

## Introduction

**Fantasy Cricket** is an online game where you create a virtual team of real cricket players and score points depending on how your chosen players perform in real-life matches. To win a tournament, you must try and get the maximum points and the No. 1 rank amongst other participants. Here's how a Fantasy Cricket game may look like.

The screenshot shows the 'ManageTeams' interface. At the top, there's a 'Your Selections' bar with four categories: 'Batsmen (BAT) ##', 'Bowlers (BOW) ##', 'Allrounders (AR) ##', and 'Wicket-keeper (WK) ##'. Below this, there are two main panels. The left panel is titled 'Points Available ####' and contains four radio buttons: 'BAT', 'BOW', 'AR', and 'WK'. The right panel is titled 'Points Used ####' and contains a text input field labeled 'Team Name' with a placeholder 'Displayed Here'. A right-pointing arrow (>) is positioned between the two panels.

1 - Opening screen of the application. You can see the players of each category by selecting the category. To begin with, the selection is disabled until a new team is created from the Manage Teams menu. A pop up asking the name of the team appears.

This screenshot shows the same 'ManageTeams' interface as the previous one, but with a dropdown menu open under the 'ManageTeams' header. The menu contains four options: 'NEW Team', 'OPEN Team', 'SAVE Team', and 'EVALUATE Team'. The 'Points Available ####' and 'Points Used ####' sections remain visible in the background.

2 - The toolbar menu options which allow you to create a new team, open an existing team, save your team and finally evaluate the score of a saved team.

ManageTeams

Your Selections

Batsmen (BAT) 0
Bowlers (BOW) 0
Allrounders (AR) 0
Wicket-keeper (WK) 0

Points Available 1000

☒ BAT
☐ BOW
☐ AR
☐ WK

Virat Kohli  
Shikhar Dhawan  
Rohit Sharma  
Ajinkya Rahane  
Yuvraj Singh

Points Used 0

Team Name Internshala11

3 - After clicking New Team, the left box is populated with player names. As you select a different category, the corresponding list of players is displayed.

ManageTeams

Your Selections

Batsmen (BAT) 4
Bowlers (BOW) 3
Allrounders (AR) 3
Wicket-keeper (WK) 1

Points Available 50

☒ BAT
☐ BOW
☐ AR
☐ WK

Rohit Sharma

Points Used 950

Team Name Internshala11

Virat Kohli  
Shikhar Dhawan  
Ajinkya Rahane  
Yuvraj Singh  
Bhuvneshwar Kumar  
Umesh Yadav  
Kedar Jadhav  
Hardik Pandya  
M.S.Dhoni  
Ravindra Jadeja  
Jasprit Bumrah

4 - On double-clicking each player name, the right box gets populated. Points available and used are displayed accordingly.

ManageTeams

Your Selections  
 Batsmen (BAT) 4    Bowlers (BOW) 3    Allrounders (AR) 3    Wicket-keeper (WK) 1

Points Available 50    Points Used 950

☐ BAT   ☐ BOW   ☐ AR   ☒ WK

Dinesh Karthik

Team Name Internshala11

Virat Kohli  
 Dhawan  
 Rahane  
 Singh  
 Bhawar Kumar  
 Yadav  
 Kedar Jadhav  
 Hardik Pandya  
 M.S.Dhoni  
 Ravindra Jadeja  
 Jasprit Bumrah

You can't select more than one wicket-keeper.  
 OK

5 - Message if the game logic is not followed

ManageTeams

Your Selections  
 Batsmen (BAT) 4    Bowlers (BOW) 3    Allrounders (AR) 3    Wicket-keeper (WK) 1

Points Available 50

☐ BAT   ☐ BOW   ☐ AR   ☒ WK

Dinesh Karthik

Evaluate the Performance of your Fantasy Team

Select Team  
 Internshala11  
 Python11  
 JavaTeam  
 C++Team

Select Match  
 Match1  
 Match2  
 Match3  
 Match4  
 Match5  
 Match6

Calculate Score

6 - Pop-up on clicking Evaluate Score. You can select your team here and the match for which the players' performance is compared.

ManageTeams

Your Selections  
 Batsmen (BAT) 4    Bowlers (BOW) 3    Allrounders (AR) 3    Wicket-keeper (WK) 1

Points Available 50

☐ BAT   ☐ BOW   ☐ AR   ☒ WK

Dinesh Karthik

Evaluate the Performance of your Fantasy Team

Internshala11    Match3

Players

Players	Points
Virat Kohli	58
Shikhar Dhawan	76
Ajinkya Rahane	34
Yuvraj Singh	43
Bhuvneshwar Kumar	21
Umesh Yadav	87
Kedar Jadhav	43
Hardik Pandya	26
M.S.Dhoni	56
Ravindra Jadeja	12

Points 456

Calculate Score

7 - The final score for your fantasy team based on the match selected.

## Problem Statement

Create a Fantasy Cricket game in Python. The game should have all the features displayed in the mock-up screens in the scenario. To calculate the points for each player, you can use rules similar to the sample rules displayed below.

### Sample of Rules

#### Batting

- 1 point for 2 runs scored
- Additional 5 points for half century
- Additional 10 points for century
- 2 points for strike rate (runs/balls faced) of 80-100
- Additional 4 points for strike rate > 100
- 1 point for hitting a boundary (four) and 2 points for over boundary (six)

#### Bowling

- 10 points for each wicket
- Additional 5 points for three wickets per innings
- Additional 10 points for 5 wickets or more in innings
- 4 points for economy rate (runs given per over) between 3.5 and 4.5
- 7 points for economy rate between 2 and 3.5
- 10 points for economy rate less than 2

#### Fielding

- 10 points each for catch/stumping/run out

### Database Design

For the database, you are required to use three tables – match, stats and teams.

#### match

Player	Scored	Faced	Fours	Sixes	Bowled	Maide n	Given	Wkts	Catches	Stumpin g	RO*

\*Run Out

#### teams

name	players	value

## stats

player	matches	runs	100s	50s	value	ctg

Note: The teams table will be populated after score calculation. The data to enter in the remaining two tables is given below:

player	scored	faced	fours	sixes	bowled	maiden	given	wkts	catches	stumping	ro	value	matches	runs	100s	50s	ctg
Kohli	102	98	8	2	0	0	0	0	0	0	1	120	189	8257	28	43	BAT
Yuvraj	12	20	1	0	48	0	36	1	0	0	0	100	86	3589	10	21	BAT
Rahane	49	75	3	0	0	0	0	0	1	0	0	100	158	5435	11	31	BAT
Dhawan	32	35	4	0	0	0	0	0	0	0	0	85	25	565	2	1	AR
Dhoni	56	45	3	1	0	0	0	0	3	2	0	75	78	2573	3	19	BAT
Axar	8	4	2	0	48	2	35	1	0	0	0	100	67	208	0	0	BWL
Pandya	42	36	3	3	30	0	25	0	1	0	0	75	70	77	0	0	BWL
Jadeja	18	10	1	1	60	3	50	2	1	0	1	85	16	1	0	0	BWL
Kedar	65	60	7	0	24	0	24	0	0	0	0	90	111	675	0	1	BWL
Ashwin	23	42	3	0	60	2	45	6	0	0	0	100	136	1914	0	10	AR
Umesh	0	0	0	0	54	0	50	4	1	0	0	110	296	9496	10	64	WK
Bumrah	0	0	0	0	60	2	49	1	0	0	0	60	73	1365	0	8	WK
Bhuvaneshwar	15	12	2	0	60	1	46	2	0	0	0	75	17	289	0	2	AR
Rohit	46	65	5	1	0	0	0	0	1	0	0	85	304	8701	14	52	BAT
Kartick	29	42	3	0	0	0	0	0	2	0	1	75	11	111	0	0	AR

## Assignment Submission

Your submission should have fully functional code with the required modules, packages and database files. These should be submitted as an archive file. The key elements that should be present in your archive are:

- The main application code
- A Database of cricket players and their relevant stats
- The application .ui file

All the Best :)