

# CSE3086

## NoSQL

### Digital Assignment – 1

19MIA1104

T. VENKAT Reddy

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Q) Create menu driven application for IPL\_Statistics with minimum of 5 records in the collection by integrating python with MongoDB in Jupyter Notebook.

#### Working & Results:

##### Install pymongo

```
In [1]: !pip install pymongo
```

```
Collecting pymongo
  Downloading pymongo-4.2.0-cp38-cp38-win_amd64.whl (374 kB)
Installing collected packages: pymongo
Successfully installed pymongo-4.2.0
```

##### Integrate Python with MongoDB

```
In [2]: import pymongo
        pymongo.version
```

```
Out[2]: '4.2.0'
```

```
In [3]: from pymongo import MongoClient
        client = MongoClient("mongodb://localhost:27017/")
```

##### Create Collection named “collections”

```
In [4]: data = client.stdportal
        print(data)
        collections = data["IPL_Statistics"]
```

```
Database(MongoClient(host=['localhost:27017'], document_class=dict, tz_aware=False, connect=True), 'stdportal')
```

---

## Setting the action to be taken for the further process

```
In [9]: print("1. Insert a record")
        print("2. Delete a record")
        print("3. Find a record")
        print("4. Aggregate Operations")
        print("5. Update the table")
        print("6. Display the Database")
        optionselection = int(input("choose the required option to perform : "))
        while optionselection!=0:
```

## Step – 1: INSERTION/CREATE

Creating a Menu driven IPL\_Stastitics using the following Attributes

```
while optionselection!=0:
    if optionselection==1:
        id = input("Enter the Id of the match")
        city = input("Enter the Name of the city: ")
        date = input("Enter the date when match occurred: ")
        player_of_match = input("Enter the player_of_match in that match : ")
        venue = input("Enter venue of the match: ")
        team1 = input("Enter the team1 name: ")
        team2 = input("Enter the team2 name: ")
        winner = input("which team won the match: ")
        result = input("match won by runs or wickets in that match: ")
        result_margin = input("with how many runs or wickets a team won match by: ")
        umpire1 = input("Enter the umpire1 of that match: ")
        umpire2 = input("Enter the umpire2 of that match: ")
        ipl_details = {
            "id": id,
            "city": city,
            "date": date,
            "player_of_match": player_of_match,
            "venue": venue,
            "team1": team1,
            "team2": team2,
            "winner": winner,
            "result": result,
            "result_margin": result_margin,
            "umpire1": umpire1,
            "umpire2": umpire2,
        }
        collections.insert_one(ipl_details)
        print("Record Inserted Successfully")
```

## Process of Insertion

```
1. Insert a record
2. Delete a record
3. Find a record
4. Aggregate Operations
5. Update the table
6. Display the Database
choose the required option to perform : 1
Enter the Id of the match34527
Enter the Name of the city: Abu Dhabi
Enter the date when match occurred: 01-11-2020
Enter the player_of_match in that match : RD Gaikwad
Enter venue of the match: Sheikh Zayed Stadium
Enter the team1 name: Kings XI Punjab
Enter the team2 name: Chennai Super Kings
which team won the match: Chennai Super Kings
match won by runs or wickets in that match: wickets
with how many runs or wickets a team won match by: 9
Enter the umpire1 of that match: PG Pathak
Enter the umpire2 of that match: VK Sharma
Record Inserted Successfully
0. Exit
1. Insert
2. Delete
3. Find
4. Aggregate
5. Update
6. Display the Database
```

## Result after Insertion

```
Record Inserted Successfully
0. Exit
1. Insert
2. Delete
3. Find
4. Aggregate
5. Update
6. Display the Database
Choose one Option : 6
{'_id': ObjectId('634305ff8a29905651ad07dd'), 'id': '335983', 'city': 'Chennai', 'date': '23-04-2008', 'player_of_match': 'ML H
ayden', 'venue': 'MA Chidambaram Stadium, Chepauk', 'team1': 'Mumbai Indians', 'team2': 'Chennai Super Kings', 'winner': 'run
s', 'result': '6', 'result_margin': 'DJ Harper', 'umpire1': 'DJ Harper', 'umpire2': 'GA Pratap Kumar'}
{'_id': ObjectId('6343074e8a29905651ad07de'), 'id': '336036', 'city': 'Jaipur', 'date': '26-05-2008', 'player_of_match': 'Sohai
l Tanvir', 'venue': 'Sawai Mansingh Stadium', 'team1': 'Rajasthan Royals', 'team2': 'Mumbai Indians', 'winner': 'Rajasthan Roya
ls', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'BF Bowden', 'umpire2': 'K Hariharan'}
{'_id': ObjectId('634308428a29905651ad07df'), 'id': '336036', 'city': 'Hyderabad', 'date': '27-05-2008', 'player_of_match': 'Su
resh Raina', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Chennai Super Kings', 'team2': 'Deccan Chargers',
'winner': 'Chennai Super Kings', 'result': 'wickets', 'result_margin': '7', 'umpire1': 'BG Jerling', 'umpire2': 'AM Saheba'}
{'_id': ObjectId('63430ab58a29905651ad07e0'), 'id': '33701', 'city': 'Bangalore', 'date': '06-05-2011', 'player_of_match': 'CH
Gayle', 'venue': 'M Chinnaswamy Stadium', 'team1': 'Kolkata Knight Riders', 'team2': 'Royal Challengers Bangalore', 'winner':
'Royal Challengers Bangalore', 'result': 'wickets', 'result_margin': '9', 'umpire1': 'SS Hazare', 'umpire2': 'RB Tiffin'}
{'_id': ObjectId('63430bc48a29905651ad07e1'), 'id': '33723', 'city': 'Chandigarh', 'date': '08-05-2011', 'player_of_match': 'R
Sharma', 'venue': 'Punjab Cricket Association Stadium, Mohali', 'team1': 'Kings XI Punjab', 'team2': 'Pune Warriors', 'winner':
'Pune Warriors', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'SK Tarapore', 'umpire2': 'RJ Tucker'}
{'_id': ObjectId('63430da88a29905651ad07e2'), 'id': '33811', 'city': 'Delhi', 'date': '29-04-2012', 'player_of_match': 'V Sehwa
g', 'venue': 'Feroz Shah Kotla', 'team1': 'Delhi Daredevils', 'team2': 'Rajasthan Royals', 'winner': 'Delhi Daredevils', 'resul
t': 'runs', 'result_margin': '1', 'umpire1': 'S Ravi', 'umpire2': 'RJ Tucker'}
{'_id': ObjectId('63430e218a29905651ad07e3'), 'id': '33921', 'city': 'Hyderabad', 'date': '19-04-2013', 'player_of_match': 'GH
Vihari', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Kings XI Punjab', 'win
ner': 'Sunrisers Hyderabad', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CK Nandan'}
{'_id': ObjectId('63430e938a29905651ad07e4'), 'id': '33943', 'city': 'Pune', 'date': '30-04-2013', 'player_of_match': 'MS Dhoni', 'venue': 'Subrata Roy Sahara Stadium, Motera', 'team1': 'Pune Warriors', 'team2': 'Chennai Super Kings', 'winner': 'Chennai Super K
ings', 'result': 'runs', 'result_margin': '37', 'umpire1': 'S Das', 'umpire2': 'SJA Taufel'}
{'_id': ObjectId('63430f038a29905651ad07e5'), 'id': '34103', 'city': 'Ahmedabad', 'date': '05-05-2014', 'player_of_match': 'PV
Tambhe', 'venue': 'Sardar Patel Stadium, Motera', 'team1': 'Rajasthan Royals', 'team2': 'Kolkata Knight Riders', 'winner': 'Raja
sthan Royals', 'result': 'runs', 'result_margin': '10', 'umpire1': 'NJ Llong', 'umpire2': 'CK Nandan'}
{'_id': ObjectId('63430f8c8a29905651ad07e6'), 'id': '34253', 'city': 'Mumbai', 'date': '05-05-2015', 'player_of_match': 'Harbha
n Singh', 'venue': 'Wankhede Stadium', 'team1': 'Mumbai Indians', 'team2': 'Delhi Daredevils', 'winner': 'Mumbai Indians', 'r
```

```

c = runs, result_margin': 2, 'umpire1': 'S Nandan', 'umpire2': 'NS Rautela'}
{'_id': ObjectId('63430e218a29905651ad07e3'), 'id': '33921', 'city': 'Hyderabad', 'date': '19-04-2013', 'player_of_match': 'GH Vihari', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Kings XI Punjab', 'winner': 'Sunrisers Hyderabad', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CK Nandan'}}
{'_id': ObjectId('63430e938a29905651ad07e4'), 'id': '33943', 'city': 'Pune', 'date': '30-04-2013', 'player_of_match': 'MS Dhoni', 'venue': 'Subrata Roy Sahara Stadium', 'team1': 'Pune Warriors', 'team2': 'Chennai Super Kings', 'winner': 'Chennai Super Kings', 'result': 'runs', 'result_margin': '37', 'umpire1': 'S Das', 'umpire2': 'SJA Taufel'}}
{'_id': ObjectId('63430f038a29905651ad07e5'), 'id': '34103', 'city': 'Ahmedabad', 'date': '05-05-2014', 'player_of_match': 'PV Tambe', 'venue': 'Sardar Patel Stadium, Motera', 'team1': 'Rajasthan Royals', 'team2': 'Kolkata Knight Riders', 'winner': 'Rajasthan Royals', 'result': 'runs', 'result_margin': '10', 'umpire1': 'NJ Llong', 'umpire2': 'CK Nandan'}}
{'_id': ObjectId('63430f8c8a29905651ad07e6'), 'id': '34253', 'city': 'Mumbai', 'date': '05-05-2015', 'player_of_match': 'Harbhajan Singh', 'venue': 'Wankhede Stadium', 'team1': 'Mumbai Indians', 'team2': 'Delhi Daredevils', 'winner': 'Mumbai Indians', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CB Gaffaney'}}
{'_id': ObjectId('63430ff28a29905651ad07e7'), 'id': '34327', 'city': 'Visakhapatnam', 'date': '21-05-2016', 'player_of_match': 'MS Dhoni', 'venue': 'Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium', 'team1': 'Rising Pune Supergiants', 'team2': 'Kings XI Punjab', 'winner': 'Rising Pune Supergiants', 'result': 'wickets', 'result_margin': '4', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'Nitin Menon'}}
{'_id': ObjectId('634310598a29905651ad07e8'), 'id': '34431', 'city': 'Pune', 'date': '11-04-2017', 'player_of_match': 'SV Samson', 'venue': 'Maharashtra Cricket Association Stadium', 'team1': 'Rising Pune Supergiant', 'team2': 'Delhi Daredevils', 'winner': 'Delhi Daredevils', 'result': 'runs', 'result_margin': '97', 'umpire1': 'AY Dandekar', 'umpire2': 'S Ravi'}}
{'_id': ObjectId('634310bb8a29905651ad07e9'), 'id': '34562', 'city': 'Hyderabad', 'date': '07-05-2018', 'player_of_match': 'KS Williamson', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Royal Challengers Bangalore', 'winner': 'Sunrisers Hyderabad', 'result': 'runs', 'result_margin': '5', 'umpire1': 'BNJ Oxenford', 'umpire2': 'VK Sharma'}}
{'_id': ObjectId('63432a7a8a29905651ad07ea'), 'id': '34527', 'city': 'Abu Dhabi', 'date': '01-11-2020', 'player_of_match': 'RD Gaikwad', 'venue': 'Sheikh Zayed Stadium', 'team1': 'Kings XI Punjab', 'team2': 'Chennai Super Kings', 'winner': 'Chennai Super Kings', 'result': 'wickets', 'result_margin': '9', 'umpire1': 'PG Pathak', 'umpire2': 'VK Sharma'}}
0. Exit

```

## Step – 2: DELETE

Deletion of the ipl match using id number of that particular match.

```

elif optionselection==2:
    delete = input("Enter id of the match to be deleted: ")
    iplmatch_details = {"id" : delete}
    collections.delete_one(iplmatch_details)
    print("Record Deleted Successfully!")

```

### Process

```

0. Exit
1. Insert
2. Delete
3. Find
4. Aggregate
5. Update
6. Display the Database
Choose one Option : 2
Enter id of the match to be deleted: 335983
Record Deleted Successfully!

```

## Result After Deletion

6. Display the Database

Choose one Option : 6

```
{ '_id': ObjectId('6343074e8a29905651ad07de'), 'id': '336036', 'city': 'Jaipur', 'date': '26-05-2008', 'player_of_match': 'Sohail Tanvir', 'venue': 'Sawai Mansingh Stadium', 'team1': 'Rajasthan Royals', 'team2': 'Mumbai Indians', 'winner': 'Rajasthan Royals', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'BF Bowden', 'umpire2': 'K Hariharan' }
{ '_id': ObjectId('634308428a29905651ad07df'), 'id': '336036', 'city': 'Hyderabad', 'date': '27-05-2008', 'player_of_match': 'Suresh Raina', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Chennai Super Kings', 'team2': 'Deccan Chargers', 'winner': 'Chennai Super Kings', 'result': 'wickets', 'result_margin': '7', 'umpire1': 'BG Jerling', 'umpire2': 'AM Saheba' }
{ '_id': ObjectId('63430ab58a29905651ad07e0'), 'id': '33701', 'city': 'Bangalore', 'date': '06-05-2011', 'player_of_match': 'CH Gayle', 'venue': 'M Chinnaswamy Stadium', 'team1': 'Kolkata Knight Riders', 'team2': 'Royal Challengers Bangalore', 'winner': 'Royal Challengers Bangalore', 'result': 'wickets', 'result_margin': '9', 'umpire1': 'SS Hazare', 'umpire2': 'RB Tiffin' }
{ '_id': ObjectId('63430bc48a29905651ad07e1'), 'id': '33723', 'city': 'Chandigarh', 'date': '08-05-2011', 'player_of_match': 'R Sharma', 'venue': 'Punjab Cricket Association Stadium, Mohali', 'team1': 'Kings XI Punjab', 'team2': 'Pune Warriors', 'winner': 'Pune Warriors', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'SK Tarapore', 'umpire2': 'RJ Tucker' }
{ '_id': ObjectId('63430da88a29905651ad07e2'), 'id': '33811', 'city': 'Delhi', 'date': '29-04-2012', 'player_of_match': 'V Sehwag', 'venue': 'Feroz Shah Kotla', 'team1': 'Delhi Daredevils', 'team2': 'Rajasthan Royals', 'winner': 'Delhi Daredevils', 'result': 'runs', 'result_margin': '1', 'umpire1': 'S Ravi', 'umpire2': 'RJ Tucker' }
{ '_id': ObjectId('63430e218a29905651ad07e3'), 'id': '33921', 'city': 'Hyderabad', 'date': '19-04-2013', 'player_of_match': 'GH Vihari', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Kings XI Punjab', 'winner': 'Sunrisers Hyderabad', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CK Nandan' }
{ '_id': ObjectId('63430e938a29905651ad07e4'), 'id': '33943', 'city': 'Pune', 'date': '30-04-2013', 'player_of_match': 'MS Dhoni', 'venue': 'Subrata Roy Sahara Stadium', 'team1': 'Pune Warriors', 'team2': 'Chennai Super Kings', 'winner': 'Chennai Super Kings', 'result': 'runs', 'result_margin': '37', 'umpire1': 'S Das', 'umpire2': 'SJA Taufel' }
{ '_id': ObjectId('63430f038a29905651ad07e5'), 'id': '34103', 'city': 'Ahmedabad', 'date': '05-05-2014', 'player_of_match': 'PV Tambe', 'venue': 'Sardar Patel Stadium, Motera', 'team1': 'Rajasthan Royals', 'team2': 'Kolkata Knight Riders', 'winner': 'Rajasthan Royals', 'result': 'runs', 'result_margin': '10', 'umpire1': 'NJ Llong', 'umpire2': 'CK Nandan' }
{ '_id': ObjectId('63430f8c8a29905651ad07e6'), 'id': '34253', 'city': 'Mumbai', 'date': '05-05-2015', 'player_of_match': 'Harbhajan Singh', 'venue': 'Wankhede Stadium', 'team1': 'Mumbai Indians', 'team2': 'Delhi Daredevils', 'winner': 'Mumbai Indians', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CB Gaffaney' }
{ '_id': ObjectId('63430ff28a29905651ad07e7'), 'id': '34327', 'city': 'Visakhapatnam', 'date': '21-05-2016', 'player_of_match': 'MS Dhoni', 'venue': 'Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium', 'team1': 'Rising Pune Supergiants', 'team2': 'Kings XI Punjab', 'winner': 'Rising Pune Supergiants', 'result': 'wickets', 'result_margin': '4', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'Nitin Menon' }
{ '_id': ObjectId('634310598a29905651ad07e8'), 'id': '34431', 'city': 'Pune', 'date': '11-04-2017', 'player_of_match': 'SV Samson', 'venue': 'Maharashtra Cricket Association Stadium', 'team1': 'Rising Pune Supergiant', 'team2': 'Delhi Daredevils', 'winner': 'Delhi Daredevils', 'result': 'runs', 'result_margin': '97', 'umpire1': 'AY Dandekar', 'umpire2': 'S Ravi' }
{ '_id': ObjectId('634310bb8a29905651ad07e9'), 'id': '34562', 'city': 'Hyderabad', 'date': '07-05-2018', 'player_of_match': 'KS Williamson', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Royal Challengers Bangalore', 'winner': 'Sunrisers Hyderabad', 'result': 'runs', 'result_margin': '5', 'umpire1': 'BNJ Oxenford', 'umpire2': 'VK Sharma' }
{ '_id': ObjectId('63432a7a8a29905651ad07ea'), 'id': '34527', 'city': 'Abu Dhabi', 'date': '01-11-2020', 'player_of_match': 'RD Gaikwad', 'venue': 'Sheikh Zayed Stadium', 'team1': 'Kings XI Punjab', 'team2': 'Chennai Super Kings', 'winner': 'Chennai Super Kings', 'result': 'wickets', 'result_margin': '9', 'umpire1': 'PG Pathak', 'umpire2': 'VK Sharma' }
```



**We can see there is no record with the match id with 335983 as we deleted from the ipl match collection.**

## Step – 3: FIND

### Declaring Find Queries

```
elif optionselection==3:
    print("a. Find iplmatch_details by date")
    print("b. Find iplmatch_details by venue")
    print("c. Find iplmatch_details by umpire1")
    print("d. Find iplmatch_details by player_of_match")
    print("e. Find iplmatch_details by id")

    find_selection = input("Give your Choice: ")
    if find_selection=='a':
        find_selection = input("Enter the date to find details: ")
        ipl_details = {"date" : find_selection}
        collection1 = collections.find(ipl_details)
        for x in collection1:
            print(x)
    elif find_selection=='b':
        find_selection = input("Enter the venue to find details: ")
        ipl_details = {"venue" : find_selection}
        collection1 = collections.find(ipl_details)
        for x in collection1:
            print(x)
    elif find_selection=='c':
        find_selection = input("Enter the umpire1 to find the details: ")
        ipl_details = {"umpire1" : find_selection}
        collection1 = collections.find(ipl_details)
        for x in collection1:
            print(x)
    elif find_selection=='d':
        find_selection = input("Enter the player_of_match to find details: ")
        ipl_details = {"player_of_match" : find_selection}
        collection1 = collections.find(ipl_details)
        for x in collection1:
            print(x)
    elif find_selection=='e':
        find_selection = input("Enter id to find details: ")
        ipl_details = {"id" : find_selection}
        collection1 = collections.find(ipl_details)
        for x in collection1:
            print(x)
```

## Process & Results of Find Operations

Find the IPL details with their date and venue in the below image respectively

 We find out the ipl match details with help of the date

Below we listed match occur on 19-04-2013

```
0. Exit
1. Insert
2. Delete
3. Find
4. Aggregate
5. Update
6. Display the Database

Choose one Option : 3
a. Find iplmatch_details by date
b. Find iplmatch_details by venue
c. Find iplmatch_details by umpire1
d. Find iplmatch_details by player_of_match
e. Find iplmatch_details by id
Give your Choice: a
Enter the date to find details: 19-04-2013
{'_id': ObjectId('63430e218a29905651ad07e3'), 'id': '33921', 'city': 'Hyderaba
d', 'date': '19-04-2013', 'player_of_match': 'GH Vihari', 'venue': 'Rajiv Gandh
i International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'King
s XI Punjab', 'winner': 'Sunrisers Hyderabad', 'result': 'wickets', 'result_mar
gin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CK Nandan'}
0. Exit
1. Insert
2. Delete
3. Find
4. Aggregate
5. Update
6. Display the Database
```

 We find out the ipl match details with help of the venue

Below we listed matches occur in M Chinnaswamy Stadium.

```
Choose one Option : 3
a. Find iplmatch_details by date
b. Find iplmatch_details by venue
c. Find iplmatch_details by umpire1
d. Find iplmatch_details by player_of_match
e. Find iplmatch_details by id
Give your Choice: b
Enter the venue to find details: M Chinnaswamy Stadium
{'_id': ObjectId('63430ab58a29905651ad07e0'), 'id': '33701', 'city': 'Bangalore', 'date': '06-05-2011', 'player_of_match': 'CH
Gayle', 'venue': 'M Chinnaswamy Stadium', 'team1': 'Kolkata Knight Riders', 'team2': 'Royal Challengers Bangalore', 'winner':
'Royal Challengers Bangalore', 'result': 'wickets', 'result_margin': '9', 'umpire1': 'SS Hazare', 'umpire2': 'RB Tiffin'}
```





## Finding IPL matches details by umpire named as HDPK Dharmasena

```

1. Insert a record
2. Delete a record
3. Find a record
4. Aggregate Operations
5. Update the table
6. Display the Database
choose the required option to perform : 3
a. Find iplmatch_details by date
b. Find iplmatch_details by venue
c. Find iplmatch_details by umpire1
d. Find iplmatch_details by player_of_match
e. Find iplmatch_details by id
Give your Choice: c
Enter the umpire1 to find the details: HDPK Dharmasena
{'_id': ObjectId('63430e218a29905651ad07e3'), 'id': '33921', 'city': 'Hyderabad', 'date': '19-04-2013', 'player_of_match': 'GH Vihari', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Kings XI Punjab', 'winner': 'Sunrisers Hyderabad', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CK Nandan'}
{'_id': ObjectId('63430f8c8a29905651ad07e6'), 'id': '34253', 'city': 'Mumbai', 'date': '05-05-2015', 'player_of_match': 'Harbhajan Singh', 'venue': 'Wankhede Stadium', 'team1': 'Mumbai Indians', 'team2': 'Delhi Daredevils', 'winner': 'Mumbai Indians', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CB Gaffaney'}
{'_id': ObjectId('63430ff28a29905651ad07e7'), 'id': '34327', 'city': 'Visakhapatnam', 'date': '21-05-2016', 'player_of_match': 'MS Dhoni', 'venue': 'Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium', 'team1': 'Rising Pune Supergiants', 'team2': 'Kings XI Punjab', 'winner': 'Rising Pune Supergiants', 'result': 'wickets', 'result_margin': '4', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'Nitin Menon'}
--_--

```



## Find the IPL details with the no of player\_of match won by MS Dhoni in the below image respectively

```

1. Insert a record
2. Delete a record
3. Find a record
4. Aggregate Operations
5. Update the table
6. Display the Database
choose the required option to perform : 3
a. Find iplmatch_details by date
b. Find iplmatch_details by venue
c. Find iplmatch_details by umpire1
d. Find iplmatch_details by player_of_match
e. Find iplmatch_details by id
Give your Choice: d
Enter the player_of_match to find details: MS Dhoni
{'_id': ObjectId('63430e938a29905651ad07e4'), 'id': '33943', 'city': 'Pune', 'date': '30-04-2013', 'player_of_match': 'MS Dhoni', 'venue': 'Subrata Roy Sahara Stadium', 'team1': 'Pune Warriors', 'team2': 'Chennai Super Kings', 'winner': 'Chennai Super Kings', 'result': 'runs', 'result_margin': '37', 'umpire1': 'S Das', 'umpire2': 'SJA Taufel'}
{'_id': ObjectId('63430ff28a29905651ad07e7'), 'id': '34327', 'city': 'Visakhapatnam', 'date': '21-05-2016', 'player_of_match': 'MS Dhoni', 'venue': 'Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium', 'team1': 'Rising Pune Supergiants', 'team2': 'Kings XI Punjab', 'winner': 'Rising Pune Supergiants', 'result': 'wickets', 'result_margin': '4', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'Nitin Menon'}

```



## Same as with id we find out the ipl match details in the below image respectively

```

a. Find iplmatch_details by date
b. Find iplmatch_details by venue
c. Find iplmatch_details by umpire1
d. Find iplmatch_details by player_of_match
e. Find iplmatch_details by id
Give your Choice: e
Enter id to find details: 34527
{'_id': ObjectId('63432a7a8a29905651ad07ea'), 'id': '34527', 'city': 'Abu Dhabi', 'date': '01-11-2020', 'player_of_match': 'RD Gaikwad', 'venue': 'Sheikh Zayed Stadium', 'team1': 'Kings XI Punjab', 'team2': 'Chennai Super Kings', 'winner': 'Chennai Super Kings', 'result': 'wickets', 'result_margin': '9', 'umpire1': 'PG Pathak', 'umpire2': 'VK Sharma'}

```



## Step – 4: AGGREGATION

### Declaration of Aggregation queries

```
elif optionselection==4:
    print("a. Aggregate to see number of matches in each city")
    print("b. How many matches have won by wickets or runs")
    print("c. Aggregation to sort the venues Hyderabad ")
    find_selection = input("Give your choice: ")
    if find_selection=='a':
        city = collections.aggregate([{"$group": {"_id": "$city", "total": {"$sum": 1}}}])
        for m in city:
            print(m)
    elif find_selection=='b':
        result = collections.aggregate([{"$group": {"_id": "$result", "total": {"$sum": 1}}}])
        for n in result:
            print(n)
    elif find_selection=='c':
        sort = collections.aggregate([{"$match": {"city": "Hyderabad"}}, {"$sort": {"venue": 1}}])
        for o in sort:
            print(o)
```

### Process & Results of Aggregation Operations

#### a. Aggregate to see number of matches in each city

```
0. Exit
1. Insert
2. Delete
3. Find
4. Aggregate
5. Update
6. Display the Database
Choose one Option : 4
a. Aggregate to see number of matches in each city
b. How many matches have won by wickets or runs
c. Aggregation to sort the venues Hyderabad
Give your choice: a
{'_id': 'Pune', 'total': 2}
{'_id': 'Chandigarh', 'total': 1}
{'_id': 'Ahmedabad', 'total': 1}
{'_id': 'Jaipur', 'total': 1}
{'_id': 'Abu Dhabi', 'total': 1}
{'_id': 'Hyderabad', 'total': 3}
{'_id': 'Delhi', 'total': 1}
{'_id': 'Visakhapatnam', 'total': 1}
{'_id': 'Bangalore', 'total': 1}
{'_id': 'Mumbai', 'total': 1}
```

## b. How many matches have won by wickets or runs

- a. Aggregate to see number of matches in each city
- b. How many matches have won by wickets or runs
- c. Aggregation to sort the venues Hyderabad

Give your choice: b

```
{ '_id': 'runs', 'total': 5 }
{ '_id': 'wickets', 'total': 8 }
```

## C. Aggregation to sort the venues Hyderabad

- a. Aggregate to see number of matches in each city
- b. How many matches have won by wickets or runs
- c. Aggregation to sort the venues Hyderabad

Give your choice: c

```
{ '_id': ObjectId('634308428a29905651ad07df'), 'id': '336036', 'city': 'Hyderabad', 'date': '27-05-2008', 'player_of_match': 'Suresh Raina', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Chennai Super Kings', 'team2': 'Deccan Chargers', 'winner': 'Chennai Super Kings', 'result': 'wickets', 'result_margin': '7', 'umpire1': 'BG Jerling', 'umpire2': 'AM Saheba' }
{ '_id': ObjectId('63430e218a29905651ad07e3'), 'id': '33921', 'city': 'Hyderabad', 'date': '19-04-2013', 'player_of_match': 'GH Vihari', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Kings XI Punjab', 'winner': 'Sunrisers Hyderabad', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CK Nandan' }
{ '_id': ObjectId('634310bb8a29905651ad07e9'), 'id': '34562', 'city': 'Hyderabad', 'date': '07-05-2018', 'player_of_match': 'KS Williamson', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Royal Challengers Bangalore', 'winner': 'Sunrisers Hyderabad', 'result': 'runs', 'result_margin': '5', 'umpire1': 'BNJ Oxenford', 'umpire2': 'VK Sharma' }
```

## Step – 5: UPDATE

### Declaring Update Queries

```
elif optionselection==5:
    print("a. Update the venue by id")
    print("b. Update the team1 by id")
    print("c. Update the city by id")
    find_selection = input("Give your choice")
    if find_selection=='a':
        find_selection = input("Enter the id has to update: ")
        iplid_record1 = {"id" : find_selection}
        set_venueplace = input("Enter the new venue: ")
        venue_record2 = {"$set": { "venue": set_venueplace }}
        collection1 = collections.update_many(iplid_record1,venue_record2)
        print(collection1)
    elif find_selection=='b':
        find_selection = input("Enter the id you wish to update: ")
        iplid_record1 = {"id" : find_selection}
        set_team1name = input("Enter the updated team1: ")
        team1name_record2 = {"$set": { "team1": set_team1name }}
        collection1 = collections.update_many(iplid_record1, team1name_record2)
        print(collection1)
    elif find_selection=='c':
        find_selection = input("Enter the id you wish to update: ")
        iplid_record1 = {"id" : find_selection}
        set_cityname = input("Enter the updated city: ")
        cityname_record2 = {"$set": { "city": set_cityname }}
        collection1 = collections.update_many(iplid_record1, cityname_record2)
        print(collection1)
```

### Process: -

- a. Update the venue by id
- b. Update the team1 by id
- c. Update the city by id

a

```
1. Insert a record
2. Delete a record
3. Find a record
4. Aggregate Operations
5. Update the table
6. Display the Database
choose the required option to perform : 5
a. Update the venue by id
b. Update the team1 by id
c. Update the city by id
Give your choicea
Enter the id has to update: 336036
Enter the new venue: Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium
<pymongo.results.UpdateResult object at 0x000002179B3A1760>
```

b

```
6. Display the Database
Choose one Option : 5
a. Update the venue by id
b. Update the team1 by id
c. Update the city by id
Give your choiceb
Enter the id you wish to update: 33723
Enter the updated team1: Gujarat Lions
<pymongo.results.UpdateResult object at 0x000002179B3A1610>
```

c

```
a. Update the venue by id
b. Update the team1 by id
c. Update the city by id
Give your choicec
Enter the id you wish to update: 34527
Enter the updated city: Dubai
<pymongo.results.UpdateResult object at 0x000002179B3A1220>
```

### Result after updating the collection

- a. By updating the venue by id here in that above picture we updated Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium venue instead of Rajiv Gandhi International Stadium, Uppal Stadium venue.
- b. By updating the team1 by using id here in that above picture we updated Gujarat Lions team instead of Kings XI Punjab team.

c. By updating the city by using id here in the above picture we updated Dubai instead of Abu Dhabi.

The updated collection is below image

```
1. Insert
2. Delete
3. Find
4. Aggregate
5. Update
6. Display the Database
Choose one Option : 6
{'_id': ObjectId('6343074e8a29905651ad07de'), 'id': '336036', 'city': 'Jaipur', 'date': '26-05-2008', 'player_of_match': 'Sohail Tanvir', 'venue': 'Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium', 'team1': 'Rajasthan Royals', 'team2': 'Mumbai Indians', 'winner': 'Rajasthan Royals', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'BF Bowden', 'umpire2': 'K Hariharan'}
{'_id': ObjectId('634308428a29905651ad07df'), 'id': '336036', 'city': 'Hyderabad', 'date': '27-05-2008', 'player_of_match': 'Suresh Raina', 'venue': 'Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium', 'team1': 'Chennai Super Kings', 'team2': 'Deccan Chargers', 'winner': 'Chennai Super Kings', 'result': 'wickets', 'result_margin': '7', 'umpire1': 'BG Jerling', 'umpire2': 'AM Saheba'}
{'_id': ObjectId('63430ab58a29905651ad07e0'), 'id': '33701', 'city': 'Bangalore', 'date': '06-05-2011', 'player_of_match': 'CH Gayle', 'venue': 'M Chinnaswamy Stadium', 'team1': 'Kolkata Knight Riders', 'team2': 'Royal Challengers Bangalore', 'winner': 'Royal Challengers Bangalore', 'result': 'wickets', 'result_margin': '9', 'umpire1': 'SS Hazare', 'umpire2': 'RB Tiffin'}
{'_id': ObjectId('63430bc48a29905651ad07e1'), 'id': '33723', 'city': 'Chandigarh', 'date': '08-05-2011', 'player_of_match': 'R Sharma', 'venue': 'Punjab Cricket Association Stadium, Mohali', 'team1': 'Gujarat Lions', 'team2': 'Pune Warriors', 'winner': 'Pune Warriors', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'SK Tarapore', 'umpire2': 'RJ Tucker'}
{'_id': ObjectId('63430da88a29905651ad07e2'), 'id': '33811', 'city': 'Delhi', 'date': '29-04-2012', 'player_of_match': 'V Sehwag', 'venue': 'Feroz Shah Kotla', 'team1': 'Delhi Daredevils', 'team2': 'Rajasthan Royals', 'winner': 'Delhi Daredevils', 'result': 'runs', 'result_margin': '1', 'umpire1': 'S Ravi', 'umpire2': 'RJ Tucker'}
{'_id': ObjectId('63430e218a29905651ad07e3'), 'id': '33921', 'city': 'Hyderabad', 'date': '19-04-2013', 'player_of_match': 'GH Vihari', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Kings XI Punjab', 'winner': 'Sunrisers Hyderabad', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CK Nandan'}
{'_id': ObjectId('63430e938a29905651ad07e4'), 'id': '33943', 'city': 'Pune', 'date': '30-04-2013', 'player_of_match': 'MS Dhoni', 'venue': 'Subrata Roy Sahara Stadium', 'team1': 'Pune Warriors', 'team2': 'Chennai Super Kings', 'winner': 'Chennai Super Kings', 'result': 'runs', 'result_margin': '37', 'umpire1': 'S Das', 'umpire2': 'SJA Taufel'}
{'_id': ObjectId('63430f038a29905651ad07e5'), 'id': '34103', 'city': 'Ahmedabad', 'date': '05-05-2014', 'player_of_match': 'PV Tambe', 'venue': 'Sardar Patel Stadium, Motera', 'team1': 'Rajasthan Royals', 'team2': 'Kolkata Knight Riders', 'winner': 'Rajasthan Royals', 'result': 'runs', 'result_margin': '10', 'umpire1': 'NJ Llong', 'umpire2': 'CK Nandan'}
{'_id': ObjectId('63430f8c8a29905651ad07e6'), 'id': '34253', 'city': 'Mumbai', 'date': '05-05-2015', 'player_of_match': 'Harbhajan Singh', 'venue': 'Wankhede Stadium', 'team1': 'Mumbai Indians', 'team2': 'Delhi Daredevils', 'winner': 'Mumbai Indians', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CB Gaffaney'}
{'_id': ObjectId('63430ff28a29905651ad07e7'), 'id': '34327', 'city': 'Visakhapatnam', 'date': '21-05-2016', 'player_of_match': 'MS Dhoni', 'venue': 'Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium', 'team1': 'Rising Pune Supergiants', 'team2': 'Kings XI Punjab', 'winner': 'Rising Pune Supergiants', 'result': 'wickets', 'result_margin': '4', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'Nitin Menon'}
{'_id': ObjectId('634310598a29905651ad07e8'), 'id': '34431', 'city': 'Pune', 'date': '11-04-2017', 'player_of_match': 'SV Samson', 'venue': 'Maharashtra Cricket Association Stadium', 'team1': 'Rising Pune Supergiant', 'team2': 'Delhi Daredevils', 'winner': 'Delhi Daredevils', 'result': 'runs', 'result_margin': '97', 'umpire1': 'AY Dandekar', 'umpire2': 'S Ravi'}
{'_id': ObjectId('634310bb8a29905651ad07e9'), 'id': '34562', 'city': 'Hyderabad', 'date': '07-05-2018', 'player_of_match': 'KS Williamson', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Royal Challengers Bangalore', 'winner': 'Sunrisers Hyderabad', 'result': 'runs', 'result_margin': '5', 'umpire1': 'BNJ Oxenford', 'umpire2': 'VK Sharma'}
{'_id': ObjectId('63432a7a8a29905651ad07ea'), 'id': '34527', 'city': 'Dubai', 'date': '01-11-2020', 'player_of_match': 'RD Gaikwad', 'venue': 'Sheikh Zayed Stadium', 'team1': 'Kings XI Punjab', 'team2': 'Chennai Super Kings', 'winner': 'Chennai Super Kings', 'result': 'wickets', 'result_margin': '9', 'umpire1': 'PG Pathak', 'umpire2': 'VK Sharma'}
```

## Step – 6: DISPLAYING THE FINAL COLLECTION

Creating displaying option and making sure that after every step there should a popup message for what we have to do further

```
elif optionselection==6:
    for X in collections.find():
        print(X)

print("0. Exit")
print("1. Insert")
print("2. Delete")
print("3. Find")
print("4. Aggregate")
print("5. Update")
print("6. Display the Database")
optionselection = int(input("Choose one Option : "))
```

## Final Collection after performing all the CRUD operations to the given collection

```
1. Insert
2. Delete
3. Find
4. Aggregate
5. Update
6. Display the Database
Choose one Option : 6
{'_id': ObjectId('6343074e8a29905651ad07de'), 'id': '336036', 'city': 'Jaipur', 'date': '26-05-2008', 'player_of_match': 'Sohail Tanvir', 'venue': 'Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium', 'team1': 'Rajasthan Royals', 'team2': 'Mumbai Indians', 'winner': 'Rajasthan Royals', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'BF Bowden', 'umpire2': 'K Hariharan'}
{'_id': ObjectId('634308428a29905651ad07df'), 'id': '336036', 'city': 'Hyderabad', 'date': '27-05-2008', 'player_of_match': 'Suresh Raina', 'venue': 'Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium', 'team1': 'Chennai Super Kings', 'team2': 'Deccan Chargers', 'winner': 'Chennai Super Kings', 'result': 'wickets', 'result_margin': '7', 'umpire1': 'BG Jerling', 'umpire2': 'AM Saheba'}
{'_id': ObjectId('63430ab58a29905651ad07e0'), 'id': '33701', 'city': 'Bangalore', 'date': '06-05-2011', 'player_of_match': 'CH Gayle', 'venue': 'M Chinnaswamy Stadium', 'team1': 'Kolkata Knight Riders', 'team2': 'Royal Challengers Bangalore', 'winner': 'Royal Challengers Bangalore', 'result': 'wickets', 'result_margin': '9', 'umpire1': 'SS Hazare', 'umpire2': 'RB Tiffin'}
{'_id': ObjectId('63430bc48a29905651ad07e1'), 'id': '33723', 'city': 'Chandigarh', 'date': '08-05-2011', 'player_of_match': 'R Sharma', 'venue': 'Punjab Cricket Association Stadium, Mohali', 'team1': 'Gujarat Lions', 'team2': 'Pune Warriors', 'winner': 'Pune Warriors', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'SK Tarapore', 'umpire2': 'RJ Tucker'}
{'_id': ObjectId('63430da88a29905651ad07e2'), 'id': '33811', 'city': 'Delhi', 'date': '29-04-2012', 'player_of_match': 'V Sehwag', 'venue': 'Feroz Shah Kotla', 'team1': 'Delhi Daredevils', 'team2': 'Rajasthan Royals', 'winner': 'Delhi Daredevils', 'result': 'runs', 'result_margin': '1', 'umpire1': 'S Ravi', 'umpire2': 'RJ Tucker'}
{'_id': ObjectId('63430e218a29905651ad07e3'), 'id': '33921', 'city': 'Hyderabad', 'date': '19-04-2013', 'player_of_match': 'GH Vihari', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Kings XI Punjab', 'winner': 'Sunrisers Hyderabad', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CK Nandan'}
{'_id': ObjectId('63430e938a29905651ad07e4'), 'id': '33943', 'city': 'Pune', 'date': '30-04-2013', 'player_of_match': 'MS Dhoni', 'venue': 'Subrata Roy Sahara Stadium', 'team1': 'Pune Warriors', 'team2': 'Chennai Super Kings', 'winner': 'Chennai Super Kings', 'result': 'runs', 'result_margin': '37', 'umpire1': 'S Das', 'umpire2': 'SJA Taufel'}
{'_id': ObjectId('63430f038a29905651ad07e5'), 'id': '34103', 'city': 'Ahmedabad', 'date': '05-05-2014', 'player_of_match': 'PV Tambe', 'venue': 'Sardar Patel Stadium, Motera', 'team1': 'Rajasthan Royals', 'team2': 'Kolkata Knight Riders', 'winner': 'Rajasthan Royals', 'result': 'runs', 'result_margin': '10', 'umpire1': 'NJ Llong', 'umpire2': 'CK Nandan'}
{'_id': ObjectId('63430f8c8a29905651ad07e6'), 'id': '34253', 'city': 'Mumbai', 'date': '05-05-2015', 'player_of_match': 'Harbhajan Singh', 'venue': 'Wankhede Stadium', 'team1': 'Mumbai Indians', 'team2': 'Delhi Daredevils', 'winner': 'Mumbai Indians', 'result': 'wickets', 'result_margin': '5', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'CB Gaffaney'}
{'_id': ObjectId('63430ff28a29905651ad07e7'), 'id': '34327', 'city': 'Visakhapatnam', 'date': '21-05-2016', 'player_of_match': 'MS Dhoni', 'venue': 'Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium', 'team1': 'Rising Pune Supergiants', 'team2': 'Kings XI Punjab', 'winner': 'Rising Pune Supergiants', 'result': 'wickets', 'result_margin': '4', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'RJ Tucker'}
```

```
{ '_id': ObjectId('63430ff28a29905651ad07e7'), 'id': '34327', 'city': 'Visakhapatnam', 'date': '21-05-2016', 'player_of_match': 'MS Dhoni', 'venue': 'Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium', 'team1': 'Rising Pune Supergiants', 'team2': 'Kings XI Punjab', 'winner': 'Rising Pune Supergiants', 'result': 'wickets', 'result_margin': '4', 'umpire1': 'HDPK Dharmasena', 'umpire2': 'Nitin Menon' }
{ '_id': ObjectId('634310598a29905651ad07e8'), 'id': '34431', 'city': 'Pune', 'date': '11-04-2017', 'player_of_match': 'SV Samson', 'venue': 'Maharashtra Cricket Association Stadium', 'team1': 'Rising Pune Supergiant', 'team2': 'Delhi Daredevils', 'winner': 'Delhi Daredevils', 'result': 'runs', 'result_margin': '97', 'umpire1': 'AY Dandekar', 'umpire2': 'S Ravi' }
{ '_id': ObjectId('634310bb8a29905651ad07e9'), 'id': '34562', 'city': 'Hyderabad', 'date': '07-05-2018', 'player_of_match': 'KS Williamson', 'venue': 'Rajiv Gandhi International Stadium, Uppal', 'team1': 'Sunrisers Hyderabad', 'team2': 'Royal Challengers Bangalore', 'winner': 'Sunrisers Hyderabad', 'result': 'runs', 'result_margin': '5', 'umpire1': 'BNJ Oxenford', 'umpire2': 'VK Sharma' }
{ '_id': ObjectId('63432a7a8a29905651ad07ea'), 'id': '34527', 'city': 'Dubai', 'date': '01-11-2020', 'player_of_match': 'RD Gaikwad', 'venue': 'Sheikh Zayed Stadium', 'team1': 'Kings XI Punjab', 'team2': 'Chennai Super Kings', 'winner': 'Chennai Super Kings', 'result': 'wickets', 'result_margin': '9', 'umpire1': 'PG Pathak', 'umpire2': 'VK Sharma' }
```

## Menu Driven Code for Implementing IPL\_Statistics inPymongo

```
print("1. Insert a record")
print("2. Delete a record")
print("3. Find a record")
print("4. Aggregate Operations")
print("5. Update the table")
print("6. Display the Database")
optionselection = int(input("choose the required option to perform : "))
while optionselection!=0:
    if optionselection==1:
        id = input("Enter the Id of the match")
        city = input("Enter the Name of the city: ")
        date = input("Enter the date when match occurred: ")
        player_of_match = input("Enter the player_of_match in that match : ")
        venue = input("Enter venue of the match: ")
        team1 = input("Enter the team1 name: ")
        team2 = input("Enter the team2 name: ")
        winner = input("which team won the match: ")
        result = input("match won by runs or wickets in that match: ")
        result_margin = input("with how many runs or wickets a team won match by: ")
        umpire1 = input("Enter the umpire1 of that match: ")
        umpire2 = input("Enter the umpire2 of that match: ")
        ipl_details = {
            "id": id,
            "city": city,
            "date": date,
            "player_of_match": player_of_match,
            "venue": venue,
            "team1": team1,
            "team2": team2,
            "winner": winner,
            "result": result,
            "result_margin": result_margin,
            "umpire1": umpire1,
```

```
"umpire2": umpire2,  
}  
collections.insert_one(ipl_details)  
print("Record Inserted Successfully")
```

```
elif optionselection==2:  
    delete = input("Enter id of the match to be deleted: ")  
    iplmatch_details = {"id" : delete}  
    collections.delete_one(iplmatch_details)  
    print("Record Deleted Successfully!")
```

```
elif optionselection==3:  
    print("a. Find iplmatch_details by date")  
    print("b. Find iplmatch_details by venue")  
    print("c. Find iplmatch_details by umpire1")  
    print("d. Find iplmatch_details by player_of_match")  
    print("e. Find iplmatch_details by id")
```

```
find_selection = input("Give your Choice: ")  
if find_selection=='a':  
    find_selection = input("Enter the date to find details: ")  
    ipl_details = {"date" : find_selection}  
    collection1 = collections.find(ipl_details)  
    for x in collection1:  
        print(x)  
elif find_selection=='b':  
    find_selection = input("Enter the venue to find details: ")  
    ipl_details = {"venue" : find_selection}  
    collection1 = collections.find(ipl_details)  
    for x in collection1:  
        print(x)  
elif find_selection=='c':  
    find_selection = input("Enter the umpire1 to find the details: ")  
    ipl_details = {"umpire1" : find_selection}  
    collection1 = collections.find(ipl_details)  
    for x in collection1:  
        print(x)  
elif find_selection=='d':  
    find_selection = input("Enter the player_of_match to find details: ")  
    ipl_details = {"player_of_match" : find_selection}  
    collection1 = collections.find(ipl_details)  
    for x in collection1:
```



```

        print(x)
    elif find_selection=='e':
        find_selection = input("Enter id to find details: ")
        ipl_details = {"id" : find_selection}
        collection1 = collections.find(ipl_details)
        for x in collection1:
            print(x)

elif optionselection==4:
    print("a. Aggregate to see number of matches in each city")
    print("b. How many matches have won by wickets or runs")
    print("c. Aggregation to sort the venues Hyderabad ")
    find_selection = input("Give your choice: ")
    if find_selection=='a':
        city = collections.aggregate([{"$group" : {"_id" : "$city", "total" : {"$sum" :
1}}}})
        for m in city:
            print(m)
    elif find_selection=='b':
        result = collections.aggregate([{"$group": {"_id": "$result",
"total": {"$sum": 1}}}})
        for n in result:
            print(n)
    elif find_selection=='c':
        sort =
collections.aggregate([{"$match": {"city": "Hyderabad"}}, {"$sort": {"venue": 1}}])
        for o in sort:
            print(o)

elif optionselection==5:
    print("a. Update the venue by id")
    print("b. Update the team1 by id")
    print("c. Update the city by id")
    find_selection = input("Give your choice")
    if find_selection=='a':
        find_selection = input("Enter the id has to update: ")
        iplid_record1 = {"id" : find_selection}
        set_venueplace = input("Enter the new venue: ")
        venue_record2 = {"$set": { "venue": set_venueplace }}
        collection1 = collections.update_many(iplid_record1,venue_record2)
        print(collection1)
    elif find_selection=='b':
        find_selection = input("Enter the id you wish to update: ")

```

```

        iplid_record1 = {"id" : find_selection}
        set_team1name = input("Enter the updated team1: ")
        team1name_record2 = {"$set": { "team1": set_team1name }}
        collection1 = collections.update_many(iplid_record1, team1name_record2)
        print(collection1)
    elif find_selection=='c':
        find_selection = input("Enter the id you wish to update: ")
        iplid_record1 = {"id" : find_selection}
        set_cityname = input("Enter the updated city: ")
        cityname_record2 = {"$set": { "city": set_cityname}}
        collection1 = collections.update_many(iplid_record1, cityname_record2)
        print(collection1)
    elif optionselection==6:
        for X in collections.find():
            print(X)

print("0. Exit")
print("1. Insert")
print("2. Delete")
print("3. Find")
print("4. Aggregate")
print("5. Update")
print("6. Display the Database")
optionselection = int(input("Choose one Option : "))

```

\*\*\*\*\*THANK YOU MAM\*\*\*\*\*