No) : Yes
What is the target for Pakistan : 308
Total number of overs : 50
Required Run rate per over for Pakistan : 6.16

Is the second innings started (Yes/No) : Yes
Number of overs played till now : 19
Runs scored till now : 89

Pakistan's Current Run Rate : 4.68
Required Run rate per over for Pakistan to chase the target : 7.06

Lets get this done

Program Ends...Bye!!!