#### **IPL STATISTICS**

#### A MINI PROJECT REPORT

## Submitted by

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In partial fulfillment for the award of the degree of

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#### **BONAFIDE CERTIFICATE**

Certified that this project report "IPL STATISTICS" is the bonafide work of "SIBHINANDHAN ER(231501155), SHRIRAM N(231501154), SKANDHA TR(231501156)"

who carried out the project work under my supervision.

Submitted for the Practical Examination held on		
SIGNATURE	SIGNATURE	

**EXTERNAL EXAMINER** 

**INTERNAL EXAMINER** 

# **INDEX**

S.NO	TITLE OF THE PROJECT	PAGE NO
1	Project Synopsis	3
2	System	4
	requirements	•
3	Functions and	5
	Modules used	3
4	Use of	9
	technology	3
5	Code	11
6	Output	50
7	Bibliography	66

# **Project Synopsis**

## **Background:-**

IPL Statistics is an application which is used by the team management to view, sort statistics of players and teams to aid them in selecting a player for their team.

Sort and display modules are also included in this system which would keep track of a player's/team's performance in a particular field in a year of the league. With this computerized system there will be no wrong values entered which generally happens when a non-computerized system is used.

All these modules are able to help the team management to view player/team statistics with more convenience and in a more efficient way as compared to systems which are non-computerized.

## **SYSTEM REQUIREMENTS**

## **SYSTEM:**

OS- Window 10 Home Single Language

(19045.2364 OS Build)

Language: English

Processor: Intel(R) Core(TM) i3-4005U CPU

@ 1.70GHz 1.70 GHz

Memory: 8.00 GB RAM

## **SOFTWARE:**

MySQL Community server 8.0.29

Python IDLE version 3.10.4

# FUNCTIONS AND MODULES USED:

## **Functions:**

#### play():

Used to play the music if the start button is clicked.

#### pause():

Used to stop the sound if the pause button is clicked.

#### **AUC2019():**

Used to view and sort statistics of players in the 2019 IPL auction.

#### **AUC2020():**

Used to view and sort statistics of players in the 2020 IPL auction

#### **AUC2021():**

Used to view and sort statistics of players in the 2021 IPL auction.

#### MVP1():

Used to view and sort statistics of Most Valuable players in the 2019 edition of the IPL.

#### MVP2():

Used to view and sort statistics of Most Valuable players in the 2020 edition of the IPL.

#### MVP3():

Used to view and sort statistics of Most Valuable players in the 2021 edition of the IPL.

#### BT2019():

Used to view and sort statistics of Batsmen in the 2019 edition of the IPL.

#### BT2020():

Used to view and sort statistics of Batsmen in the 2020 edition of the IPL.

#### BT2021():

Used to view and sort statistics of Batsmen in the 2021 edition of the IPL.

#### **BO2019()**:

Used to view and sort statistics of Bowlers in the 2019 edition of the IPL.

#### **BO2020()**:

Used to view and sort statistics of Bowlers in the 2020 edition of the IPL.

#### **BO2021()**:

Used to view and sort statistics of Bowlers in the 2021 edition of the IPL.

#### PT2019():

Used to view the points table of the 2019 edition of the IPL.

#### PT2020():

Used to view the points table of the 2020 edition of the IPL.

#### PT2021():

Used to view the points table of the 2021 edition of the IPL.

## **Modules:-**

#### Import mysql.connector:

By importing this package, we are establish a connection between python and MySql.

#### import sys:

By importing this package, The sys module in Python provides various functions and variables that are used to manipulate different parts of the Python runtime environment. It allows operating on the interpreter as it provides access to the variables and functions that interact strongly with the interpreter.

#### import os:

The functions OS module provides allows us to operate on underlying Operating System tasks, irrespective of it being a Windows Platform, Macintosh or Linux.

#### **import PIL:**

The Python Imaging Library adds image processing capabilities to your Python interpreter.

#### import PIL.Image:

The Image module provides a class with the same name which is used to represent a PIL image.

#### import pygame:

pygame is a Python wrapper for the SDL library, which stands for Simple DirectMedia Layer. SDL provides cross-platform access to your system's underlying multimedia hardware components, such as sound, video, mouse, keyboard, and joystick.

#### import tkinter:

Tkinter is the inbuilt python module that is used to create GUI applications.

# **Use of Technology**

#### MySQL:

MySQL is a relational DBMS that can run virtually all platforms, including Linux, Unix and Windows. MySQL is a freely available open source RDBMS that uses Structured Query Language (SQL). It is fast, reliable, scalable alternative to many of the commercial RDBMs available today. It provides you with a rich set of features that support a secure environment for storing, maintaining, and accessing data. MySQL was created and supported by MySQL AB, a company based in Sweden. SQL provides many different types of commands used for different purposes. SQL commands can be divided into following categories:

- i. Data Definition Language (DDL)
- ii. Data Manipulation Language (DML)
- iii. Transaction Control Language (TCL)
- iv. Session Control Commands
- v. System Control Commands Page

#### **Python:**

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. It is high-level built in data structures, combined with dynamic typing and dynamic binding which make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse. Often, programmers fall in love with Python because of the increased productivity it provides. Debugging Python programs is easy: a bug or bad input will never cause a segmentation fault. Instead, when the interpreter discovers an error, it raises an exception. A source level debugger allows inspection of local and global variables, evaluation of arbitrary expressions, setting breakpoints, stepping through the code a line at a time, and so on. The debugger is written in Python itself, testifying to Python's introspective power. On the other hand, often the quickest way to debug a program is to add a few print statements to the source: the fast edit-test-debug cycle makes this simple approach very effective.

# Code:

#### Main prg code:

```
import tkinter as tk
import sys
import os
sys.path.append(os.path.abspath(r"C:\Users\vsais\IPL\AUCTION"))
sys.path.append(os.path.abspath(r"C:\Users\vsais\IPL\MVP"))
sys.path.append(os.path.abspath(r"C:\Users\vsais\IPL\LOGO"))
sys.path.append(os.path.abspath(r"C:\Users\vsais\IPL\PLAYER PERFORMANCE"))
sys.path.append(os.path.abspath(r"C:\Users\vsais\IPL\POINTS TABLE"))
from PPTW import *
from PTTW import *
from PTWW import *
from MVP19 import *
from MVP20 import *
from MVP21 import *
from PIL import Image, ImageTk
from BAT2020 import *
from BAT2019 import *
from BAT2021 import *
from BOWL2019 import *
from BOWL2020 import *
from BOWL2021 import *
from AUCTION19 import *
from AUCTION20 import *
from AUCTION21 import *
from AUCUNSOLD19 import *
from AUCUNSOLD20 import *
from AUCUNSOLD21 import *
```

```
import PIL.Image
import pygame
root=Tk()
I = Label(root)
I.pack()
root.geometry('750x750')
root.title("IPL STATISTICS")
root.attributes('-fullscreen', True)
pygame.mixer.init()
def play():
  pygame.mixer.music.load(r'C:\Users\vsais\IPL\Music\BGM.mp3')
  pygame.mixer.music.play(loops=-1)
def pause():
 pygame.mixer.music.pause()
def PP19():
 top= Toplevel(root)
 top.geometry("750x500")
 C=Label(top,text='DO YOU WANT TO CHECK:',font=('bold',16),anchor=CENTER)
 C.place(x=100,y=0)
 Button(top,text= "Batting Stats", command=BT2019).pack(pady= 5)
 button= Button(top, text="Bowling Stats", command=BO2019)
 button.pack(pady=5)
def PP20():
 top= Toplevel(root)
 top.geometry("750x500")
 C=Label(top,text='DO YOU WANT TO CHECK:',font=('bold',16),anchor=CENTER)
 C.place(x=100,y=0)
 Button(top,text= "Batting Stats", command=BT2020).pack(pady= 5)
```

```
button= Button(top, text="Bowling Stats", command=BO2020)
 button.pack(pady=5)
def PP21():
 top=Toplevel(root)
 top.geometry("750x500")
 C=Label(top,text='DO YOU WANT TO CHECK:',font=('bold',16),anchor=CENTER)
 C.place(x=100,y=0)
 Button(top,text= "Batting Stats", command=BT2021).pack(pady= 5)
 button= Button(top, text="Bowling Stats", command=BO2021)
 button.pack(pady=5)
def A21():
 top= Toplevel(root)
 top.geometry("750x500")
 C=Label(top,text='DO YOU WANT TO CHECK:',font=('bold',16),anchor=CENTER)
 C.place(x=100,y=0)
 Button(top,text= "Sold Players", command=AUC2021).pack(pady= 5)
 button= Button(top, text="Unsold Players", command=AUCUN2021)
 button.pack(pady=5)
def A20():
 top= Toplevel(root)
 top.geometry("750x500")
 C=Label(top,text='DO YOU WANT TO CHECK:',font=('bold',16),anchor=CENTER)
 C.place(x=100,y=0)
 Button(top,text= "Sold Players", command=AUC2020).pack(pady= 5)
```

```
button= Button(top, text="Unsold Players", command=AUCUN2020)
         button.pack(pady=5)
       def A19():
         top= Toplevel(root)
         top.geometry("750x500")
         C=Label(top,text='DO YOU WANT TO CHECK:',font=('bold',16),anchor=CENTER)
         C.place(x=100,y=0)
         Button(top,text= "Sold Players", command=AUC2019).pack(pady= 5)
         button= Button(top, text="Unsold Players", command=AUCUN2019)
         button.pack(pady=5)
       MVP=Label(root,text='MVP(Most Valuable
Player)',font=('bold',10),bg="yellow",anchor=CENTER)
       MVP.place(x=335,y=300)
       PT=Label(root,text='Points Table',font=('bold',10),bg="yellow",anchor=CENTER)
       PT.place(x=600,y=300)
       CS=Label(root,text='Player Stats',font=('bold',10),bg="yellow",anchor=CENTER)
       CS.place(x=800,y=300)
       CSS=Label(root,text='Auction Data',font=('bold',10),bg="yellow",anchor=CENTER)
       CSS.place(x=1000,y=300)
       MVPOne=Button(root,text="2019",font=("italic",12),bg="light blue", command=MVP1)
       MVPOne.place(x=390,y=400)
       MVPTwo=Button(root,text="2020",font=("italic",12),bg="light blue", command=MVP2)
       MVPTwo.place(x=390,y=500)
       MVPTwo=Button(root,text="2021",font=("italic",12),bg="light blue", command=MVP3)
       MVPTwo.place(x=390,y=600)
       PTOne=Button(root,text="2019",font=("italic",12),bg="light blue", command=PT2019)
```

```
PTOne.place(x=610,y=400)
PTTwo=Button(root,text="2020",font=("italic",12),bg="light blue", command=PT2020)
PTTwo.place(x=610,y=500)
PTThree=Button(root,text="2021",font=("italic",12),bg="light blue", command=PT2021)
PTThree.place(x=610,y=600)
PSOne=Button(root,text="2019",font=("italic",12),bg="light blue", command=PP19)
PSOne.place(x=810,y=400)
PSOne=Button(root,text="2020",font=("italic",12),bg="light blue", command=PP20)
PSOne.place(x=810,y=500)
PSOne=Button(root,text="2021",font=("italic",12),bg="light blue", command=PP21)
PSOne.place(x=810,y=600)
AucOne=Button(root,text="2019",font=("italic",12),bg="light blue", command=A19)
AucOne.place(x=1010,y=400)
AucTwo=Button(root,text="2020",font=("italic",12),bg="light blue", command=A20)
AucTwo.place(x=1010,y=500)
AucThree=Button(root,text="2021",font=("italic",12),bg="light blue", command=A21)
AucThree.place(x=1010,y=600)
songpl=Button(root,text="Play Music",font=("italic",12),bg="light blue", command=play)
songpl.place(x=610,y=800)
songpa=Button(root,text="Pause Music",font=("italic",12),bg="light blue", command=pause)
songpa.place(x=810,y=800)
def close():
   root.destroy()
   pygame.mixer.music.stop()
exit button = Button(root, text="Exit",bg="red", command=close)
exit button.pack(pady=10)
i=PIL.Image.open(r"C:\Users\vsais\IPL\LOGO\logo.png")
r=i.resize((350,205),PIL.Image.Resampling.LANCZOS)
s=ImageTk.PhotoImage(r)
img=Label(root, image=s)
img.place(x=600, y=60)
```

#### i) 2019 Auction(Sold Players):

```
from tkinter import *
import tkinter as tk
from tkinter import ttk
import mysql.connector as pro
e="
def AUC2019():
  def update(rows):
      tree.delete(*tree.get_children())
      for i in rows:
        tree.insert(",'end',values=i)
  def default():
      global e
      e=''
      ab=Ent.get()
      cur.execute("SELECT * from auction2019")
      rows=cur.fetchall()
      update(rows)
  def bowl():
      ab=Ent.get()
      cur.execute("SELECT * from auction2019 where Player LIKE '%"+ab+"%' and
Type LIKE '%Bowl%' and Team LIKE '%"+e+"%' ")
      rows=cur.fetchall()
      update(rows)
  def bat():
      ab=Ent.get()
      cur.execute("SELECT * from auction2019 where Player LIKE '%"+ab+"%' and
Type LIKE '%Bat%' and Team LIKE '%"+e+"%' ")
      rows=cur.fetchall()
      update(rows)
  def allr():
      ab=Ent.get()
      cur.execute("SELECT * from auction2019 where Player LIKE '%"+ab+"%' and
Type LIKE '%All%' and Team LIKE '%"+e+"%'")
      rows=cur.fetchall()
      update(rows)
  def wk():
      ab=Ent.get()
      cur.execute("SELECT * from auction2019 where Player LIKE '%"+ab+"%' and
Type LIKE '%Keep%' and Team LIKE '%"+e+"%'")
      rows=cur.fetchall()
      update(rows)
  def price():
      ab=Ent.get()
```

```
cur.execute("SELECT * from auction2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' order by length(Price) desc,Price desc;")
      rows=cur.fetchall()
      update(rows)
  def player():
      ab=Ent.get()
      cur.execute("SELECT * from auction2019 where Player LIKE '%"+ab+"%"")
      player1()
  def player1():
      rows=cur.fetchall()
      c=cur.rowcount
      if c==1:
        k=0
        co=[["Player","Team","Type","Price"]]
        op=Tk()
        w=LabelFrame(op,text="Single player stats")
        w.pack(fill="both",expand="yes",padx=20,pady=10)
        ree = ttk.Treeview(w, column=("Attributes", "Stats"), show='headings',
height=4)
        ree.pack()
        ree.column("# 1", anchor=CENTER)
        ree.heading("# 1", text="Attributes")
        ree.column("# 2", anchor=CENTER)
        ree.heading("# 2", text="Stats")
        for i in rows:
           while k < = 3:
             co.append(i)
             co[1]=list(co[1])
             ree.insert(",'end',values=(co[0][k],co[1][k]))
             k+=1
        def close():
           op.destroy()
        exit_button = Button(op, text="Exit", command=close)
        exit_button.pack(pady=20)
      else:
        update(rows)
  def CSK():
      global e
      e='Chennai Super Kings'
      ab=Ent.get()
      cur.execute("SELECT * from auction2019 where Team LIKE '%Chennai%'")
      rows=cur.fetchall()
      update(rows)
  def MI():
      global e
      e='Mumbai Indians'
```

```
ab=Ent.get()
    cur.execute("SELECT * from auction2019 where Team LIKE '%Mumbai%'")
    rows=cur.fetchall()
    update(rows)
def DC():
    global e
    e='Delhi Capitals'
    ab=Ent.get()
    cur.execute("SELECT * from auction2019 where Team LIKE '%Delhi%'")
    rows=cur.fetchall()
    update(rows)
def KKR():
    global e
    e='Kolkata Knight Riders'
    ab=Ent.get()
    cur.execute("SELECT * from auction2019 where Team LIKE '%Kolkata%'")
    rows=cur.fetchall()
    update(rows)
def KXIP():
    global e
    e='Kings XI Punjab'
    ab=Ent.get()
    cur.execute("SELECT * from auction2019 where Team LIKE '%Punjab%'")
    rows=cur.fetchall()
    update(rows)
def RR():
    global e
    e='Rajasthan Royals'
    ab=Ent.get()
    cur.execute("SELECT * from auction2019 where Team LIKE '%Rajasthan%'")
    rows=cur.fetchall()
    update(rows)
def RCB():
    global e
    e='Royal Challengers Bangalore'
    ab=Ent.get()
    cur.execute("SELECT * from auction2019 where Team LIKE '%Bangalore%'")
    rows=cur.fetchall()
    update(rows)
def SRH():
    global e
    e='Sunrisers Hyderabad'
    ab=Ent.get()
    cur.execute("SELECT * from auction2019 where Team LIKE '%Hyderabad%'")
    rows=cur.fetchall()
    update(rows)
```

```
con=pro.connect(host='localhost',user='root',passwd='VSS@07',database='ipl')
  cur=con.cursor()
  ws=Tk()
  b=StringVar()
  ws.geometry("700x350")
  style = ttk.Style()
  style.theme_use('clam')
  w1=LabelFrame(ws,text="Sold Players")
  w2=LabelFrame(ws,text="Search Player")
  w3=LabelFrame(ws,text="Sort Team")
  w1.pack(fill="both",expand="yes",padx=20,pady=10)
  w2.pack(fill="both",expand="yes",padx=20,pady=10)
  w3.pack(fill="both",expand="yes",padx=20,pady=10)
  tree = ttk.Treeview(w1, column=("Player", "Team", "Type", "Price"),
show='headings', height=30)
  tree.pack()
  tree.column("# 1", anchor=CENTER)
  tree.heading("# 1", text="Player")
  tree.column("# 2", anchor=CENTER)
  tree.heading("# 2", text="Team")
  tree.column("# 3", anchor=CENTER)
  tree.heading("# 3", text="Type")
  tree.column("# 4", anchor=CENTER)
  tree.heading("# 4", text="Price")
  cur=con.cursor()
  cur.execute("select * from auction2019")
  rows=cur.fetchall()
  update(rows)
  Lab=Label(w2,text="Search")
  Lab.pack(side=tk.LEFT,padx=10)
  Ent=Entry(w2,textvariable=b)
  Ent.pack(side=tk.LEFT,padx=6)
  bt=Button(w2,text="Search Player",command=player)
  bt.pack(side=tk.LEFT,padx=6)
  bt=Button(w2,text="Default",command=default)
  bt.pack(side=tk.LEFT,padx=10)
  bt=Button(w2,text="Sort by Bowlers",command=bowl)
  bt.pack(side=tk.LEFT,padx=6)
  bt=Button(w2,text="Sort by Batsmen",command=bat)
  bt.pack(side=tk.LEFT,padx=6)
  bt=Button(w2,text="Sort by All-Rounders",command=allr)
  bt.pack(side=tk.LEFT,padx=6)
  bt=Button(w2,text="Sort by Wicket Keepers",command=wk)
  bt.pack(side=tk.LEFT,padx=6)
  bt=Button(w2,text="Sort by Price",command=price)
  bt.pack(side=tk.LEFT,padx=6)
```

```
but=Button(w3,text="Default",command=default)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Chennai Super Kings",command=CSK)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Mumbai Indians",command=MI)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Delhi Capitals",command=DC)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Kolkata Knight Riders",command=KKR)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Kings XI Punjab",command=KXIP)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Rajasthan Royals",command=RR)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Royal Challengers Bangalore",command=RCB)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Sunrisers Hyderabad",command=SRH)
but.pack(side=tk.LEFT,padx=6)
ws.attributes('-fullscreen', True)
def close():
ws.destroy()
exit_button = Button(ws, text="Exit", command=close)
exit_button.pack(pady=20)
ws.mainloop()
```

#### <u>ii)</u> 2019 Auction(Unsold Players):

```
from tkinter import *
               import tkinter as tk
               from tkinter import ttk
               import mysql.connector as pro
               def AUCUN2019():
                   def update(rows):
                      tree.delete(*tree.get_children())
                         for i in rows:
                            tree.insert(",'end',values=i)
               def default():
                   ab=Ent.get()
                   cur.execute("SELECT * from aucunsold2019")
                   rows=cur.fetchall()
                   update(rows)
               def bowl():
                    ab=Ent.get()
                    cur.execute("SELECT * from aucunsold2019 where Player LIKE '%"+ab+"%' and
Type LIKE '%Bowl%' ")
                    rows=cur.fetchall()
                    update(rows)
```

```
def bat():
                   ab=Ent.get()
                   cur.execute("SELECT * from aucunsold2019 where Player LIKE '%"+ab+"%' and
Type LIKE '%Bat%' ")
                   rows=cur.fetchall()
                   update(rows)
               def allr():
                   ab=Ent.get()
                   cur.execute("SELECT * from aucunsold2019 where Player LIKE '%"+ab+"%' and
Type LIKE '%AII%'")
                   rows=cur.fetchall()
                   update(rows)
               def wk():
                   ab=Ent.get()
                   cur.execute("SELECT * from aucunsold2019 where Player LIKE '%"+ab+"%' and
Type LIKE '%Keep%'")
                   rows=cur.fetchall()
                   update(rows)
               def price():
                   ab=Ent.get()
                   cur.execute("SELECT * from aucunsold2019 where Player LIKE '%"+ab+"%' order
by length(Price) desc,Price desc")
                   rows=cur.fetchall()
                   update(rows)
               def player():
                   ab=Ent.get()
                   cur.execute("SELECT * from aucunsold2019 where Player LIKE '%"+ab+"%")
                   player1()
               def player1():
                   rows=cur.fetchall()
                   c=cur.rowcount
                   if c==1:
                     k=0
                     co=[["Player","Type","Base Price"]]
                     op=Tk()
                     w=LabelFrame(op,text="Single player stats")
                     w.pack(fill="both",expand="yes",padx=20,pady=10)
                     ree = ttk.Treeview(w, column=("Attributes", "Stats"), show='headings',
height=3)
                     ree.pack()
                     ree.column("# 1", anchor=CENTER)
                     ree.heading("# 1", text="Attributes")
                     ree.column("# 2", anchor=CENTER)
                     ree.heading("# 2", text="Stats")
```

```
while k<=2:
                        co.append(i)
                        co[1]=list(co[1])
                        ree.insert(",'end',values=(co[0][k],co[1][k]))
                        k+=1
                     def close():
                      op.destroy()
                      exit_button = Button(op, text="Exit", command=close)
                      exit_button.pack(pady=20)
                  else:
                     update(rows)
               con=pro.connect(host='localhost',user='root',passwd='VSS@07',database='ipl')
               cur=con.cursor()
               ws=Tk()
               b=StringVar()
               ws.geometry("700x350")
               style = ttk.Style()
               style.theme_use('clam')
               w1=LabelFrame(ws,text="Unsold Players")
               w2=LabelFrame(ws,text="Search Player")
               w1.pack(fill="both",expand="yes",padx=20,pady=10)
               w2.pack(fill="both",expand="yes",padx=20,pady=10)
               tree = ttk.Treeview(w1, column=("Player", "Type", "Base Price"), show='headings',
height=30)
               tree.pack()
               tree.column("# 1", anchor=CENTER)
               tree.heading("# 1", text="Player")
               tree.column("# 2", anchor=CENTER)
               tree.heading("# 2", text="Type")
               tree.column("# 3", anchor=CENTER)
               tree.heading("# 3", text="Base Price")
               cur=con.cursor()
               cur.execute("select * from aucunsold2019")
               rows=cur.fetchall()
               update(rows)
```

for i in rows:

```
Lab=Label(w2,text="Search")
Lab.pack(side=tk.LEFT,padx=10)
Ent=Entry(w2,textvariable=b)
Ent.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Search Player",command=player)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Default",command=default)
bt.pack(side=tk.LEFT,padx=10)
bt=Button(w2,text="Sort by Bowlers",command=bowl)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Batsmen",command=bat)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by All-Rounders",command=allr)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Wicket Keepers",command=wk)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Base Price",command=price)
bt.pack(side=tk.LEFT,padx=6)
ws.attributes('-fullscreen', True)
def close():
  ws.destroy()
exit_button = Button(ws, text="Exit", command=close)
exit_button.pack(pady=20)
ws.mainloop()
```

#### iii) 2019 MVP:

```
from tkinter import *
import tkinter as tk
from tkinter import ttk
import mysql.connector as pro
e="
def MVP1():
    def update(rows):
        tree.delete(*tree.get_children())
```

```
for i in rows:
        tree.insert(",'end',values=i)
  def default():
      global e
      e="
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019")
      rows=cur.fetchall()
      update(rows)
  def sixes():
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by 6s DESC")
      rows=cur.fetchall()
      update(rows)
  def fours():
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by 4s DESC")
      rows=cur.fetchall()
      update(rows)
  def wickets():
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by wickets DESC")
      rows=cur.fetchall()
      update(rows)
  def dot():
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by DotBalls DESC")
      rows=cur.fetchall()
      update(rows)
  def player():
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Player LIKE '%"+ab+"%"")
      player1()
  def player1():
      rows=cur.fetchall()
      c=cur.rowcount
      if c==1:
        co=[["Position", "Player", "Team", "Matches", "Wickets", "Dot
Balls", "Fours", "Sixes", "Catches", "Stumpings", "Run Outs", "Points"]]
        op=Tk()
        w=LabelFrame(op,text="Single player stats")
        w.pack(fill="both",expand="yes",padx=20,pady=10)
```

```
ree = ttk.Treeview(w, column=("Attributes", "Stats"), show='headings',
height=12)
        ree.pack()
        ree.column("# 1", anchor=CENTER)
        ree.heading("# 1", text="Attributes")
        ree.column("# 2", anchor=CENTER)
        ree.heading("# 2", text="Stats")
        for i in rows:
          while k<=11:
             co.append(i)
             co[1]=list(co[1])
             ree.insert(",'end',values=(co[0][k],co[1][k]))
             k+=1
        def close():
          op.destroy()
        exit_button = Button(op, text="Exit", command=close)
        exit_button.pack(pady=20)
      else:
        update(rows)
  def CSK():
      global e
      e='Chennai Super Kings'
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Team LIKE '%Chennai%'")
      rows=cur.fetchall()
      update(rows)
  def MI():
      global e
      e='Mumbai Indians'
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Team LIKE '%Mumbai%'")
      rows=cur.fetchall()
      update(rows)
  def DC():
      global e
      e='Delhi Capitals'
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Team LIKE '%Delhi%'")
      rows=cur.fetchall()
      update(rows)
  def KKR():
      global e
      e='Kolkata Knight Riders'
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Team LIKE '%Kolkata%'")
      rows=cur.fetchall()
      update(rows)
  def KXIP():
```

```
global e
      e='Kings XI Punjab'
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Team LIKE '%Punjab%'")
      rows=cur.fetchall()
      update(rows)
  def RR():
      global e
      e='Rajasthan Royals'
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Team LIKE '%Rajasthan%'")
      rows=cur.fetchall()
      update(rows)
  def RCB():
      global e
      e='Royal Challengers Bangalore'
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Team LIKE '%Bangalore%'")
      rows=cur.fetchall()
      update(rows)
  def SRH():
      global e
      e='Sunrisers Hyderabad'
      ab=Ent.get()
      cur.execute("SELECT * from mvp2019 where Team LIKE '%Hyderabad%'")
      rows=cur.fetchall()
      update(rows)
 con=pro.connect(host='localhost',user='root',passwd='VSS@07',database='ipl')
 cur=con.cursor()
  ws=Tk()
  b=StringVar()
  ws.geometry("700x350")
  style = ttk.Style()
  style.theme_use('clam')
  w1=LabelFrame(ws,text="Most Valuble Player")
  w2=LabelFrame(ws,text="Search Player")
  w3=LabelFrame(ws,text="Sort Team")
  w1.pack(fill="both",expand="yes",padx=20,pady=10)
  w2.pack(fill="both",expand="yes",padx=20,pady=10)
  w3.pack(fill="both",expand="yes",padx=20,pady=10)
  tree = ttk.Treeview(w1, column=( "Position",
"Player", "Team", "Matches", "Wickets", "Dot
Balls", "Fours", "Sixes", "Catches", "Stumpings", "Run Outs", "Points"), show='headings',
height=30)
  tree.pack()
  tree.column("# 1", anchor=CENTER)
  tree.heading("# 1", text="Position")
```

```
tree.column("# 2", anchor=CENTER)
tree.heading("# 2", text="Player")
tree.column("# 3", anchor=CENTER)
tree.heading("# 3", text="Team")
tree.column("# 4", anchor=CENTER)
tree.heading("# 4", text="Matches")
tree.column("# 5", anchor=CENTER)
tree.heading("# 5", text="Wickets")
tree.column("# 6", anchor=CENTER)
tree.heading("# 6", text="Dot Balls")
tree.column("# 7", anchor=CENTER)
tree.heading("# 7", text="Fours")
tree.column("#8", anchor=CENTER)
tree.heading("#8", text="Sixes")
tree.column("# 9", anchor=CENTER)
tree.heading("# 9", text="Catches")
tree.column("# 10", anchor=CENTER)
tree.heading("# 10", text="Stumpings")
tree.column("# 11", anchor=CENTER)
tree.heading("# 11", text="Run Outs")
tree.column("# 12", anchor=CENTER)
tree.heading("# 12", text="Points")
cur=con.cursor()
cur.execute("select * from mvp2019")
rows=cur.fetchall()
update(rows)
Lab=Label(w2,text="Search")
Lab.pack(side=tk.LEFT,padx=10)
Ent=Entry(w2,textvariable=b)
Ent.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Search Player",command=player)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Default",command=default)
bt.pack(side=tk.LEFT,padx=10)
bt=Button(w2,text="Sort by Sixes",command=sixes)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Fours",command=fours)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Wickets",command=wickets)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by DotBalls",command=dot)
bt.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Default",command=default)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Chennai Super Kings",command=CSK)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Mumbai Indians",command=MI)
but.pack(side=tk.LEFT,padx=6)
```

```
but=Button(w3,text="Delhi Capitals",command=DC)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Kolkata Knight Riders",command=KKR)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Kings XI Punjab",command=KXIP)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Rajasthan Royals",command=RR)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Royal Challengers Bangalore",command=RCB)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Sunrisers Hyderabad",command=SRH)
but.pack(side=tk.LEFT,padx=6)
ws.attributes('-fullscreen', True)
def close():
ws.destroy()
exit_button = Button(ws, text="Exit", command=close)
exit_button.pack(pady=20)
ws.mainloop()
```

#### iv) 2019 Batting(Player Performance):

```
from tkinter import *
import tkinter as tk
from tkinter import ttk
import mysql.connector as pro
e="
def BT2019():
  def update(rows):
      tree.delete(*tree.get_children())
      for i in rows:
        tree.insert(",'end',values=i)
  def default():
      global e
      e="
      ab=Ent.get()
      cur.execute("SELECT * from batting2019")
      rows=cur.fetchall()
      update(rows)
  def centuries():
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by Centuries DESC")
      rows=cur.fetchall()
      update(rows
  def fifties():
      ab=Ent.get()
```

```
cur.execute("SELECT * from batting2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by Fifties DESC")
      rows=cur.fetchall()
      update(rows)
  def strate():
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by StrikeRate DESC")
      rows=cur.fetchall()
      update(rows)
  def avg():
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by Average DESC")
      rows=cur.fetchall()
      update(rows)
  def player():
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Player LIKE '%"+ab+"%"")
      player1()
  def player1():
      rows=cur.fetchall()
      c=cur.rowcount
      if c==1:
        co=[["Position", "Player", "Team", "Matches", "Innings", "Not
Outs", "Runs", "Balls Faced", "Centuries", "Fifties", "Strike Rate", "Average"]]
        op=Tk()
        w=LabelFrame(op,text="Single player stats")
        w.pack(fill="both",expand="yes",padx=20,pady=10)
        ree = ttk.Treeview(w, column=("Attributes", "Stats"), show='headings',
height=12)
        ree.pack()
        ree.column("# 1", anchor=CENTER)
        ree.heading("# 1", text="Attributes")
        ree.column("# 2", anchor=CENTER)
        ree.heading("# 2", text="Stats")
        for i in rows:
           while k<=11:
             co.append(i)
             co[1]=list(co[1])
             ree.insert(",'end',values=(co[0][k],co[1][k]))
             k+=1
        def close():
           op.destroy()
        exit_button = Button(op, text="Exit", command=close)
        exit_button.pack(pady=20)
      else:
```

```
update(rows)
  def CSK():
      global e
      e='Chennai Super Kings'
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Team LIKE '%Chennai%' and
Player LIKE '%"+ab+"%"")
      rows=cur.fetchall()
      update(rows)
  def MI():
      global e
      e='Mumbai Indians'
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Team LIKE '%Mumbai%'and
Player LIKE '%"+ab+"%"")
      rows=cur.fetchall()
      update(rows)
  def DC():
      global e
      e='Delhi Capitals'
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Team LIKE '%Delhi%' and
Player LIKE '%"+ab+"%'")
      rows=cur.fetchall()
      update(rows)
  def KKR():
      global e
      e='Kolkata Knight Riders'
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Team LIKE '%Kolkata%' and
Player LIKE '%"+ab+"%'")
      rows=cur.fetchall()
      update(rows)
  def KXIP():
      global e
      e='Kings XI Punjab'
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Team LIKE '%Punjab%' and
Player LIKE '%"+ab+"%"")
      rows=cur.fetchall()
      update(rows)
  def RR():
      global e
      e='Rajasthan Royals'
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Team LIKE '%Rajasthan%' and
Player LIKE '%"+ab+"%"")
      rows=cur.fetchall()
```

```
update(rows)
  def RCB():
      global e
      e='Royal Challengers Bangalore'
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Team LIKE '%Bangalore%' and
Player LIKE '%"+ab+"%"")
      rows=cur.fetchall()
      update(rows)
  def SRH():
      global e
      e='Sunrisers Hyderabad'
      ab=Ent.get()
      cur.execute("SELECT * from batting2019 where Team LIKE '%Hyderabad%'
and Player LIKE '%"+ab+"%'")
      rows=cur.fetchall()
      update(rows)
  con=pro.connect(host='localhost',user='root',passwd='VSS@07',database='ipl')
  cur=con.cursor()
  ws=Tk()
  b=StringVar()
  ws.geometry("700x350")
  style = ttk.Style()
  style.theme_use('clam')
  w1=LabelFrame(ws,text="Batting Stats")
  w2=LabelFrame(ws,text="Search Player")
  w3=LabelFrame(ws,text="Sort Player")
  w1.pack(fill="both",expand="yes",padx=20,pady=10)
  w2.pack(fill="both",expand="yes",padx=20,pady=10)
  w3.pack(fill="both",expand="yes",padx=20,pady=10)
  tree = ttk.Treeview(w1, column=( "Position",
"Player", "Team", "Matches", "Innings", "Not Outs", "Runs", "Balls
Faced", "Centuries", "Fifties", "Strike Rate", "Average"), show='headings', height=30)
  tree.pack()
  tree.column("# 1", anchor=CENTER)
  tree.heading("# 1", text="Position")
  tree.column("# 2", anchor=CENTER)
  tree.heading("# 2", text="Player")
  tree.column("# 3", anchor=CENTER)
  tree.heading("# 3", text="Team")
  tree.column("# 4", anchor=CENTER)
  tree.heading("# 4", text="Matches")
  tree.column("# 5", anchor=CENTER)
  tree.heading("# 5", text="Innings")
  tree.column("# 6", anchor=CENTER)
  tree.heading("# 6", text="Not Outs")
```

```
tree.column("# 7", anchor=CENTER)
tree.heading("# 7", text="Runs")
tree.column("#8", anchor=CENTER)
tree.heading("# 8", text="Balls Faced")
tree.column("# 9", anchor=CENTER)
tree.heading("# 9", text="Centuries")
tree.column("# 10", anchor=CENTER)
tree.heading("# 10", text="Fifties")
tree.column("# 11", anchor=CENTER)
tree.heading("# 11", text="Strike Rate")
tree.column("# 12", anchor=CENTER)
tree.heading("# 12", text="Average")
cur=con.cursor()
cur.execute("select * from batting2019")
rows=cur.fetchall()
update(rows)
Lab=Label(w2,text="Search")
Lab.pack(side=tk.LEFT,padx=10)
Ent=Entry(w2,textvariable=b)
Ent.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Search Player",command=player)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Default",command=default)
bt.pack(side=tk.LEFT,padx=10)
bt=Button(w2,text="Sort by Centuries",command=centuries)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Fifties",command=fifties)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Strike Rate",command=strate)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Average",command=avg)
bt.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Default",command=default)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Chennai Super Kings",command=CSK)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Mumbai Indians",command=MI)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Delhi Capitals",command=DC)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Kolkata Knight Riders",command=KKR)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Kings XI Punjab",command=KXIP)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Rajasthan Royals",command=RR)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Royal Challengers Bangalore",command=RCB)
but.pack(side=tk.LEFT,padx=6)
```

```
but=Button(w3,text="Sunrisers Hyderabad",command=SRH)
but.pack(side=tk.LEFT,padx=6)
ws.attributes('-fullscreen', True)
def close():
    ws.destroy()

exit_button = Button(ws, text="Exit", command=close)
exit_button.pack(pady=20)
ws.mainloop()
```

#### v) 2019 Bowling(Player Performance):

```
from tkinter import *
import tkinter as tk
from tkinter import ttk
import mysql.connector as pro
e="
def BO2019():
  def update(rows):
      tree.delete(*tree.get_children())
      for i in rows:
        tree.insert(",'end',values=i)
  def default():
      global e
      e=''
      ab=Ent.get()
      cur.execute("SELECT * from bowling2019")
      rows=cur.fetchall()
      update(rows)
  def overs():
      ab=Ent.get()
      cur.execute("SELECT * from bowling2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by Overs DESC")
      rows=cur.fetchall()
      update(rows)
  def runs():
      ab=Ent.get()
      cur.execute("SELECT * from bowling2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by Runs DESC")
      rows=cur.fetchall()
      update(rows)
  def econ():
      ab=Ent.get()
      cur.execute("SELECT * from bowling2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by Econ DESC")
      rows=cur.fetchall()
      update(rows)
```

```
def strate():
      ab=Ent.get()
      cur.execute("SELECT * from bowling2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by SR DESC")
      rows=cur.fetchall()
      update(rows)
  def avg():
      ab=Ent.get()
      cur.execute("SELECT * from bowling2019 where Player LIKE '%"+ab+"%' and
Team LIKE '%"+e+"%' Order by Average DESC")
      rows=cur.fetchall()
      update(rows)
  def player():
      ab=Ent.get()
      cur.execute("SELECT * from bowling2019 where Player LIKE '%"+ab+"%"")
      player1()
  def player1():
      rows=cur.fetchall()
      c=cur.rowcount
      if c==1:
        k=0
        co=[["Position",
"Player", "Team", "Matches", "Innings", "Overs", "Runs", "Wickets", "Economy", "Strike
Rate","Average"]]
        op=Tk()
        w=LabelFrame(op,text="Single player stats")
        w.pack(fill="both",expand="yes",padx=20,pady=10)
        ree = ttk.Treeview(w, column=("Attributes", "Stats"), show='headings',
height=11)
        ree.pack()
        ree.column("# 1", anchor=CENTER)
        ree.heading("# 1", text="Attributes")
        ree.column("# 2", anchor=CENTER)
        ree.heading("# 2", text="Stats")
        for i in rows:
           while k < = 10:
             co.append(i)
             co[1]=list(co[1])
             ree.insert(",'end',values=(co[0][k],co[1][k]))
             k+=1
        def close():
           op.destroy()
        exit_button = Button(op, text="Exit", command=close)
        exit_button.pack(pady=20)
      else:
        update(rows)
  def CSK():
      global e
```

```
e='Chennai Super Kings'
    ab=Ent.get()
    cur.execute("SELECT * from bowling2019 where Team LIKE '%Chennai%'")
    rows=cur.fetchall()
    update(rows)
def MI():
    global e
    e='Mumbai Indians'
    ab=Ent.get()
    cur.execute("SELECT * from bowling2019 where Team LIKE '%Mumbai%'")
    rows=cur.fetchall()
    update(rows)
def DC():
    global e
    e='Delhi Capitals'
    ab=Ent.get()
    cur.execute("SELECT * from bowling2019 where Team LIKE '%Delhi%'")
    rows=cur.fetchall()
    update(rows)
def KKR():
    global e
    e='Kolkata Knight Riders'
    ab=Ent.get()
    cur.execute("SELECT * from bowling2019 where Team LIKE '%Kolkata%'")
    rows=cur.fetchall()
    update(rows)
def KXIP():
    global e
    e='Kings XI Punjab'
    ab=Ent.get()
    cur.execute("SELECT * from bowling2019 where Team LIKE '%Punjab%'")
    rows=cur.fetchall()
    update(rows)
def RR():
    global e
    e='Rajasthan Royals'
    ab=Ent.get()
    cur.execute("SELECT * from bowling2019 where Team LIKE '%Rajasthan%'")
    rows=cur.fetchall()
    update(rows)
def RCB():
    global e
    e='Royal Challengers Bangalore'
    ab=Ent.get()
    cur.execute("SELECT * from bowling2019 where Team LIKE '%Bangalore%'")
    rows=cur.fetchall()
    update(rows)
def SRH():
```

```
global e
      e='Sunrisers Hyderabad'
      ab=Ent.get()
      cur.execute("SELECT * from bowling2019 where Team LIKE '%Hyderabad%'")
      rows=cur.fetchall()
      update(rows)
  con=pro.connect(host='localhost',user='root',passwd='VSS@07',database='ipl')
  cur=con.cursor()
  ws=Tk()
  b=StringVar()
  ws.geometry("700x350")
  style = ttk.Style()
  style.theme_use('clam')
  w1=LabelFrame(ws,text="Bowling Stats")
  w2=LabelFrame(ws,text="Search Player")
  w3=LabelFrame(ws,text="Sort Team")
  w1.pack(fill="both",expand="yes",padx=20,pady=10)
  w2.pack(fill="both",expand="yes",padx=20,pady=10)
  w3.pack(fill="both",expand="yes",padx=20,pady=10)
  tree = ttk.Treeview(w1, column=( "Position",
"Player", "Team", "Matches", "Innings", "Overs", "Runs", "Wickets", "Economy", "Strike
Rate","Average"), show='headings', height=30)
  tree.pack()
  tree.column("# 1", anchor=CENTER)
  tree.heading("# 1", text="Position")
  tree.column("# 2", anchor=CENTER)
  tree.heading("# 2", text="Player")
  tree.column("# 3", anchor=CENTER)
  tree.heading("# 3", text="Team")
  tree.column("# 4", anchor=CENTER)
  tree.heading("# 4", text="Matches")
  tree.column("# 5", anchor=CENTER)
  tree.heading("# 5", text="Innings")
  tree.column("# 6", anchor=CENTER)
  tree.heading("# 6", text="Overs")
  tree.column("# 7", anchor=CENTER)
  tree.heading("# 7", text="Runs")
  tree.column("# 8", anchor=CENTER)
  tree.heading("# 8", text="Wickets")
  tree.column("# 9", anchor=CENTER)
  tree.heading("# 9", text="Economy")
  tree.column("# 10", anchor=CENTER)
  tree.heading("# 10", text="Strike Rate")
  tree.column("# 11", anchor=CENTER)
```

```
tree.heading("# 11", text="Average")
cur=con.cursor()
cur.execute("select * from bowling2019")
rows=cur.fetchall()
update(rows)
Lab=Label(w2,text="Search")
Lab.pack(side=tk.LEFT,padx=10)
Ent=Entry(w2,textvariable=b)
Ent.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Search Player",command=player)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Default",command=default)
bt.pack(side=tk.LEFT,padx=10)
bt=Button(w2,text="Sort by Overs",command=overs)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Runs",command=runs)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Economy",command=econ)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Strike Rate",command=strate)
bt.pack(side=tk.LEFT,padx=6)
bt=Button(w2,text="Sort by Average",command=avg)
bt.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Default",command=default)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Chennai Super Kings",command=CSK)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Mumbai Indians",command=MI)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Delhi Capitals",command=DC)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Kolkata Knight Riders",command=KKR)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Kings XI Punjab",command=KXIP)
but.pack(side=tk.LEFT,padx=6)
but=Button(w3,text="Rajasthan Royals",command=RR)
but.pack(side=tk.LEFT,padx=6)
```

but=Button(w3,text="Royal Challengers Bangalore",command=RCB)

but=Button(w3,text="Sunrisers Hyderabad",command=SRH)

but.pack(side=tk.LEFT,padx=6)

but.pack(side=tk.LEFT,padx=6)

```
ws.attributes('-fullscreen', True)
def close():
    ws.destroy()

exit_button = Button(ws, text="Exit", command=close)
exit_button.pack(pady=20)
ws.mainloop()
```

#### vi) 2019 Points Table:

#WAP to accept the inputs and print the NRR(Net Run Rate) of a team(If a team gets all out, the total overs is considered to be 20 overs)

#Tuple having the data form[Runs,wickets,overs,runs,wickets,overs]. 1st half comprises the own team and 2nd half for the opponent team

#Format for points table: Position, Team , Matches, Wins, Losses ,Points, NRR from tkinter import \*

from tkinter import ttk

import math

from operator import itemgetter

def PT2021():

CSK=[];MI=[];DC=[];KKR=[];PBKS=[];RCB=[];RR=[];SRH=[]

CSK.append("Chennai Super Kings")

MI.append("Mumbai Indians")

SRH.append("Sunrises Hyderabad")

KKR.append("Kolkata Knight Riders")

PBKS.append("Punjab Kings")

RR.append("Rajasthan Royals")

RCB.append("Royal Challengers Bangalore")

DC.append("Delhi Capitals")

M=0;W=0;L=0

Che=[[188,7,20,190,3,18.4],[107,4,15.4,106,8,20],[188,9,20,143,9,20],[220,3,20,202, 10,19.1],[191,4,20,122,9,20],[173,3,18.3,171,3,20],[218,4,20,219,6,20],[156,6,20,13 6,8,20],[157,4,18.1,156,6,20],[172,8,20,171,6,20],[139,4,19.4,134,7,20],[189,4,20,19 0,3,17.3],[136,5,20,139,7,19.4],[134,6,20,139,4,13]]

Mum=[[159,9,20,160,8,20],[152,10,20,142,7,20],[150,5,20,137,10,19.4],[137,9,20,13 8,4,19.1],[131,6,20,132,1,17.4],[172,3,18.3,171,4,20],[219,6,20,218,4,20],[136,8,20, 156,6,20],[155,6,20,159,3,15.1],[111,10,18.1,165,6,20],[137,4,19,135,6,20],[129,8,2 0,132,6,19.1],[94,2,8.2,90,9,20],[235,9,20,193,8,20]]

Del=[[190,3,18.4,188,7,20],[147,8,20,150,7,19.4],[198,4,18.2,195,4,20],[138,4,19.1,1 37,9,20],[159,4,20,159,7,20],[170,4,20,171,5,20],[156,3,16.3,154,6,20],[167,3,17.4,1 66,6,20],[139,2,17.5,134,9,20],[154,6,20,121,6,20],[127,9,20,130,7,18.2],[132,6,19.1 ,129,8,20],[139,7,19.4,136,5,20],[164,5,20,166,3,20]]

Kol=[[187,6,20,177,5,20],[142,7,20,152,10,20],[166,8,20,204,4,20],[202,10,19.1,220, 3,20],[133,9,20,134,4,18.5],[126,5,16.4,123,9,20],[154,6,20,156,3,16.3],[94,1,10,92, 10,19],[159,3,15.1,155,6,20],[171,6,20,172,8,20],[130,7,18.2,127,9,20],[165,7,20,16 8,5,19.3],[119,4,19.4,115,8,20],[171,4,20,85,10,16.1]]

Pun=[[221,6,20,217,7,20],[106,8,20,107,4,15.4],[195,4,20,198,4,18.2],[120,10,19.4,1 21,1,18.4],[132,1,17.4,131,6,20],[123,9,20,126,5,16.4],[179,5,20,145,8,20],[166,6,20 ,167,3,17.4],[183,4,20,185,10,20],[125,7,20,120,7,20],[135,6,20,137,4,19],[168,5,19. 3,165,7,20],[158,6,20,164,7,20],[139,4,13,134,6,20]]

Roy=[[160,8,20,159,9,20],[149,8,20,143,9,20],[204,4,20,166,8,20],[181,0,16.3,177,9,20],[122,9,20,191,4,20],[171,5,20,170,4,20],[145,8,20,179,5,20],[92,10,19,94,1,10],[156,6,20,157,4,18.1],[165,6,20,111,10,18.1],[153,3,17.1,149,9,20],[164,7,20,158,6,20],[137,6,20,141,7,20],[166,3,20,164,5,20]]

Raj=[[217,7,20,221,6,20],[150,7,19.4,147,8,20],[143,9,20,188,9,20],[177,9,20,181,0,16.3],[134,4,18.5,133,9,20],[171,4,20,172,3,18.3],[220,3,20,165,8,20],[185,10,20,183,4,20],[121,6,20,154,6,20],[164,5,20,167,3,18.3],[149,9,20,153,3,17.1],[190,3,17.3,189,4,20],[90,9,20,94,2,8.2],[85,10,16.1,171,4,20]]

Sun=[[177,5,20,187,6,20],[143,9,20,149,8,20],[137,10,19.4,150,5,20],[121,1,18.4,12 0,10,19.4],[159,7,20,159,4,20],[171,3,20,173,3,18.3],[165,8,20,220,3,20],[134,9,20,1 39,2,17.5],[120,7,20,125,7,20],[167,3,18.3,164,5,20],[134,7,20,139,4,19.4],[115,8,20 ,119,4,19.4],[141,7,20,137,6,20],[193,8,20,235,9,20]]

```
#CSK
NoR=0
aa=[];bb=[];cc=[];dd=[];ee=[];ff=[]
for i in Che:
  if sum(i)>0:
    M+=1
  if i[3]<i[0]:
    W+=1
  if i[3]>i[0]:
    L+=1
  a=i[0];b=i[1];c=i[2];d=i[3];e=i[4];f=i[5]
  aa.append(a)
  bb.append(b)
  cc.append(c)
  dd.append(d)
  ee.append(e)
  ff.append(f)
A=[]
for i in range(len(bb)):
 if bb[i] == 10:
   A.append(i)
   cc[i]=20
```

```
B=[]
for i in range(len(ee)):
 if ee[i] == 10:
   B.append(i)
   ff[i]=20
nl=[];nm=[]
g=sum(aa)
h=sum(dd)
for i in cc:
  TOTY= int(int(i)*6+round((i-int(i))*10,0))
  nm.append(TOTY)
for i in ff:
  TOTO=int(int(i)*6+round ((i-int(i))*10,0))
  nl.append(TOTO)
nn=sum(nm)/6
no=sum(nl)/6
NRR=round((g/nn)-(h/no),3)
P=W*2
sup=0
wi=0;l=0
W+=wi
L+=|
Ext=(wi*2)+P
CSK.append(M)
CSK.append(W)
CSK.append(L)
CSK.append(NoR)
CSK.append(NRR)
CSK.append(Ext)
#MI
NoR=0
gg=[];hh=[];ii=[];jj=[];kk=[];ll=[];M=0;W=0;L=0;NRR=0
for i in Mum:
  if sum(i)>0:
    M+=1
  if i[3]<i[0]:
    W+=1
  if i[3]>i[0]:
    L+=1
  g=i[0];h=i[1];ik=i[2];k=i[3];l=i[4];m=i[5]
  gg.append(g)
  hh.append(h)
  ii.append(ik)
  jj.append(k)
  kk.append(I)
  II.append(m)
```

```
O=[]
for i in range(len(hh)):
 if hh[i] == 10:
   O.append(i)
   ii[i]=20
I=[]
for i in range(len(kk)):
 if kk[i] == 10:
   I.append(i)
   II[i]=20
np=[];nq=[]
gh=sum(gg)
hg=sum(jj)
for i in ii:
  TOTX= int(int(i)*6+round((i-int(i))*10,0))
  np.append(TOTX)
for i in II:
  TOTN=int(int(i)*6+round ((i-int(i))*10,0))
  nq.append(TOTN)
nr=sum(np)/6
ns=sum(nq)/6
NRR=round((gh/nr)-(hg/ns),3)
P=W*2
sup=0
wi=0;l=0
Ext=(wi*2)+P
W+=wi
L+=|
MI.append(M)
MI.append(W)
MI.append(L)
MI.append(NoR)
MI.append(NRR)
MI.append(Ext)
#DC
mm=[];nn=[];oo=[];pp=[];qq=[];rr=[];M=0;W=0;L=0;NRR=0
for i in Del:
  if sum(i)>0:
    M+=1
  if i[3]<i[0]:
    W+=1
  if i[3]>i[0]:
  g=i[0];h=i[1];ik=i[2];k=i[3];l=i[4];m=i[5]
  mm.append(g)
  nn.append(h)
```

```
oo.append(ik)
  pp.append(k)
  qq.append(I)
  rr.append(m)
O=[]
for i in range(len(nn)):
 if nn[i] == 10:
   O.append(i)
   oo[i]=20
I=[]
for i in range(len(qq)):
 if qq[i] == 10:
   I.append(i)
   rr[i]=20
np=[];nq=[]
gh=sum(mm)
hg=sum(pp)
for i in oo:
  TOTX= int(int(i)*6+round((i-int(i))*10,0))
  np.append(TOTX)
for i in rr:
  TOTN=int(int(i)*6+round ((i-int(i))*10,0))
  nq.append(TOTN)
nr=sum(np)/6
ns=sum(nq)/6
NRR=round((gh/nr)-(hg/ns),3)
P=W*2
sup=1
wi=1;l=0
L+=|
W+=wi
Ext=(wi*2)+P
DC.append(M)
DC.append(W)
DC.append(L)
DC.append(NoR)
DC.append(NRR)
DC.append(Ext)
NR=0
#KKR
NoR=0
gg=[];hh=[];ii=[];jj=[];kk=[];ll=[];M=0;W=0;L=0;NRR=0
for i in Kol:
  if sum(i)>0:
    M+=1
  if i[3]<i[0]:
    W+=1
  if i[3]>i[0]:
```

```
L+=1
  g=i[0];h=i[1];ik=i[2];k=i[3];l=i[4];m=i[5]
  gg.append(g)
  hh.append(h)
  ii.append(ik)
  jj.append(k)
  kk.append(I)
  II.append(m)
O=[]
for i in range(len(hh)):
 if hh[i] == 10:
   O.append(i)
   ii[i]=20
I=[]
for i in range(len(kk)):
 if kk[i] == 10:
   I.append(i)
   II[i]=20
np=[];nq=[]
gh=sum(gg)
hg=sum(jj)
for i in ii:
  TOTX= int(int(i)*6+round((i-int(i))*10,0))
  np.append(TOTX)
for i in II:
  TOTN=int(int(i)*6+round ((i-int(i))*10,0))
  nq.append(TOTN)
nr=sum(np)/6
ns=sum(nq)/6
NRR=round((gh/nr)-(hg/ns),3)
P=W*2
sup=0
wi=0;l=0
L+=|
W+=wi
Ext=(wi*2)+P
KKR.append(M)
KKR.append(W)
KKR.append(L)
KKR.append(NoR)
KKR.append(NRR)
KKR.append(Ext)
#PBKS
gg=[];hh=[];ii=[];jj=[];kk=[];ll=[];M=0;W=0;L=0;NRR=0
for i in Pun:
  if sum(i)>0:
```

```
M+=1
  if i[3]<i[0]:
    W+=1
  if i[3]>i[0]:
    L+=1
  g=i[0];h=i[1];ik=i[2];k=i[3];l=i[4];m=i[5]
  gg.append(g)
  hh.append(h)
  ii.append(ik)
  jj.append(k)
  kk.append(I)
  II.append(m)
O=[]
for i in range(len(hh)):
 if hh[i] == 10:
   O.append(i)
   ii[i]=20
I=[]
for i in range(len(kk)):
 if kk[i] == 10:
   I.append(i)
   II[i]=20
np=[];nq=[]
gh=sum(gg)
hg=sum(jj)
for i in ii:
  TOTX= int(int(i)*6+round((i-int(i))*10,0))
  np.append(TOTX)
for i in II:
  TOTN=int(int(i)*6+round ((i-int(i))*10,0))
  nq.append(TOTN)
nr=sum(np)/6
ns=sum(nq)/6
NRR=round((gh/nr)-(hg/ns),3)
P=W*2
sup=0;l=0
L+=|
wi=0
W+=wi
Ext=(wi*2)+P
PBKS.append(M)
PBKS.append(W)
PBKS.append(L)
PBKS.append(NoR)
PBKS.append(NRR)
PBKS.append(Ext)
```

```
NoR=0
gg=[];hh=[];ii=[];jj=[];kk=[];II=[];M=0;W=0;L=0;NRR=0
for i in Roy:
  if sum(i)>0:
    M+=1
  if i[3]<i[0]:
    W+=1
  if i[3]>i[0]:
    L+=1
  g=i[0];h=i[1];ik=i[2];k=i[3];l=i[4];m=i[5]
  gg.append(g)
  hh.append(h)
  ii.append(ik)
  jj.append(k)
  kk.append(I)
  II.append(m)
O=[]
for i in range(len(hh)):
 if hh[i] == 10:
   O.append(i)
   ii[i]=20
I=[]
for i in range(len(kk)):
 if kk[i] == 10:
   I.append(i)
   II[i]=20
np=[];nq=[]
gh=sum(gg)
hg=sum(jj)
for i in ii:
  TOTX= int(int(i)*6+round((i-int(i))*10,0))
  np.append(TOTX)
for i in II:
  TOTN=int(int(i)*6+round ((i-int(i))*10,0))
  nq.append(TOTN)
nr=sum(np)/6
ns=sum(nq)/6
NRR=round((gh/nr)-(hg/ns),3)
P=W*2
sup=0
wi=0;l=0
L+=|
W+=wi
Ext=(wi*2)+P
RCB.append(M)
RCB.append(W)
RCB.append(L)
RCB.append(NoR)
```

```
RCB.append(NRR)
RCB.append(Ext)
#RR
NoR=0
gg=[];hh=[];ii=[];jj=[];kk=[];ll=[];M=0;W=0;L=0;NRR=0
for i in Raj:
  if sum(i)>0:
    M+=1
  if i[3]<i[0]:
    W+=1
  if i[3]>i[0]:
    L+=1
  g=i[0];h=i[1];ik=i[2];k=i[3];l=i[4];m=i[5]
  gg.append(g)
  hh.append(h)
  ii.append(ik)
  jj.append(k)
  kk.append(I)
  II.append(m)
O=[]
for i in range(len(hh)):
 if hh[i] == 10:
   O.append(i)
   ii[i]=20
I=[]
for i in range(len(kk)):
 if kk[i] == 10:
   I.append(i)
   II[i]=20
np=[];nq=[]
gh=sum(gg)
hg=sum(jj)
for i in ii:
  TOTX= int(int(i)*6+round((i-int(i))*10,0))
  np.append(TOTX)
for i in II:
  TOTN=int(int(i)*6+round ((i-int(i))*10,0))
  nq.append(TOTN)
nr=sum(np)/6
ns=sum(nq)/6
NRR=round((gh/nr)-(hg/ns),3)
P=W*2
sup=0
wi=0;l=0
L+=|
W+=wi
```

```
Ext=(wi*2)+P
RR.append(M)
RR.append(W)
RR.append(L)
RR.append(NoR)
RR.append(NRR)
RR.append(Ext)
#SRH
NoR=0
gg=[];hh=[];ii=[];jj=[];kk=[];ll=[];M=0;W=0;L=0;NRR=0
for i in Sun:
  if sum(i)>0:
    M+=1
  if i[3]<i[0]:
    W+=1
  if i[3]>i[0]:
    L+=1
  g=i[0];h=i[1];ik=i[2];k=i[3];l=i[4];m=i[5]
  gg.append(g)
  hh.append(h)
  ii.append(ik)
  jj.append(k)
  kk.append(I)
  II.append(m)
O=[]
for i in range(len(hh)):
 if hh[i] == 10:
   O.append(i)
   ii[i]=20
I=[]
for i in range(len(kk)):
 if kk[i] == 10:
   I.append(i)
   II[i]=20
np=[];nq=[]
gh=sum(gg)
hg=sum(jj)
for i in ii:
  TOTX = int(int(i)*6 + round((i-int(i))*10,0))
  np.append(TOTX)
  TOTN=int(int(i)*6+round ((i-int(i))*10,0))
  nq.append(TOTN)
nr=sum(np)/6
ns=sum(nq)/6
NRR=round((gh/nr)-(hg/ns),3)
```

```
P=W*2
  sup=1
  wi=0;l=1
  L+=|
  W+=wi
  Ext=(wi*2)+P
  SRH.append(M)
  SRH.append(W)
  SRH.append(L)
  SRH.append(NoR)
  SRH.append(NRR)
  SRH.append(Ext)
  OVR=[]
  OVR.append(CSK)
  OVR.append(DC)
  OVR.append(KKR)
  OVR.append(MI)
  OVR.append(PBKS)
  OVR.append(RCB)
  OVR.append(RR)
  OVR.append(SRH)
  abc=sorted(OVR, key=itemgetter(6,5),reverse=True)
  Pos=[1,2,3,4,5,6,7,8]
  for i in range(1,9):
    abc[i-1].insert(0,i)
  win = Tk()
  win.geometry("700x350")
  style = ttk.Style()
  style.theme_use('clam')
  tree = ttk.Treeview(win, column=("Pos", "Team", "M", "W", "L", "N/R", "NRR", "Pts"),
show='headings', height=8)
  tree.column("# 1", anchor=CENTER)
  tree.heading("# 1", text="Pos")
  tree.column("# 2", anchor=CENTER)
  tree.heading("# 2", text="Team")
  tree.column("# 3", anchor=CENTER)
  tree.heading("# 3", text="M")
  tree.column("# 4", anchor=CENTER)
  tree.heading("# 4", text="W")
  tree.column("# 5", anchor=CENTER)
  tree.heading("# 5", text="L")
```

```
tree.column("# 6", anchor=CENTER)
  tree.heading("# 6", text="N/R")
  tree.column("# 7", anchor=CENTER)
  tree.heading("# 7", text="NRR")
  tree.column("#8", anchor=CENTER)
  tree.heading("# 8", text="Pts")
  def close():
   win.destroy()
  exit_button = Button(win, text="Exit", command=close)
  exit_button.pack(pady=20)
  tree.insert(", 'end', text="1", values=(abc[0][0],
abc[0][1],abc[0][2],abc[0][3],abc[0][4],abc[0][5],abc[0][6],abc[0][7] ))
  tree.insert(", 'end', text="1", values=(abc[1][0],
abc[1][1],abc[1][2],abc[1][3],abc[1][4],abc[1][5],abc[1][6],abc[1][7] ))
  tree.insert(", 'end', text="1", values=(abc[2][0],
abc[2][1],abc[2][2],abc[2][3],abc[2][4],abc[2][5],abc[2][6],abc[2][7] ))
  tree.insert(", 'end', text="1", values=(abc[3][0],
abc[3][1],abc[3][2],abc[3][3],abc[3][4],abc[3][5],abc[3][6],abc[3][7] ))
  tree.insert(", 'end', text="1", values=(abc[4][0],
abc[4][1],abc[4][2],abc[4][3],abc[4][4],abc[4][5],abc[4][6],abc[4][7] ))
  tree.insert(", 'end', text="1", values=(abc[5][0],
abc[5][1],abc[5][2],abc[5][3],abc[5][4],abc[5][5],abc[5][6],abc[5][7] ))
  tree.insert(", 'end', text="1", values=(abc[6][0],
abc[6][1],abc[6][2],abc[6][3],abc[6][4],abc[6][5],abc[6][6],abc[6][7] ))
  tree.insert(", 'end', text="1", values=(abc[7][0],
abc[7][1],abc[7][2],abc[7][3],abc[7][4],abc[7][5],abc[7][6],abc[7][7] ))
  tree.pack()
  win.mainloop()
```

# **OUTPUT**

## Main interface:-



## <u>i)</u> MVP 2019:-

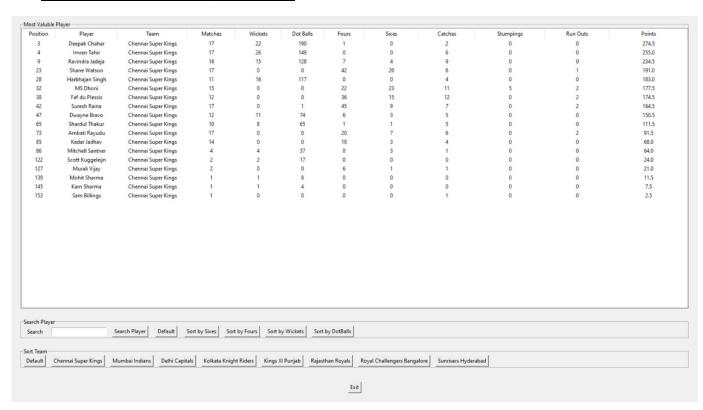
urs Sixes	Catches	Stumpings	Run Outs	Points
31 52	4	0	0	369.0
28 29	11	0	0	342.0
1 0	2	0	0	274.5
0 0	6	0	0	255.0
37 27	18	6	2	249.0
2 2	4	0	0	247.5
15 25	17	2	0	247.5
0 0	2	0	2	242.5
7 4	9	0	0	234.5
15 34	0	0	0	231.5
19 25	7	0	0	227.5
1 0	4	0	1	227.0
57 21	2	0	0	221.0
0 1	6	0	2	221.0
34 11	5	0	2	213.0
8 1	5	0	0	213.0
18 5	5	0	1	212.0
18 18	9	2	0	210.5
7 9	0	0	0	205.0
10 3	9	0	0	203.0
0 0	5	0	1	199.0
4 4	3	0	1	192.0
12 20	6	0	1	191.0
0 0	3	0	1	188.0
0 0	3	0	0	187.5
6 17	1	0	0	186.0
31 26	6	0	0	183.5
0 0	4	0	0	183.0
2 0	3	0	0	183.0
3 3	4	0	2	182.5
alls				
alls				

Exit

#### MVP 2019(sorted by Fours):-

	Player	Team	Matches	Wickets	Dot Balls	Fours	Sixes	Catches	Stumpings	Run Outs	Points
15	Shikhar Dhawan	Delhi Capitals	16	0	0	64	11	5	0	2	213.0
13	David Warner	Sunrisers Hyderabad	12	0	0	57	21	2	0	0	221.0
33	Rohit Sharma	Mumbai Indians	15	0	0	52	10	4	0	1	176.0
11	Lokesh Rahul	Kings XI Punjab	14	0	0	49	25	7	0	0	227.5
18	Jonny Bairstow	Sunrisers Hyderabad	10	0	0	48	18	9	2	0	210.5
34	Parthiv Patel	Royal Challengers Bangalore	14	0	0	48	10	6	2	1	176.0
36	Virat Kohli	Royal Challengers Bangalore	14	0	0	46	13	5	0	1	174.0
7	Quinton de Kock	Mumbai Indians	16	0	0	45	25	17	2	0	247.5
10	Chris Gayle	Kings XI Punjab	13	0	0	45	34	0	0	0	231.5
40	Suryakumar Yadav	Mumbai Indians	16	0	0	45	10	9	0	0	170.0
42	Suresh Raina	Chennai Super Kings	17	0	1	45	9	7	0	2	164.5
44	Ajinkya Rahane	Rajasthan Royals	14	0	0	45	9	5	0	0	156.5
48	Prithvi Shaw	Delhi Capitals	16	0	0	45	9	2	0	1	150.0
23	Shane Watson	Chennai Super Kings	17	0	0	42	20	6	0	1	191.0
31	Chris Lynn	Kolkata Knight Riders	13	0	0	41	22	1	0	0	182.0
39	Shreyas Iyer	Delhi Capitals	16	0	0	41	14	8	0	2	173.5
41	Jos Buttler	Rajasthan Royals	8	0	0	38	14	8	0	0	164.0
5	Rishabh Pant	Delhi Capitals	16	0	0	37	27	18	6	2	249.0
38	Faf du Plessis	Chennai Super Kings	12	0	0	36	15	12	0	2	174.5
58	Manish Pandey	Sunrisers Hyderabad	12	0	0	34	6	7	0	0	123.5
1	Andre Russell	Kolkata Knight Riders	14	11	61	31	52	4	0	0	369.0
27	AB de Villiers	Royal Challengers Bangalore	13	0	0	31	26	6	0	0	183.5
71	Steven Smith	Rajasthan Royals	12	0	0	30	4	3	0	0	96.5
2	Hardik Pandya	Mumbai Indians	16	14	94	28	29	11	0	0	342.0
57	Sanju Samson	Rajasthan Royals	12	0	0	28	13	3	2	0	128.0
60	Robin Uthappa	Kolkata Knight Riders	12	0	0	28	10	4	0	1	116.0
37	Nitish Rana	Kolkata Knight Riders	14	3	15	27	21	3	0	0	174.0
54	Mayank Agarwal	Kings XI Punjab	13	0	0	26	14	7	0	2	133.5
32	MS Dhoni	Chennai Super Kings	15	0	0	22	23	11	5	2	177.5
59	Dinesh Karthik	Kolkata Knight Riders	14	0	0	22	14	7	0	0	121.5

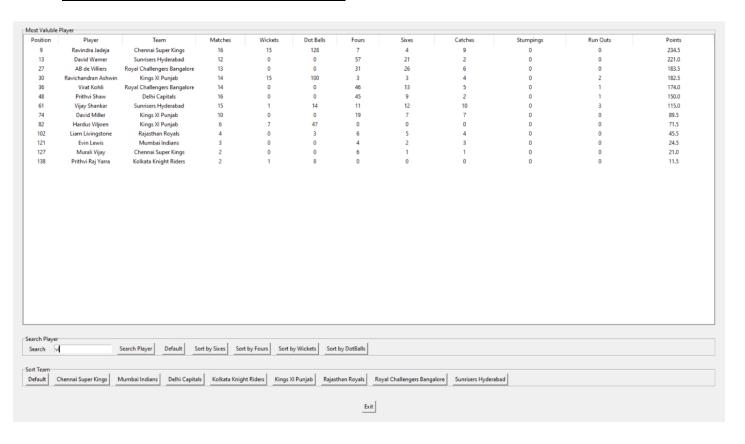
#### MVP 2019(sorted by Team):-



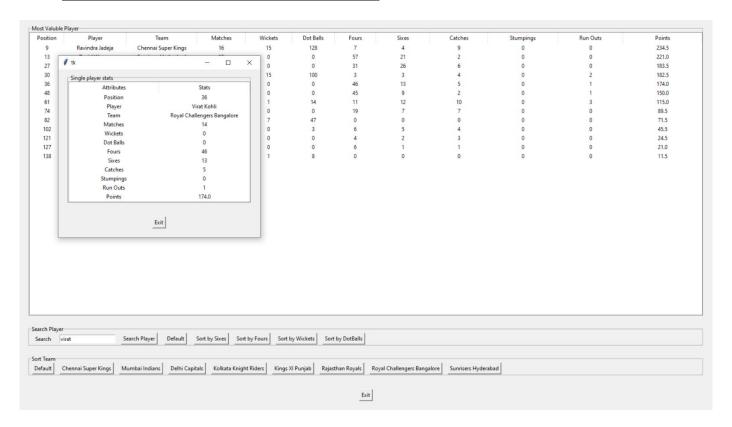
## MVP 2019(sorted by Team and a column):-

osition	Player	Team	Matches	Wickets	Dot Balls	Fours	Sixes	Catches	Stumpings	Run Outs	Points
42	Suresh Raina	Chennai Super Kings	17	0	1	45	9	7	0	2	164.5
23	Shane Watson	Chennai Super Kings	17	0	0	42	20	6	0	1	191.0
38	Faf du Plessis	Chennai Super Kings	12	0	0	36	15	12	0	2	174.5
32	MS Dhoni	Chennai Super Kings	15	0	0	22	23	11	5	2	177.5
73	Ambati Rayudu	Chennai Super Kings	17	0	0	20	7	6	0	2	91.5
85	Kedar Jadhav	Chennai Super Kings	14	0	0	19	3	4	0	0	68.0
9	Ravindra Jadeja	Chennai Super Kings	16	15	128	7	4	9	0	0	234.5
47	Dwayne Bravo	Chennai Super Kings	12	11	74	6	3	5	0	0	150.5
127	Murali Vijay	Chennai Super Kings	2	0	0	6	1	1	0	0	21.0
3	Deepak Chahar	Chennai Super Kings	17	22	190	1	0	2	0	0	274.5
65	Shardul Thakur	Chennai Super Kings	10	8	65	1	1	5	0	0	111.5
4	Imran Tahir	Chennai Super Kings	17	26	149	0	0	6	0	0	255.0
28	Harbhajan Singh	Chennai Super Kings	11	16	117	0	0	4	0	0	183.0
86	Mitchell Santner	Chennai Super Kings	4	4	37	0	3	1	0	0	64.0
122	Scott Kuggeleijn	Chennai Super Kings	2	2	17	0	0	0	0	0	24.0
139	Mohit Sharma	Chennai Super Kings	1	1	8	0	0	0	0	0	11.5
145	Karn Sharma	Chennai Super Kings	1	1	4	0	0	0	0	0	7.5
153	Sam Billings	Chennai Super Kings	1	0	0	0	0	1	0	0	2.5
A		Search Player   Default   S	iort by Sixes   Sort	by Fours   Sort	oy Wickets   Sort	by DotBalls					
rch	1	Search Player Default S	ort by Sixes Sort	by Fours Sort	oy Wickets Sort	by DotBalls					
ch Player irch Team ault Ch		Search Player Default S					yal Challengers Bangalo	re Sunrisers Hyderaba	nd		

#### MVP 2019(search by keyword):-



## MVP 2019(search by single player):-



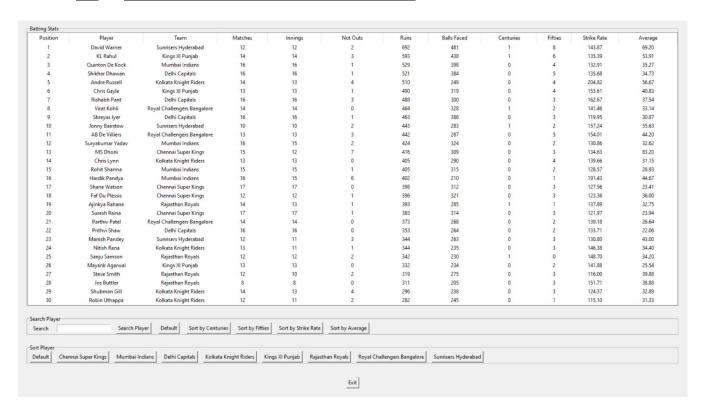
#### ii) Points Table 2019:-



#### iii) Player Stats 2019 submenu:-



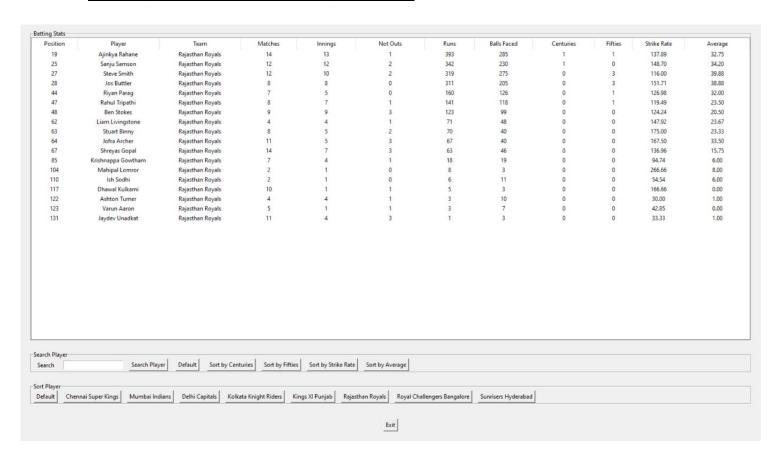
## iv) Batting Stats 2019(Player Stats):-



#### Batting Stats 2019 (sorted by Average):-

Position	Player	Team	Matches	Innings	Not Outs	Runs	Balls Faced	Centuries	Fifties	Strike Rate	Average
13	MS Dhoni	Chennai Super Kings	15	12	7	416	309	0	3	134.63	83.20
1	David Warner	Sunrisers Hyderabad	12	12	2	692	481	1	8	143.87	69.20
5	Andre Russell	Kolkata Knight Riders	14	13	4	510	249	0	4	204.82	56.67
10	Jonny Bairstow	Sunrisers Hyderabad	10	10	2	445	283	1	2	157.24	55.63
2	KL Rahul	Kings XI Punjab	14	14	3	593	438	1	6	135.39	53.91
37	Marcus Stoinis	Royal Challengers Bangalore	10	10	6	211	156	0	0	135.26	52.75
40	Sarfaraz Khan	Kings XI Punjab	8	5	1	180	143	0	1	125.87	45.00
16	Hardik Pandya	Mumbai Indians	16	15	6	402	210	0	1	191.43	44.67
11	AB De Villiers	Royal Challengers Bangalore	13	13	3	442	287	0	5	154.01	44.20
23	Manish Pandey	Sunrisers Hyderabad	12	11	3	344	263	0	3	130.80	43.00
42	Mandeep Singh	Kings XI Punjab	13	12	8	165	120	0	0	137.50	41.25
6	Chris Gayle	Kings XI Punjab	13	13	1	490	319	0	4	153.61	40.83
27	Steve Smith	Rajasthan Royals	12	10	2	319	275	0	3	116.00	39.88
28	Jos Buttler	Rajasthan Royals	8	8	0	311	205	0	3	151.71	38.88
7	Rishabh Pant	Delhi Capitals	16	16	3	488	300	0	3	162.67	37.54
18	Faf Du Plessis	Chennai Super Kings	12	12	1	396	321	0	3	123.36	36.00
51	Ravindra Jadeja	Chennai Super Kings	16	9	6	106	88	0	0	120.45	35.33
3	Quinton De Kock	Mumbai Indians	16	16	1	529	398	0	4	132.91	35.27
32	Kieron Pollard	Mumbai Indians	16	14	6	279	178	0	1	156.74	34.88
4	Shikhar Dhawan	Delhi Capitals	16	16	1	521	384	0	5	135.68	34.73
24	Nitish Rana	Kolkata Knight Riders	13	11	1	344	235	0	3	146.38	34.40
25	Sanju Samson	Rajasthan Royals	12	12	2	342	230	1	0	148.70	34.20
64	Jofra Archer	Rajasthan Royals	11	5	3	67	40	0	0	167.50	33.50
8	Virat Kohli	Royal Challengers Bangalore	14	14	0	464	328	1	2	141.46	33.14
29	Shubman Gill	Kolkata Knight Riders	14	13	4	296	238	0	3	124.37	32.89
19	Ajinkya Rahane	Rajasthan Royals	14	13	1	393	285	1	1	137.89	32.75
53	Gurkeerat Mann Singh	Royal Challengers Bangalore	3	3	0	98	70	0	1	140.00	32.67
12	Suryakumar Yadav	Mumbai Indians	16	15	2	424	324	0	2	130.86	32.62
44	Riyan Parag	Rajasthan Royals	7	5	0	160	126	0	1	126.98	32.00
65	Murali Vijay	Chennai Super Kings	2	2	0	64	61	0	0	104.92	32.00

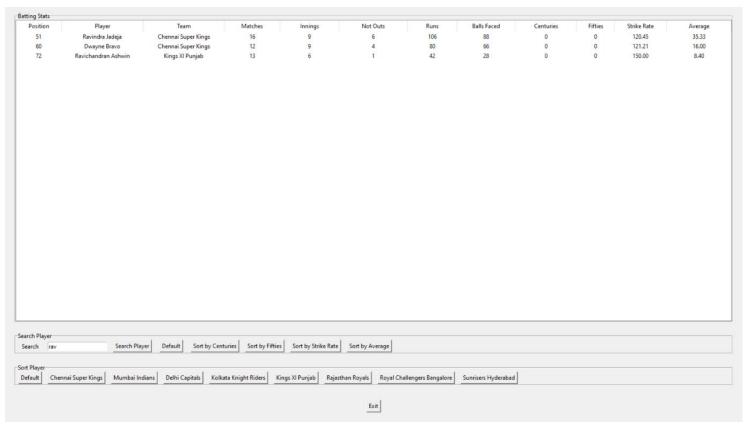
#### **Batting Stats 2019(Sorted by Team):-**



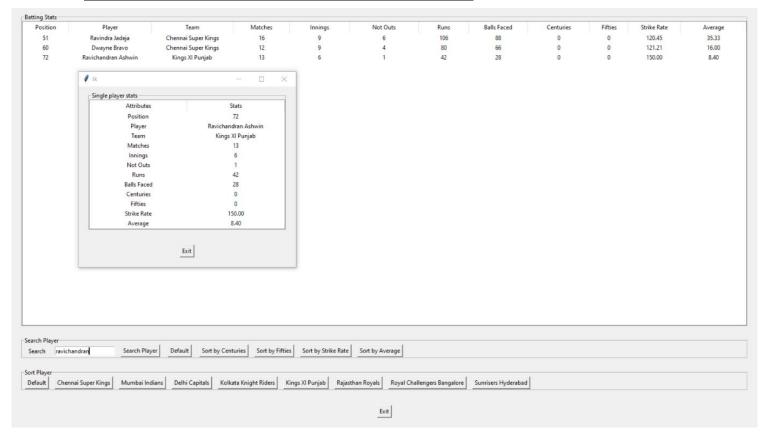
## Batting Stats(Sorted by Team and a column):-

osition	Player	Team	Matches	Innings	Not Outs	Runs	Balls Faced	Centuries	Fifties	Strike Rate	Average
27	Steve Smith	Rajasthan Royals	12	10	2	319	275	0	3	116.00	39.88
28	Jos Buttler	Rajasthan Royals	8	8	0	311	205	0	3	151.71	38.88
19	Ajinkya Rahane	Rajasthan Royals	14	13	1	393	285	1	1	137.89	32.75
44	Riyan Parag	Rajasthan Royals	7	5	0	160	126	0	1	126.98	32.00
47	Rahul Tripathi	Rajasthan Royals	8	7	1	141	118	0	1	119.49	23.50
25	Sanju Samson	Rajasthan Royals	12	12	2	342	230	1	0	148.70	34.20
48	Ben Stokes	Rajasthan Royals	9	9	3	123	99	0	0	124.24	20.50
62	Liam Livingstone	Rajasthan Royals	4	4	1	71	48	0	0	147.92	23.67
63	Stuart Binny	Rajasthan Royals	8	5	2	70	40	0	0	175.00	23.33
64	Jofra Archer	Rajasthan Royals	11	5	3	67	40	0	0	167.50	33.50
67	Shreyas Gopal	Rajasthan Royals	14	7	3	63	46	0	0	136.96	15.75
85	Krishnappa Gowtham	Rajasthan Royals	7	4	1	18	19	0	0	94.74	6.00
104	Mahipal Lomror	Rajasthan Royals	2	1	0	8	3	0	0	266.66	8.00
110	Ish Sodhi	Rajasthan Royals	2	1	0	6	11	0	0	54.54	6.00
117	Dhawal Kulkarni	Rajasthan Royals	10	1	1	5	3	0	0	166.66	0.00
122	Ashton Turner	Rajasthan Royals	4	4	1	3	10	0	0	30.00	1.00
123	Varun Aaron	Rajasthan Royals	5	1	1	3	7	0	0	42.85	0.00
131	Jaydev Unadkat	Rajasthan Royals	11	4	3	1	3	0	0	33.33	1.00
				1 12 12 22 23	Sort by Average						
h Player	Search Dlave	Default Sort by Can	turies Sort by Fiftier	Sort by Strike Pate							
h Player rch	Search Playe	Default Sort by Cen	Sort by Fifties	Sort by Strike Rate	Solt by Avelage						
rch	Search Playe	Default Sort by Cen	Sort by Fifties	Sort by Strike Rate	Solit by Average						
Player	Search Player				,	llengers Bangalore	Sunrisers Hyderabad				

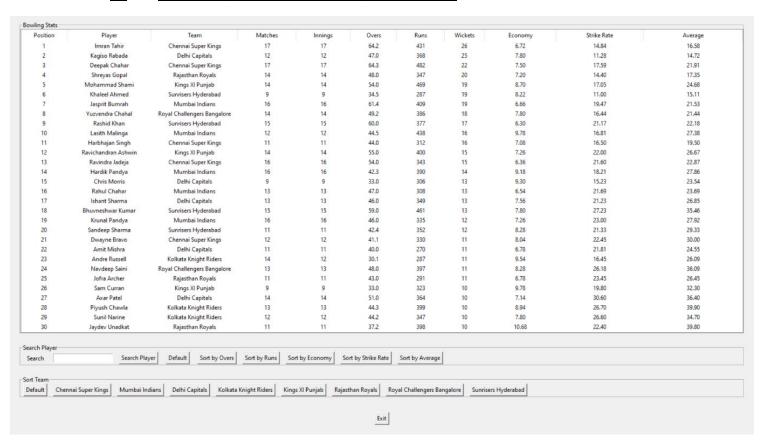
## Batting Stats(Search by keyword):-



#### Batting Stats 2019(Search by single player):-



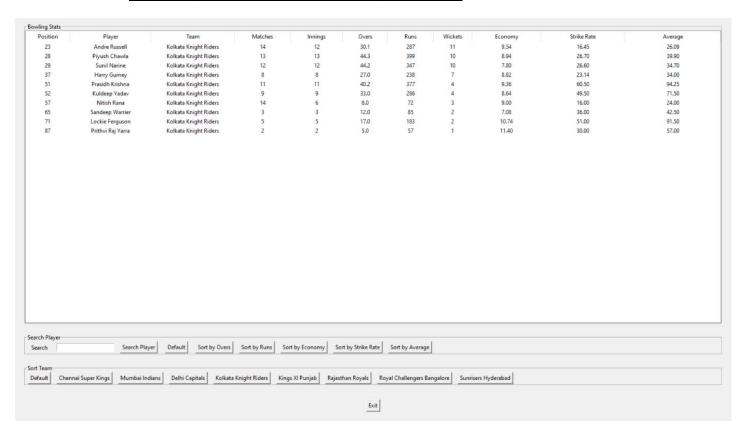
#### v) Bowling Stats 2019(Player Stats):-



#### **Bowling Stats 2019(Sorted By Runs):-**

	Player	Team	Matches	Innings	Overs	Runs	Wickets	Economy	Strike Rate	Average
3	Deepak Chahar	Chennai Super Kings	17	17	64.3	482	22	7.50	17.59	21.91
5	Mohammad Shami	Kings XI Punjab	14	14	54.0	469	19	8.70	17.05	24.68
18	Bhuvneshwar Kumar	Sunrisers Hyderabad	15	15	59.0	461	13	7.80	27.23	35.46
10	Lasith Malinga	Mumbai Indians	12	12	44.5	438	16	9.78	16.81	27.38
1	Imran Tahir	Chennai Super Kings	17	17	64.2	431	26	6.72	14.84	16.58
7	Jasprit Bumrah	Mumbai Indians	16	16	61.4	409	19	6.66	19.47	21.53
12	Ravichandran Ashwin	Kings XI Punjab	14	14	55.0	400	15	7.26	22.00	26.67
28	Piyush Chawla	Kolkata Knight Riders	13	13	44.3	399	10	8.94	26.70	39.90
30	Jaydev Unadkat	Rajasthan Royals	11	11	37.2	398	10	10.68	22.40	39.80
24	Navdeep Saini	Royal Challengers Bangalore	13	13	48.0	397	11	8.28	26.18	36.09
14	Hardik Pandya	Mumbai Indians	16	16	42.3	390	14	9.18	18.21	27.86
8	Yuzvendra Chahal	Royal Challengers Bangalore	14	14	49.2	386	18	7.80	16.44	21,44
9	Rashid Khan	Sunrisers Hyderabad	15	15	60.0	377	17	6.30	21.17	22.18
51	Prasidh Krishna	Kolkata Knight Riders	11	11	40.2	377	4	9.36	60.50	94.25
34	Umesh Yadav	Royal Challengers Bangalore	11	11	37.5	371	8	9.78	28.37	46.38
2	Kagiso Rabada	Delhi Capitals	12	12	47.0	368	25	7.80	11.28	14.72
27	Axar Patel	Delhi Capitals	14	14	51.0	364	10	7.14	30.60	36.40
20	Sandeep Sharma	Sunrisers Hyderabad	11	11	42.4	352	12	8.28	21.33	29.33
17	Ishant Sharma	Delhi Capitals	13	13	46.0	349	13	7.56	21.23	26.85
4	Shreyas Gopal	Rajasthan Royals	14	14	48.0	347	20	7.20	14.40	17.35
29	Sunil Narine	Kolkata Knight Riders	12	12	44.2	347	10	7.80	26.60	34.70
13	Ravindra Jadeja	Chennai Super Kings	16	16	54.0	343	15	6.36	21.60	22.87
19	Krunal Pandya	Mumbai Indians	16	16	46.0	335	12	7.26	23.00	27.92
42	Dhawal Kulkarni	Rajasthan Royals	10	10	35.0	335	6	9.60	35.00	55.83
21	Dwayne Bravo	Chennai Super Kings	12	12	41.1	330	11	8.04	22.45	30.00
26	Sam Curran	Kings XI Punjab	9	9	33.0	323	10	9.78	19.80	32.30
11	Harbhajan Singh	Chennai Super Kings	11	11	44.0	312	16	7.08	16.50	19.50
16	Rahul Chahar	Mumbai Indians	13	13	47.0	308	13	6.54	21.69	23,69
15	Chris Morris	Delhi Capitals	9	9	33.0	306	13	9.30	15.23	23.54
25	Jofra Archer	Rajasthan Royals	11	11	43.0	291	11	6.78	23.45	26.45

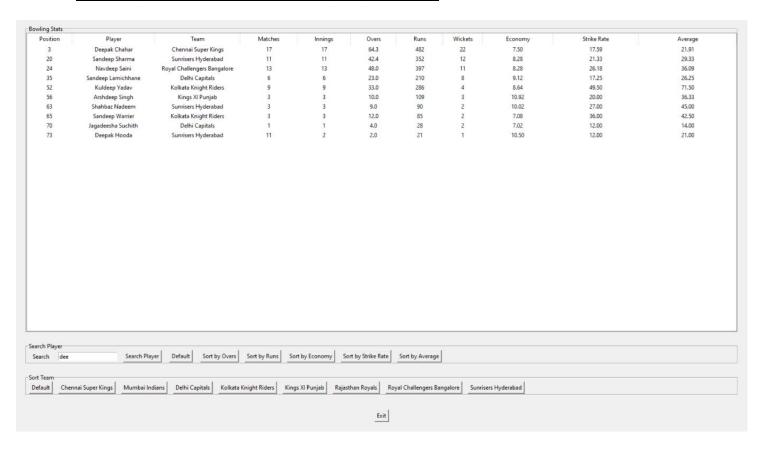
#### **Bowling Stats 2019(Sorted by Team):-**



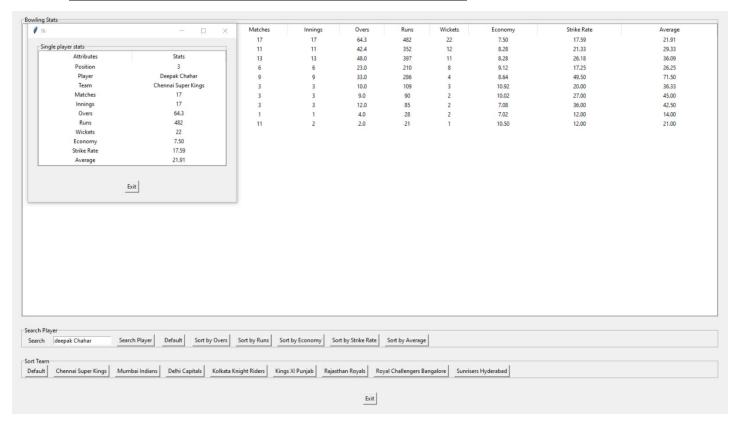
#### Bowling Stats 2019(Sorted by Team and a column):-

Position	Player	Team	Matches	Innings	Overs	Runs	Wickets	Economy	Strike Rate	Average
28	Piyush Chawla	Kolkata Knight Riders	13	13	44.3	399	10	8.94	26.70	39.90
51	Prasidh Krishna	Kolkata Knight Riders	11	11	40.2	377	4	9.36	60.50	94.25
29	Sunil Narine	Kolkata Knight Riders	12	12	44.2	347	10	7.80	26.60	34.70
23	Andre Russell	Kolkata Knight Riders	14	12	30.1	287	11	9.54	16.45	26.09
52	Kuldeep Yadav	Kolkata Knight Riders	9	9	33.0	286	4	8.64	49.50	71.50
37	Harry Gurney	Kolkata Knight Riders	8	8	27.0	238	7	8.82	23.14	34.00
71	Lockie Ferguson	Kolkata Knight Riders	5	5	17.0	183	2	10.74	51.00	91.50
65	Sandeep Warrier	Kolkata Knight Riders	3	3	12.0	85	2	7.08	36.00	42.50
57	Nitish Rana	Kolkata Knight Riders	14	6	8.0	72	3	9.00	16.00	24.00
87	Prithvi Raj Yarra	Kolkata Knight Riders	2	2	5.0	57	1	11.40	30.00	57.00
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ch Player	Search Pla	yer Default Sort by Overs	Sort by Runs So	rt by Economy So	ort by Strike Rate	Sort by Average				
ch Player erch	JESICH 7 10									
Team	nai Super Kings Mumbai In	dians Delhi Capitals Kolkat	a Knight Riders King	s XI Punjab Rajas	than Royals Ro	yal Challengers Ba	angalore Sunrise	ers Hyderabad		

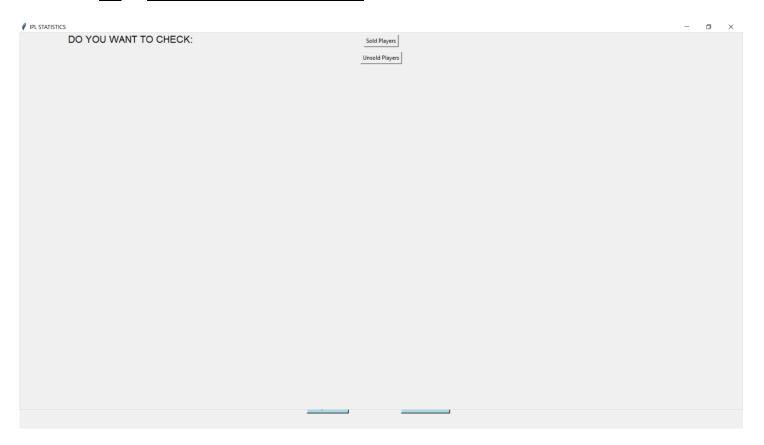
#### Bowling Stats 2019(Search By keyword):-



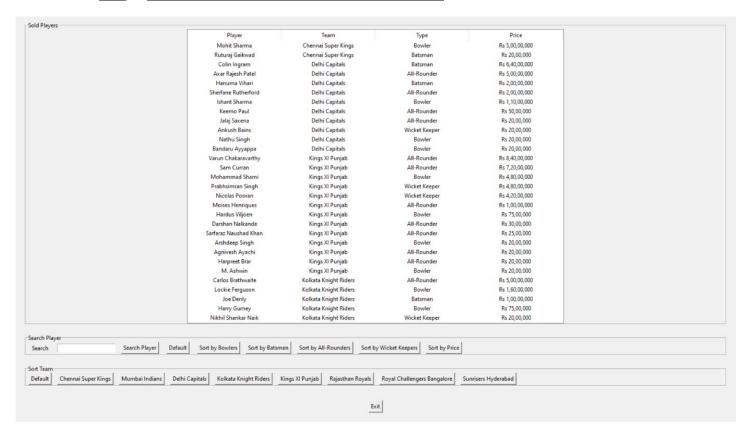
## Bowling Stats 2019(Search by Single Player):-



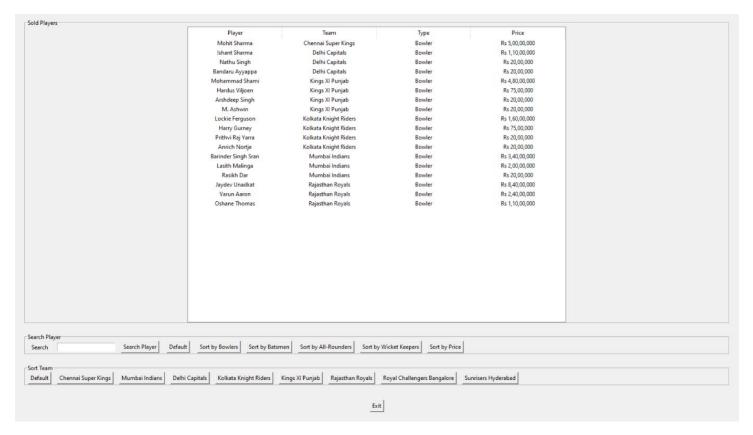
#### vi) Auction Data Submenu:-



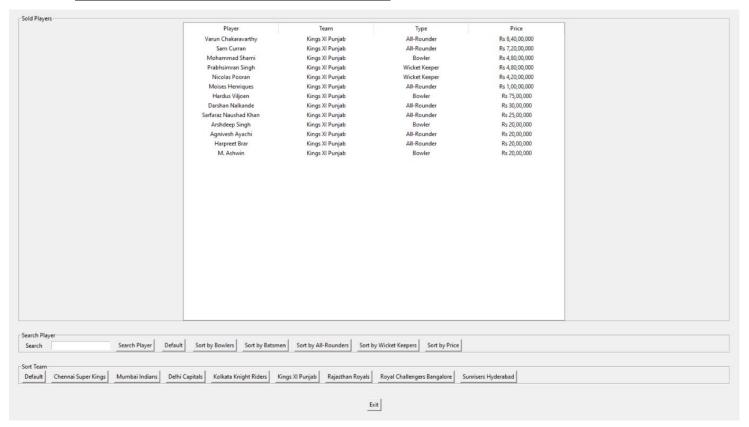
#### vii) Sold Players 2019(Auction Data):-



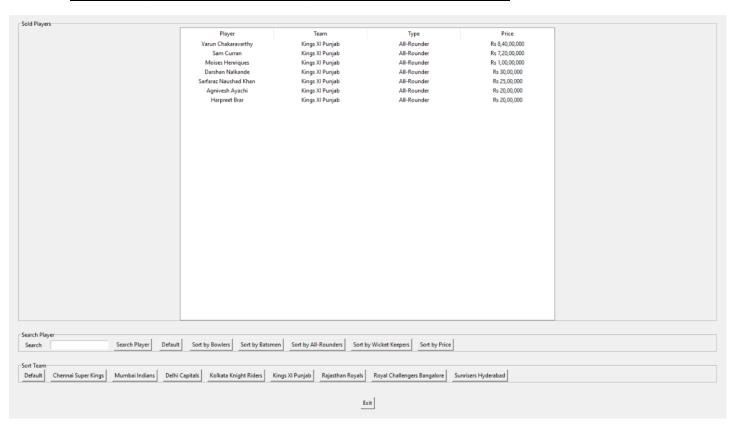
#### Sold Players 2019(Sorted by Bowlers):-



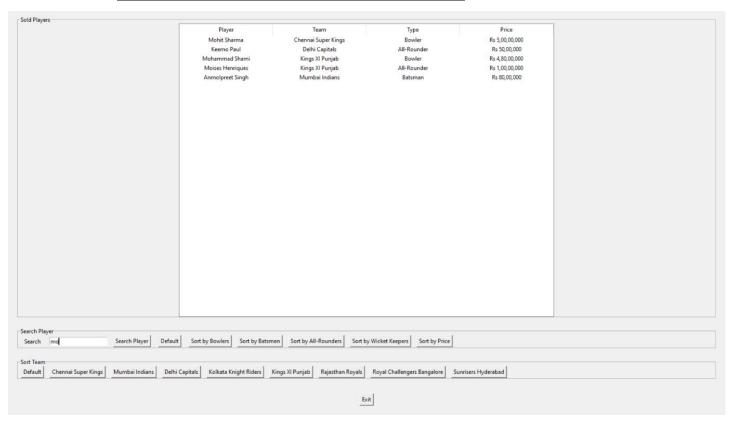
#### Sold Players 2019(sorted by team):-



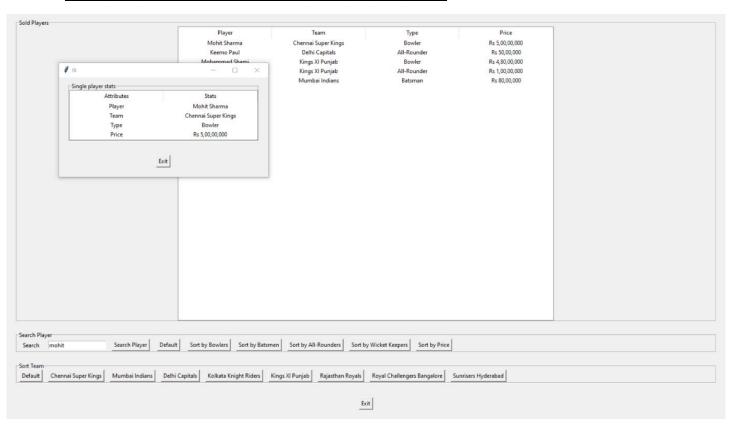
#### Sold Players 2019(sorted by team and a column):-



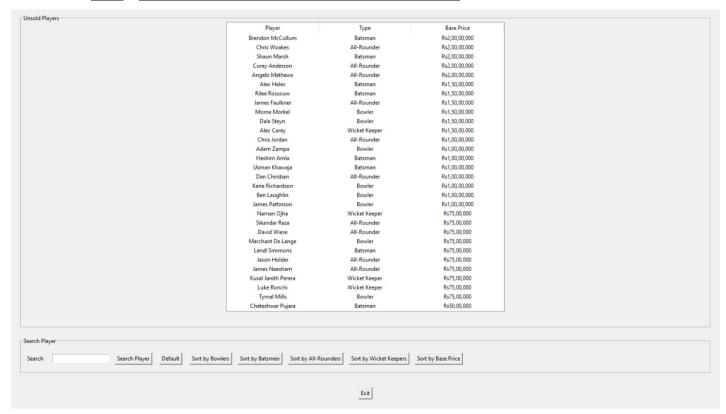
#### Sold players 2019(search by keyword):-



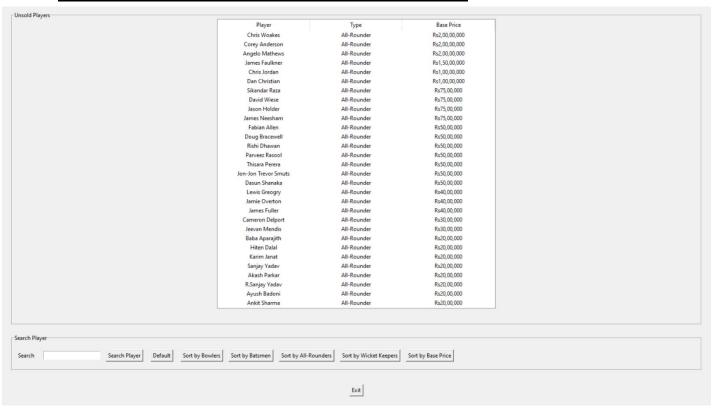
#### Sold players 2019(search by single player):-



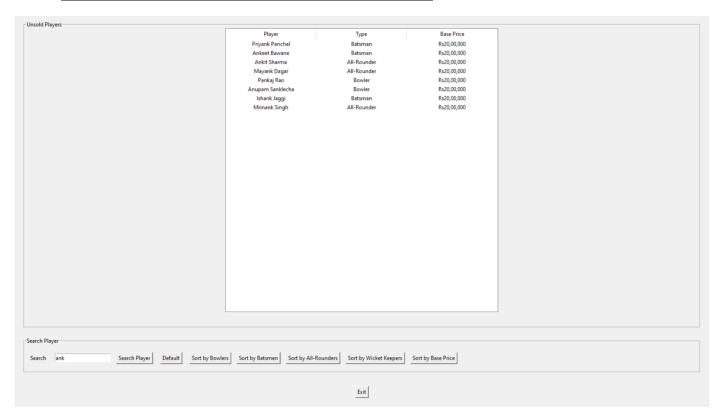
#### viii) Unsold players 2019(Auction Data):-



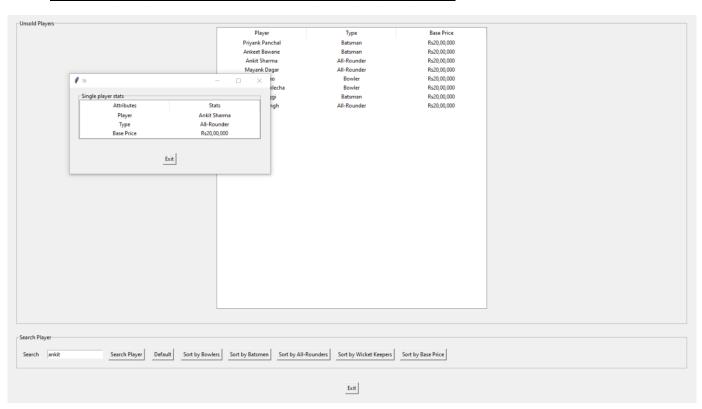
#### Unsold players 2019(Sorted by All-Rounders):-



#### Unsold players 2019(search by keyword):-



#### Unsold players 2019(search by single player):-



# **Bibliography**

## To Develop this project many references were used:-

- <a href="https://www.iplt20.com">https://www.iplt20.com</a>
- https://realpython.com/python-gui-tkinter/
- https://stackoverflow.com/
- https://www.geeksforgeeks.org/
- <a href="https://youtu.be/zK1H4etcb8M">https://youtu.be/zK1H4etcb8M</a>
- <a href="https://youtu.be/Jvul-wr-\_Bg">https://youtu.be/Jvul-wr-\_Bg</a>