

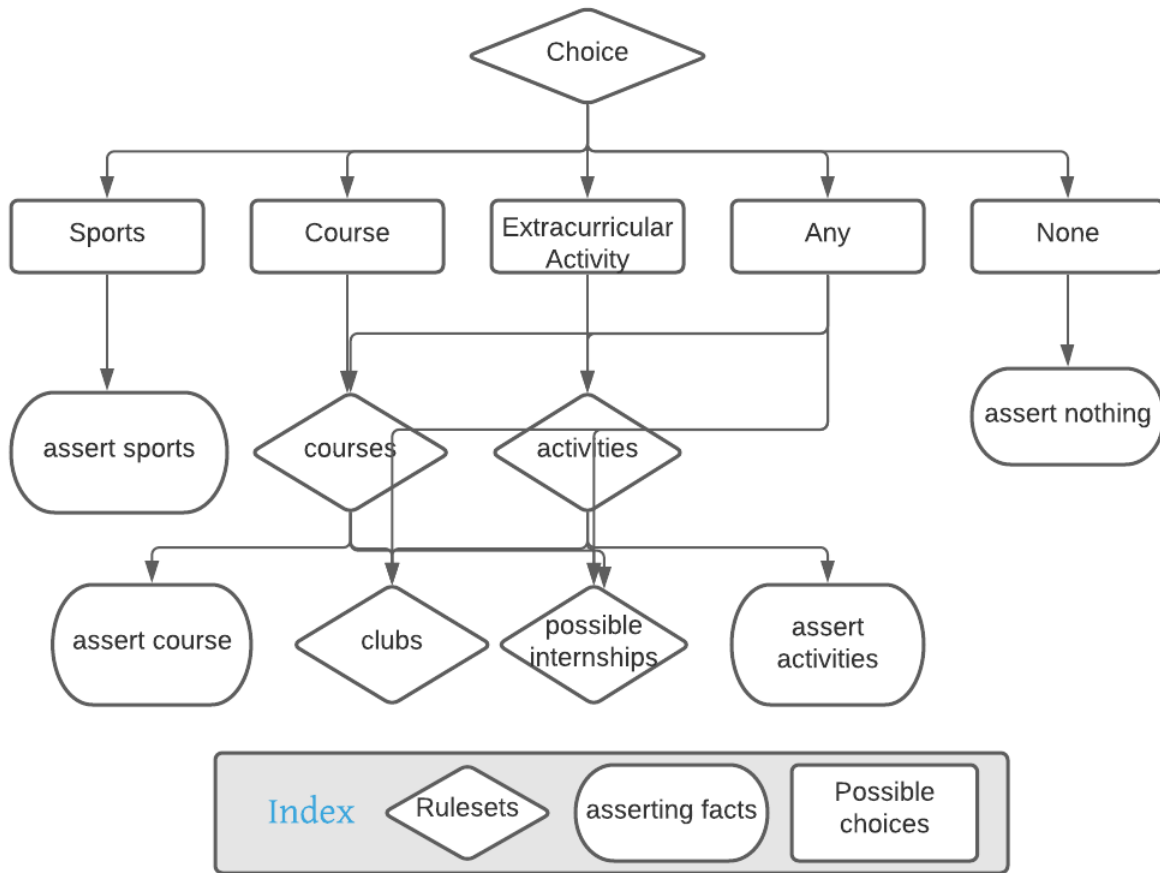
Assignment 3.

Suggestion System

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## Code Explanation

### Code Structure



It first asserts the interests and types from ruleset choices and then moves to the next ruleset as the type suggested.

The order of rulesets is shown above.

The code is commented on for easy understanding.

## Working and Assumptions

### 1. Input Required.

Type: course, extracurricular activity, any (both courses and activities) or none (neither of them)

Time: Planned duration of the activity, short (less than 1 month), intermediate (between 1 to 3 months), long (more than 3 months)

Availability: college (available inside college/ managed by the college) or any (can be available either outside college or within college)

(All courses are assumed to be present in college)

Interests: list of available interests is comedy, design, games, music, dance, performing, trivia, tourism, media, leadership, art, literature, machine\_learning, programming, operating\_systems, teaching, research, maths, fashion, philosophy, finance, or none.

Multiple interests can be chosen.

Mention the skill level for interest as 1 (beginner), 2 (intermediate), or 3 (expert).

End the input with "end".

### 2. Run the program by running

*py A3\_2019472.py*

### 3. Output

Suggested activities.

### 4. Ingenuity shown

- I have taken an array of interests which means that any number of interests can be chosen (they should not be repeated).
- The time duration of activity is also considered to give optimal results.
- The skill level of interests is considered so different skill levels get different outputs
- College clubs are also outputted, as they are an important part of extracurricular activities
- Possible internships are also considered to make the suggestions all rounded.
- The availability of courses and activities on campus is also taken
- The input is not hardcoded to make the UX better.

## Sample Outputs

Inputs are mentioned in the image.

### 1. Type: course

```
C:\Users\HP\Desktop\Manvi\Semesters\5_MonsoonSemester2021\Artificial Intelligence>py A3.py
Welcome to Course and Extracurricular Activity Suggestion System

Enter the type of activity: course, extracurricular activity, any (both), none (neither courses nor extracurricular activities):
course

Enter the duration for activity: short (< 1 month), intermediate (1 < month < 3), long (month > 3):
long

Enter the location for activity: college* (available in college/ maintained by college), any (college or outside):
any

Enter interests and level at the interests. Enter 'end' to stop input

Available options: comedy, design, games, music, dance, performing, trivia, tourism, media, leadership, art, literature, machine
s, teaching, research, maths, fashion, philosophy, finance
Enter interest: art
Enter level (1, 2, 3): 2

Enter interest: comedy
Enter level (1, 2, 3): 1

Enter interest: programming
Enter level (1, 2, 3): 3

Enter interest: end

Fact: Do internship Open Source
Fact: Do internship software developer
Fact: Choose course Competetive programming
Fact: Choose course App Development
```

## 2. Type: Extracurricular activities

```
C:\WINDOWS\system32\cmd.exe
C:\Users\HP\Desktop\Manvi\Semesters\5_MonsoonSemester2021\Artificial Intelligence>py A3.py
Welcome to Course and Extracurricular Activity Suggestion System

Enter the type of activity: course, extracurricular activity, any (both), none (neither courses nor extracurricular
extracurricular activity

Enter the duration for activity: short (< 1 month), intermediate (1 < month < 3), long (month > 3):
intermediate

Enter the location for activity: college* (available in college/ maintained by college), any (college or outside):
college

Enter interests and level at the interests. Enter 'end' to stop input

Available options: comedy, design, games, music, dance, performing, trivia, tourism, media, leadership, art, litera
s, teaching, research, maths, fashion, philosophy, finance
Enter interest: design
Enter level (1, 2, 3): 2

Enter interest: maths
Enter level (1, 2, 3): 1

Enter interest: performing
Enter level (1, 2, 3): 2

Enter interest: music
Enter level (1, 2, 3): 1

Enter interest: end

Suggestions:

Fact: Join club Machaan
Fact: Join club Muse
Fact: Choose activity Theatre
```

### 3. Type: any

```
C:\WINDOWS\system32\cmd.exe
long

Enter the location for activity: college* (available in college/ maintenance/ any)

Enter interests and level at the interests. Enter 'end' to stop input

Available options: comedy, design, games, music, dance, performing, trivia, sports, teaching, research, maths, fashion, philosophy, finance
Enter interest: maths
Enter level (1, 2, 3): 3

Enter interest: research
Enter level (1, 2, 3): 2

Enter interest: finance
Enter level (1, 2, 3): 1

Enter interest: programming
Enter level (1, 2, 3): 3

Enter interest: leadership
Enter level (1, 2, 3): 2

Enter interest: end

Suggestions:

end
Fact: Do internship Research internship
Fact: Join club Finnexia
Fact: Join club LeanIn
Fact: Join club Women In Tech
Fact: Join club Evariste
Fact: Do internship Open Source
Fact: Do internship software developer
Fact: Choose course Competetive programming
Fact: Choose course App Development
Fact: Join club Girl Up
Fact: Join club Enactus
Fact: Do internship Startup
Fact: Do internship Product management
Fact: Choose activity Community Project
Fact: Choose activity Student Council
```

#### 4. Type: none

```
Welcome to Course and Extracurricular Activity Suggestion System

Enter the type of activity: course, extracurricular activity, any (both), none (neither courses nor e
none

Enter the duration for activity: short (< 1 month), intermediate (1 < month < 3), long (month > 3):
short

Enter the location for activity: college* (available in college/ maintained by college), any (college
any

Enter interests and level at the interests. Enter 'end' to stop input

Available options: comedy, design, games, music, dance, performing, trivia, tourism, media, leadershi
s, teaching, research, maths, fashion, philosophy, finance
Enter interest: maths
Enter level (1, 2, 3): 2

Enter interest: art
Enter level (1, 2, 3): 1

Enter interest: end

Suggestions:

Fact: No suggested activities
```

#### 5. Type: Sports

```
C:\Users\HP\Desktop\Manvi\Semesters\5_MonsoonSemester2021\Artificial Intelligence>py A3.py
Welcome to Course and Extracurricular Activity Suggestion System

Enter the type of activity: course, extracurricular activity, any (both), none (neither cours
sports

Enter the duration for activity: short (< 1 month), intermediate (1 < month < 3), long (month
short

Enter the location for activity: college* (available in college/ maintained by college), any (
any

Enter interests and level at the interests. Enter 'end' to stop input

Available options: comedy, design, games, music, dance, performing, trivia, tourism, media, l
s, teaching, research, maths, fashion, philosophy, finance
Enter interest: art
Enter level (1, 2, 3): 2

Enter interest: dance
Enter level (1, 2, 3): 1

Enter interest: end

Suggestions:

Fact: Choose activity sports
```

Thank You.