Assignment 1

Submitted by, Swati Verma MT19073

This Career Advisory System is for B.Tech students having a degree in Computer Science and Engineering.

Here I am giving various career options like:

- Master in Science (MS).
- Masters in Technology (MTech).
- Masters in Business Administration (MBA).
- IT jobs like Software Developer, Data Analyst, and System Designer.
- Government jobs like working in the public sector or teaching jobs.
- A career in Defence.
- Traveling related options like Journalist, Event Planner, Tavel Advisor, Photographer, etc.
- Other career options like Graphic Designer, Interior Designer, Fashion Designer.

Different parameters considered are:

- Physical or Mental work.
- Aptitude marks.
- Fluency in English.
- Interested in research or practical implementation.
- Technical or non-technical person.
- Done coding or not.
- Different CGPAs for various career options.
- Exams given GRE, CAT, GATE, None.
- Cleared cutoff in various exams.
- Comfortable working at flexible working hours.
- Want to serve society.
- Business oriented.
- Like interacting with others.
- Management skills.
- Leadership skill.
- Risk taker.
- Creative and innovative.
- Traveller or non-traveller.
- Can adapt to different climatic conditions.
- Likes teaching or not.

Program Code:

```
%Program Starts from here
start :-
 ansi format([bold,fg(blue)], 'Career Advisory System. ~w', ["]),nl,
 ansi format([bold], 'Welcome!! We will try to advice best career option for you. ~w', ["]),nl,
 write('We will give you different options.'), nl,
 write('To answer the questions, enter the option followed by a "."'), nl,
 reset values,
 advice career(Option).
%Using cut here so that once a degree has been adviced then other degrees will not be explored
advice career(Option):-career(Option),!.
% Stores replies of a user temporarily
:- dynamic(result/2).
% Reset temporarily stored values whenever program starts
reset_values :-retract(result(_, _)),fail.
reset values.
% Career Options for CSE Student
career(ms):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech),
 research or practical(research), given exam(gre), cleared gre cutoff(yes),
cgpa more than 9(yes), english(yes),
 write('You seems to be interested in research.'),nl,
 write('You are good in english and your marks are also good.'),nl,
 write('So, you can go for higher studies'),nl,
 ansi format([bold,fg(green)], 'Suggestion: Masters in Science ~w', ["]).
career(ms):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech),
research or practical(research), given exam(gre), cleared gre cutoff(yes),
 cgpa more than 9(yes), write ('You seems to be interested in research.'), nl,
 write('Your marks are good but you need to work on your english.'),nl,
 write('Still, you can go for higher studies'),nl,
 ansi format([bold,fg(green)], 'Suggestion: Masters in Science ~w', ["]).
career(ms):-
 physical or mental(mental), aptitute(yes), tech_or_nontech(tech),
 research or practical(research), given exam(gre), cleared gre cutoff(yes),
 cgpa more than 9(no),
```

```
ansi format([bold,fg(green)], 'Sorry, you do not have enough CGPA to do MS. ~w', ["]),
 nl, write('You can still apply for some of the colleges for MS'),nl,
 write(' It would be better if you try finding other career options. ').
career(mtech):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech),
 research or practical(research), given exam(gate), cleared gate cutoff(yes),
 cgpa more than 7(yes), write('You seems to be interested in research.'),nl,
 write('You have cleared gate cutoff and you are interested in technology.'),nl,
 write('So, you can go for higher studies'),nl,
 ansi format([bold,fg(green)], 'Suggestion: Masters in Technology. ~w', ["]).
career(mtech):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech),
research or practical(research), given exam(gate), cleared gate cutoff(yes),
 cgpa more than 7(no), write('You seems to be interested in research.'),nl,
 write('You have cleared gate cutoff and but your CGPA is less than 7.'),nl,
 write('Still, you can go for higher studies'),nl,
 ansi format([bold,fg(green)], 'Suggestion: Masters in Technology. ~w', ["]).
career(mba):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(cat),
 cleared cat cutoff(yes), cgpa more than 9(yes), business oriented(yes),
 good in interacting(yes), management skills(yes),
 write('You seems to be interested in business.'),nl,
 write('You have cleared CAT cutoff and you have good management skills.'),nl,
 write('You can go for higher studies'),nl,
 ansi format([bold,fg(green)], 'Suggestion: Masters in Business Administration. ~w', ["]).
career(mba):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech),
 given exam(cat), cleared cat cutoff(yes), cgpa more than 9(yes),
 business oriented(yes), good in interacting(yes),
 management skills(no), write('You seems to be interested in business.'),nl,
 write('You have cleared CAT cutoff with good CGPA but you need to improve your
management skills.'),nl, write('Still, You can go for higher studies'),nl,
 ansi format([bold,fg(green)], 'Suggestion: Masters in Business Administration. ~w', ["]).
career(mba):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(cat),
 cleared cat cutoff(yes), cgpa more than 9(yes), business oriented(yes),
 good_in_interacting(no), write('You seems to be interested in business.'),nl,
 write('You have cleared CAT cutoff with good CGPA but you need to improve your
communication skills.'),nl, write('Still, You can go for higher studies'),nl,
 ansi format([bold,fg(green)], 'Suggestion: Masters in Business Administration. ~w', ["]).
```

```
career(mba):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(cat),
 business oriented(yes), cleared cat cutoff(yes), cgpa more than 9(no),
 write('You seems to be interested in business.'),nl,
 write('You have cleared CAT cutoff but you need to improve your cummunication skills as well
as CGPA.'),nl, write('Still, You can go for higher studies'),nl,
 ansi format([bold,fg(green)], 'Suggestion: Masters in Business Administration. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech_or_nontech(tech), given_exam(cat),
 cleared cat cutoff(yes), coding(yes), flexible working hour(yes), neophile(yes),
 write('You seems to be interested in coding and cleared CAT exam.'),nl,
 write('You have done tech projects and loves to learn new technology.'),nl,
 write('So, you can go for an IT Job'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Software developer. ~w', ["]),nl,
 ansi_format([bold,fg(green)], ' 2. Data Anayst. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Technical researcher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '4. System Designer. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(cat),
 cleared cat cutoff(yes), coding(yes), flexible working hour(yes), neophile(no),
 write('You seems to be interested in coding.'),nl,
 write('You have also cleared CAT exam.'),nl, write('So, you can go for an IT Job'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Software developer. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Data Anayst. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Technical researcher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '4. System Designer. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(cat),
 cleared cat cutoff(no), coding(yes), flexible working hour(yes),
 write('You seems to be interested in coding.'),nl,
 write('You have also given CAT exam.'),nl, write('So, you can go for an IT Job'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Software developer. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Data Anayst. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Technical researcher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '4. System Designer. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(cat),
```

```
cleared cat cutoff(yes), coding(yes), flexible working hour(yes),
 write('You seems to be interested in coding.'),nl,
 write('You have also given CAT exam.'),nl, write('So, you can go for an IT Job'),nl,
 write('We would suggest you following job options'),nl,
 ansi_format([bold,fg(green)], ' 1. Software developer. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Data Anayst. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Technical researcher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '4. System Designer. ~w', ["]).
career(job) :-
physical or mental(mental), aptitute(yes), tech or nontech(tech),
 research or practical(research), given exam(gate), cleared gate cutoff(no), coding(yes),
 flexible working hour(yes),
 write('You seems to be interested in coding as well as research.'),nl,
 write('You have also given GATE exam.'),nl,
 write('So, you can go for an IT Job'),nl,
 write('We would suggest you following job options'),nl,
 ansi_format([bold,fg(green)], '1. Software developer. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Data Anayst. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Technical researcher. ~w', ["]).
career(job):-
physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(gate),
 cleared gate cutoff(yes), coding(yes), flexible working hour(yes),
 write('You seems to be interested in coding.'),nl,
 write('You have also given GATE exam.'),nl,
 write('So, you can go for an IT Job'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Software developer. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Data Anayst. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Technical researcher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '4. System Designer. ~w', ["]).
career(job):-
physical or mental(mental), aptitute(yes), tech or nontech(tech),
 research or practical(research), given exam(gre), cleared gate cutoff(yes), coding(yes),
 flexible working hour(yes),
 write('You seems to be interested in coding.'),nl,
 write('You have also given GATE exam.'),nl,
 write('So, you can go for an IT Job'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Software developer. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Data Anayst. ~w', ["]),nl,
 ansi_format([bold,fg(green)], ' 3. Technical researcher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '4. System Designer. ~w', ["]).
```

```
career(job) :-
physical or mental(mental), aptitute(yes), tech or nontech(tech),
 research or practical(research), given exam(gre), cleared gre cutoff(no), coding(yes),
 flexible working hour(yes),
 write('You seems to be interested in coding.'),nl,
 write('You have also given GRE exam.'),nl,
 write('So, you can go for an IT Job'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Software developer. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Data Anayst. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Technical researcher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '4. System Designer. ~w', ["]).
career(job) :-
physical or mental(mental), aptitute(yes), tech or nontech(tech), given_exam(none),
 coding(yes), flexible working hour(yes),
 write('You seems to be interested in coding and technology.'),nl,
 write('So, you can go for an IT Job'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Software developer. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Data Anayst. ~w', ["]),nl,
 ansi format([bold,fg(green)], '4. System Designer. ~w', ["]).
career(job):-
physical or mental(mental), aptitute(no), tech or nontech(tech), coding(yes),
 flexible working hour(yes),
 write('You seems to be interested in coding.'),nl,
 write('You need to improve your aptitute though.'),nl,
 write('Still, you can go for an IT Job'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Software developer. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Data Anayst. ~w', ["]),nl,
 ansi_format([bold,fg(green)], ' 3. Technical researcher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '4. System Designer. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(no), tech or nontech(tech), coding(no),
 flexible working hour(yes),
 write('You seems not interested in coding.'),nl,
 write('You need to improve your aptitude also.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Public Sector. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Teaching profile. ~w', ["]),nl,
```

```
ansi format([bold,fg(green)], ' 3. Take one year gap and try to explore new hobbies and
interests. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech),
 flexible working hour(no), social service(yes), teaching(yes), given exam(none),
 write('You seems to be interested in teaching as well as you have technological knowledge.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Private tutor. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), coding(yes),
 flexible working hour(no), social service(yes), teaching(yes), given exam(none),
 write('You seems to be interested in teaching as well as you have technological knowledge.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Private tutor. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), coding(yes),
 flexible working hour(no), social service(yes), teaching(no), given exam(none),
 write('You like serving the society as well as you have coding knowledge.'),nl,
 write('But you do not like teaching.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Public Sector Job. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), coding(no),
 flexible working hour(no), social service(yes), teaching(no), given exam(none),
 write('You like serving the society as well as you have technological knowledge.'),nl,
 write('But you do not like teaching or coding .'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Public Sector Job. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), coding(yes),
 flexible working hour(no), social service(yes), teaching(yes),
 write('You seems to be interested in teaching as well as you have technological knowledge.'),nl,
 write('We are also good at coding.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Private tutor. ~w', ["]).
```

```
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), coding(no),
 flexible working hour(no), social service(yes), teaching(yes),
 write('You seems to be interested in teaching as well as you have technological knowledge.'),nl,
 write('We are also good at coding.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Private tutor. ~w', ["]).
career(job) :-
 physical or mental(mental), aptitute(yes), tech or_nontech(tech), coding(yes),
 flexible working hour(no), social service(yes), teaching(no),
 write('You like serving the society as well as you have technological knowledge.'),nl,
 write('We would suggest you following job options'),nl,
 write('But you do not like teaching.'),nl,
 ansi format([bold,fg(green)], '1. Public Sector Job. ~w', ["]).
career(job) :-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), coding(no),
 flexible working hour(no), social service(yes), teaching(no),
 write('You like serving the society as well as you have technological knowledge.'),nl,
 write('But you do not like teaching.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Public Sector Job. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(no), tech or nontech(tech),
 flexible working hour(no), social service(yes),
 write('You like serving the society as well as you have technological knowledge.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Private tutor. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Public Sector Job. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(cat),
 cleared cat cutoff(no), flexible working hour(no), social service(yes),
 write('You like serving the society as well as you have technological knowledge.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Private tutor. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Public Sector Job. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(gate),
```

```
cleared cat cutoff(no), flexible working hour(no), social service(yes),
 write('You like serving the society as well as you have technological knowledge.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi_format([bold,fg(green)], ' 2. Private tutor. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Public Sector Job. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(gre),
 cleared cat cutoff(no), flexible working hour(no), social service(yes),
 write('You like serving the society as well as you have technological knowledge.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Private tutor. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Public Sector Job. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(gre),
 cleared cat cutoff(yes), flexible working hour(no), social service(yes),
 write('You like serving the society as well as you have technological knowledge.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Private tutor. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Public Sector Job. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(gate),
 cleared cat cutoff(yes), flexible working hour(no), social service(yes),
 write('You like serving the society as well as you have technological knowledge.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Private tutor. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Public Sector Job. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(cat),
 cleared cat cutoff(yes), flexible working hour(no), social service(yes),
 write('You like serving the society as well as you have technological knowledge.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Private tutor. ~w', ["]),nl,
 ansi format([bold,fg(green)], ' 3. Public Sector Job. ~w', ["]).
career(job):-
 physical or mental(mental), aptitute(yes), tech or nontech(tech), given exam(cat),
```

```
cleared cat cutoff(no), flexible working hour(yes), coding(yes), social service(yes),
 write('You like serving the society as well as you have technological knowledge.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Teacher. ~w', ["]),nl,
 ansi_format([bold,fg(green)], ' 2. Private tutor. ~w', ["]),nl,
 ansi format([bold,fg(green)], ' 3. Public Sector Job. ~w', ["]).
career(business):-
 physical or mental(mental), aptitute(no), tech or nontech(nontech),
 business oriented(yes), good in interacting(yes), management skills(yes),
 leadership(yes), creative and innovative(yes), risk taker(yes),
 write('You are a non-technological person but you are a risk taker.'),nl,
 write('You are interested in business and you have good management skills and well as you are
a good leadership.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. You can start your own business. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Be an entrepreneaur. ~w', ["]),nl,
 ansi format([bold,fg(green)], ' 3. Join any business related company. ~w', ["]).
career(business):-
 physical or mental(mental), aptitute(yes), tech or nontech(nontech),
 business oriented(yes), good in interacting(yes), management skills(yes), leadership(yes),
 creative and innovative(yes), risk taker(yes),
  write('You are a non-technological person but you are good in aptitute and you are a risk
taker.'),nl,
 write('You are interested in business and you have good management skills and well as you are
a good leadership.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. You can start your own business. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Be an entrepreneaur. ~w', ["]),nl,
 ansi format([bold,fg(green)], ' 3. Join any business related company. ~w', ["]).
career(army):-
 physical or mental(physical), leadership(yes), risk taker(yes),
 adapt to critical condition(yes), write('You seems to be physically fit.'),nl,
 write('You are a risk taker and can adapt to any situation.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], ' 1. Join India Army Force. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Join India Air Force. ~w', ["]),nl,
 ansi format([bold,fg(green)], ' 3. Join India Navy Force. ~w', ["]).
career(army):-
 physical or mental(physical), leadership(no), risk taker(ves),
 adapt to critical condition(yes),
 write('You seems to be physically fit.'),nl,
```

```
write('You are a risk taker and can adapt to any situation.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(green)], '1. Join India Army Force. ~w', ["]),nl,
 ansi format([bold,fg(green)], '2. Join India Air Force. ~w', ["]),nl,
 ansi format([bold,fg(green)], '3. Join India Navy Force. ~w', ["]).
career(others):-
 aptitute(yes), tech or nontech(tech), social service(no), traveller nontraveller(nontraveller),
 creative and innovative(yes),
 write('You seems like a creative and innovative person with technical knowledge.'),nl,
 write ('But you do not like travelling and wants to do something by staying at a place only'), nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(magenta)], '1. Graphic Designer. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '2. Interior Designer. ~w', ["]),nl,
 ansi_format([bold,fg(magenta)], '2. Artist. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '3. Fashion Designer.. ~w', ["]).
career(others):-
 aptitute(yes), tech or nontech(nontech), traveller nontraveller(nontraveller),
 creative and innovative(yes), write('You seems like a creative and innovative person.'),nl,
 write ('But you do not like travelling and wants to do something by staying at a place only'), nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(magenta)], '2. Interior Designer. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '2. Artist. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '3. Fashion Designer.. ~w', ["]).
career(others):-
 aptitute(yes), traveller nontraveller(nontraveller), creative and innovative(no),
 write('You do not like travelling and wants to do something by staying at a place only'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(magenta)], '2. Interior Designer. ~w', ["]),nl,
 ansi_format([bold,fg(magenta)], '2. Artist. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '3. Fashion Designer.. ~w', ["]).
career(others):-
 aptitute(no), tech or nontech(nontech),
 business oriented(no), traveller nontraveller(nontraveller), creative and innovative(yes),
 write('You seems like a creative and innovative person.'),nl,
 write('But you do not like travelling and wants to do something by staying at a place only'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(magenta)], '1. Graphic Designer. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '2. Interior Designer. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '2. Artist. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '3. Fashion Designer.. ~w', ["]).
```

```
career(others):-
 aptitute(yes), tech or nontech(tech),
 social service(no), traveller nontraveller(traveller), creative and innovative(yes),
 write('You seems like a creative and innovative person with technical knowledge.'),nl,
 write('You like travelling a lot.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(magenta)], '1. Event Planner. ~w', ["]),nl,
 ansi_format([bold,fg(magenta)], ' 2. Journalism. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], ' 2. Photographer if you are interested in photography.. ~w',
 ansi format([bold,fg(magenta)], '3. International Aid Woker.. ~w', ["]).
career(others):-
 aptitute(yes), tech or nontech(tech),
 social service(no), traveller nontraveller(traveller), creative and innovative(no),
 write('You seems like a creative and innovative person with technical knowledge.'),nl,
 write('You like travelling a lot.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(magenta)], '1. Event Planner. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '2. Journalism. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], ' 2. Photographer if you are interested in photography.. ~w',
["]),nl,
 ansi format([bold,fg(magenta)], '3. International Aid Woker.. ~w', ["]).
career(others):-
 physical or mental(physical), traveller nontraveller(traveller),
 creative and innovative(yes), write('You seems like a creative and innovative person.'),nl,
 write('You like travelling a lot.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(magenta)], '1. Event Planner. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '2. Journalism. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], ' 2. Photographer if you are interested in photography.. ~w',
["]),nl,
 ansi format([bold,fg(magenta)], '3. International Aid Woker.. ~w', ["]).
career(others):-
 aptitute(yes), tech or nontech(tech),
 social service(no), traveller nontraveller(traveller),
 creative and innovative(yes),
 write('You seems like a creative and innovative person with technical knowledge.'),nl,
 write('You like travelling a lot.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(magenta)], '1. Event Planner. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '2. Journalism. ~w', ["]),nl,
```

```
ansi format([bold,fg(magenta)], ' 2. Photographer if you are interested in photography.. ~w',
["]),nl,
 ansi format([bold,fg(magenta)], '3. International Aid Woker.. ~w', ["]).
career(others):-
 aptitute(yes), tech or nontech(nontech),
 traveller nontraveller(traveller), creative and innovative(yes),
 write('You seems like a creative and innovative person.'),nl,
 write('You like travelling a lot.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(magenta)], '1. Event Planner. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '2. Journalism. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], ' 2. Photographer if you are interested in photography.. ~w',
["]),nl,
 ansi format([bold,fg(magenta)], '3. International Aid Woker.. ~w', ["]).
career(others):-
 aptitute(yes), tech or nontech(nontech),
 traveller nontraveller(traveller), creative and innovative(no),
 write('You seems like a creative and innovative person.'),nl,
 write('You like travelling a lot.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(magenta)], '1. Event Planner. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '2. Journalism. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], ' 2. Photographer if you are interested in photography.. ~w',
["]),nl,
 ansi format([bold,fg(magenta)], '3. International Aid Woker.. ~w', ["]).
career(others):-
 aptitute(no), tech or nontech(nontech),
 business oriented(no), traveller nontraveller(traveller),
 creative and innovative(yes),
 write('You seems like a creative and innovative person.'),nl,
 write('You like travelling a lot.'),nl,
 write('We would suggest you following job options'),nl,
 ansi format([bold,fg(magenta)], '1. Event Planner. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], '2. Journalism. ~w', ["]),nl,
 ansi format([bold,fg(magenta)], ' 2. Photographer if you are interested in photography.. ~w',
["]),nl,
 ansi format([bold,fg(magenta)], '3. International Aid Woker.. ~w', ["]).
career(others):-
ansi format([bold,fg(red)], 'Sorry, we are unable to help you. ~w', ["]),nl,
 write('You can take a break for this year or try to explore your new interestes.').
```

```
query(physical or mental):-
 write('Do you like physical work or work which includes thinking and problem solving?'), nl.
query(teaching):-
 write('Are you interested in teaching?'), nl.
query(aptitute):-
 write('Are you good in aptitude? '), nl.
query(english):-
 write('Can you speak English fluently?'), nl.
query(research or practical):-
 write('Are you interested in doing research or interested in practical implementation?'), nl.
query(tech or nontech):-
 write('Are you a tech or non tech person?'), nl.
query(cgpa more than 9):-
 write('Is your B.tech CGPA more than 9?'), nl.
query(given exam):-
 write('Which exam you cleared GRE/GATE/CAT/None?'), nl.
query(cleared gre cutoff):-
 write('Have you cleared cutoff marks for gre?'), nl.
query(cleared gate cutoff):-
 write('Have you cleared cutoff marks for gate?'), nl.
query(cleared cat cutoff):-
 write('Have you cleared cutoff marks for cat?'), nl.
query(cgpa more than 7):-
 write('Is your CGPA more than 7?'), nl.
query(coding):- write('Are you interested in coding?'), nl.
query(neophile):-
 write('Are you interested in learning new technologies?'), nl.
query(flexible working hour):-
 write('Are you comfortable in flexible working hour?'), nl.
query(social service):-
 write('Do you like serving our society?'), nl.
query(business oriented):-
 write('Are you interested in business?'), nl.
query(good in interacting):-
 write('Do you like interacting with people?'), nl.
query(management skills):-
 write('Do you have good management skill? '), nl.
query(leadership):-
 write('Are you a good leader?'), nl.
query(creative and innovative):-
 write('Are you a person of creative and innovative ideas?'), nl.
query(risk taker):-
 write('Are you willing to take risks?'), nl.
query(adapt to critical condition):-
 write('Are you comfortable in living in critical weather conditions?'), nl.
```

```
query(traveller nontraveller):- write('Do you like travelling?'), nl.
reply(mental):- write('Mental Work.').
reply(physical):- write('Physical work.').
reply(research):- write('Interested in research.').
reply(practical): - write('Interested in practical implementation.').
reply(tech) :- write('Love new technologies.').
reply(nontech) :- write('Not a technical person.').
reply(gre):- write('Given GRE.').
reply(gate) :- write('Given GATE.').
reply(cat):- write('Given CAT.').
reply(none):- write('None').
reply(computer): write('Comfortable in working on a computer.').
reply(hands):- write('Do not like working on a computer.').
reply(yes):- write('Yes.').
reply(no):- write('No.').
reply(nontraveller):- write('Do not like travelling.').
reply(traveller) :- write('Like travelling.').
%Assigning answers cooresponding to each question
physical or mental(Ans):- result(physical or mental, Ans).
physical or mental(Ans):- \+ result(physical or mental, ),
 ques ans choice(physical or mental, Ans, [physical, mental]).
aptitute(Ans):- result(aptitute, Ans).
aptitute(Ans) :- \+ result(aptitute, ),
 ques ans choice(aptitute, Ans, [yes, no]).
teaching(Ans):- result(teaching, Ans).
teaching(Ans) :- \+ result(teaching, ),
 ques ans choice(teaching, Ans, [yes, no]).
english(Ans):- result(english, Ans).
english(Ans) :- \+ result(english, ),
 ques ans choice(english, Ans, [yes, no]).
cgpa more than 9(Ans):- result(cgpa more than 9, Ans).
cgpa more than 9(Ans) := + result(cgpa more than 9, ),
 ques ans choice(cgpa more than 9, Ans, [yes, no]).
cgpa more than 7(Ans):- result(cgpa more than 7, Ans).
cgpa more than 7(Ans) := + result(cgpa more than 7, ),
 ques ans choice(cgpa more than 7, Ans, [yes, no]).
research or practical(Ans):- result(research or practical, Ans).
```

```
research or practical(Ans):- \+ result(research or practical, ),
 ques ans choice(research or practical, Ans, [research, practical]).
tech or nontech(Ans):- result(tech or nontech, Ans).
tech or nontech(Ans):- \+ result(tech or nontech, ),
 ques ans choice(tech or nontech, Ans, [tech, nontech]).
given exam(Ans):- result(given exam, Ans).
given exam(Ans):- \+ result(given exam, ),
 ques ans choice(given exam, Ans, [gre, gate,cat,none]).
cleared gre cutoff(Ans):- result(cleared gre cutoff, Ans).
cleared gre cutoff(Ans):- \+ result(cleared gre cutoff, ),
 ques ans choice(cleared gre cutoff, Ans, [yes, no]).
cleared gate cutoff(Ans):- result(cleared gate cutoff, Ans).
cleared gate cutoff(Ans):- \+ result(cleared gate cutoff, ),
 ques ans choice(cleared gate cutoff, Ans, [yes, no]).
cleared cat cutoff(Ans):-
 result(cleared cat cutoff, Ans).
cleared cat cutoff(Ans):-
\+ result(cleared cat cutoff, ),
 ques ans choice(cleared cat cutoff, Ans, [yes, no]).
coding(Ans):- result(coding, Ans).
coding(Ans) :- \+ result(coding, ),
 ques ans choice(coding, Ans, [yes, no]).
business oriented(Ans):- result(business oriented, Ans).
business oriented(Ans):- \+ result(business oriented, ),
 ques ans choice(business oriented, Ans, [yes, no]).
good in interacting(Ans):- result(good in interacting, Ans).
good_in_interacting(Ans) :- \+ result(good in interacting, ),
 ques ans choice(good in interacting, Ans, [yes, no]).
management skills(Ans):- result(management skills, Ans).
management skills(Ans):- \+ result(management skills, ),
 ques ans choice(management skills, Ans, [yes, no]).
neophile(Ans) :- result(neophile, Ans).
neophile(Ans) :- \+ result(neophile, ),
 ques ans choice(neophile, Ans, [yes, no]).
```

```
flexible working hour(Ans):- result(flexible working hour, Ans).
flexible working hour(Ans):- \+ result(flexible working hour, ),
 ques ans choice(flexible working hour, Ans, [yes, no]).
social service(Ans):- result(social service, Ans).
social service(Ans):- \+ result(social service, ),
 ques ans choice(social service, Ans, [yes, no]).
leadership(Ans):- result(leadership, Ans).
leadership(Ans) :- \+ result(leadership, ),
 ques ans choice(leadership, Ans, [yes, no]).
creative and innovative(Ans):- result(creative and innovative, Ans).
creative and innovative(Ans):- \+ result(creative and innovative, ),
 ques ans choice(creative and innovative, Ans, [yes, no]).
risk taker(Ans):- result(risk taker, Ans).
risk taker(Ans):- \+ result(risk taker, ), ques ans choice(risk_taker, Ans, [yes, no]).
adapt to critical condition(Ans):- result(adapt to critical condition, Ans).
adapt to critical condition(Ans):- \+ result(adapt to critical condition, ),
 ques ans choice(adapt to critical condition, Ans, [yes, no]).
traveller nontraveller(Ans):- result(traveller nontraveller, Ans).
traveller nontraveller(Ans):- \+ result(traveller nontraveller, ),
 ques ans choice(traveller nontraveller, Ans, [traveller, nontraveller]).
%Implemented backtracking and lists
% Takes list of choices and present it to the users in proper format
replies([], ).
replies([Head|Tail], Val):-
 write(Val), write(''), reply(Head), nl,
 NextVal is Val + 1,replies(Tail, NextVal).
% from given set of choice list, whatever user chooses is explored by explore rule
explore(1, [Head]], Head).
explore(Val, [Head|Tail], FinalReply) :- Val > 1, NextVal is Val - 1,explore(NextVal, Tail,
FinalReply).
% Main function to ask questions and get a reply from user and assert the result
ques ans choice(Quiz, Ans, Options):-
 query(Quiz), replies(Options, 1),
 read(Val), explore(Val, Options, FinalReply),
 asserta(result(Quiz, FinalReply)),
 FinalReply = Ans.
```

Screenshots of the output:

1. Masters in Science

```
?- start.
Career Advisory System.
Welcome !! We will try to advice best career option for you.
We will give you different options.
To answer the questions, enter the option followed by a "."
Do you like physical work or work which includes thinking and problem solving?
1 Physical work.
2 Mental Work.
Are you good in aptitude?
1 Yes.
2 No.
Are you a tech or non tech person?
1 Love new technologies.
2 Not a technical person.
Are you interested in doing research or interseted in practical implementation?
1 Interested in research.
2 Interested in practical implementation.
Which exam you cleared GRE/GATE/CAT/None ?
1 Given GRE.
2 Given GATE.
3 Given CAT.
4 None
Have you cleared cutoff marks for gre?
1 Yes.
2 No.
Is your B.tech CGPA more than 9 ?
1 Yes.
2 No.
Can you speak English fluently?
1 Yes.
2 No.
You seems to be interested in research.
You are good in english and your marks are also good.
So, you can go for higher studies
Suggestion: Masters in Science
true.
```

7-

2. Masters in Technology

```
?- start.
Career Advisory System.
Welcome !! We will try to advice best career option for you.
We will give you different options.
To answer the questions, enter the option followed by a "."
Do you like physical work or work which includes thinking and problem solving?
1 Physical work.
2 Mental Work.
     2.
Are you good in aptitude?
1 Yes.
2 No.
Are you a tech or non tech person?
1 Love new technologies.
2 Not a technical person.
    1.
Are you interested in doing research or interseted in practical implementation?
1 Interested in research.
2 Interested in practical implementation.
Which exam you cleared GRE/GATE/CAT/None ?
1 Given GRE.
2 Given GATE.
3 Given CAT.
4 None
Have you cleared cutoff marks for gate?
1 Yes.
2 No.
Is your CGPA more than 7 ?
1 Yes.
2 No.
You seems to be interested in research.
You have cleared gate cutoff and you are interested in technology.
So, you can go for higher studies
Suggestion: Masters in Technology.
true.
```

3. Masters in Business Administration

Suggestion: Masters in Business Administration.

true.

?- start Career Advisory System. Welcome !! We will try to advice best career option for you. We will give you different options. To answer the questions, enter the option followed by a "." Do you like physical work or work which includes thinking and problem solving? 1 Physical work. 2 Mental Work. 2. Are you good in aptitude? 1 Yes. 2 No. Are you a tech or non tech person? 1 Love new technologies. 2 Not a technical person. 1. Are you interested in doing research or interseted in practical implementation? 1 Interested in research. 2 Interested in practical implementation. Which exam you cleared GRE/GATE/CAT/None ? 1 Given GRE. 2 Given GATE. 3 Given CAT. 4 None Have you cleared cutoff marks for cat? 1 Yes. 2 No. Is your B.tech CGPA more than 9 ? 1 Yes. 2 No. Are you interested in business? 1 Yes. 2 No. Do you like interacting with people? 1 Yes. 2 No. Do you have good management skill? 1 Yes. 2 No. You seems to be interested in business. You have cleared CAT cutoff and you have good management skills. You can go for higher studies

4. Business

```
?- start.
Career Advisory System.
Welcome !! We will try to advice best career option for you.

Welcome !! We will try to advice best career option for you.

To answer the questions. enter the option followed by a "."
Do you like physical work or work which includes thinking and problem solving?

1 Physical work.
2 Mental Work.
2 Mental Work.
2 Mental Work.
3 Mental Work.
4 Mental Work.
4 Mental Work.
5 Mental Work.
6 Mental Work.
7 Mental Work.
8 Mental Work.
9 Ment
```

5. IT Jobs

6. Public Sector

?- start.

```
Career Advisory System.
Welcome !! We will try to advice best career option for you.
We will give you different options.
To answer the questions, enter the option followed by a "."
Do you like physical work or work which includes thinking and problem solving?
1 Physical work.
2 Mental Work.
Are you good in aptitude?
1 Yes.
2 No.
Are you a tech or non tech person?
1 Love new technologies.
2 Not a technical person.
     1.
Are you interested in doing research or interseted in practical implementation?
1 Interested in research.
2 Interested in practical implementation.
Which exam you cleared GRE/GATE/CAT/None ?
1 Given GRE.
2 Given GATE.
3 Given CAT.
4 None
Have you cleared cutoff marks for cat?
1 Yes.
2 No.
Are you interested in business?
1 Yes.
2 No.
Are you interested in coding?
1 Yes.
Are you comfortable in flexible working hour?
1 Yes.
2 No.
Do you like serving our society ?
1 Yes.
2 No.
Are you interested in teaching?
1 Yes.
2 No.
You like serving the society as well as you have technological knowledge.
We would suggest you following job options
But you do not like teaching.
1. Public Sector Job.
true.
```

7. Teaching

```
Career Advisory System.
Welcome!! We will try to advice best career option for you.
We will give you different options.
To answer the questions, enter the option followed by a "."

Do you like physical work or work which includes thinking and problem solving?
1 Physical work.
2 Mental Work.
       2.
Are you good in aptitude?
1 Yes.
2 No.
Are you a tech or non tech person?

1 Love new technologies.

2 Not a technical person.
       1.
Are you interested in doing research or interseted in practical implementation?
1 Interested in research.
2 Interested in practical implementation.
Which exam you cleared GRE/GATE/CAT/None ?
1 Given GRE.
2 Given GATE.
3 Given CAT.
4 None
Have you cleared cutoff marks for gate?
1 Yes.
2 No.
Are you comfortable in flexible working hour?
1 Yes.
2 No.
Do you like serving our society ?
1 Yes.
2 No.
| 1.
Are you interested in teaching?
1 Yes.
2 No.
1 1.
Are you interested in coding?
1 Yes.
2 No.
You seems to be interested in teaching as well as you have technological knowledge.
We are also good at coding.
We would suggest you following job options
 1. Teacher.
2. Private tutor.
true.
```

8. Defence Job

```
Career Advisory System.

Welcome !! We will try to advice best career option for you.

We will give you different options.
To answer the questions, enter the option followed by a "."
Do you like physical work or work which includes thinking and problem solving?

1 Physical work.
2 Mental Work.
1 1.

Are you a good leader?
1 Yes.
2 No.
1 2.
Are you willing to take risks?
1 Yes.
2 No.
1 1.
Are you comfortable in living in critical weather conditions?
1 Yes.
2 No.
1 1.
Are you seems to be physically fit.
You seems to be physically fit.
You are a risk taker and can adapt to any situation.
We would suggest you following job options
1. Join India Arry Force.
2. Join India Air Force.
3. Join India Navy Force.

true.
```

9. Travelling Related Options

```
?- start
Career Advisory System.

Welcome !! We will try to advice best career option for you.

We will give you different options.

To answer the questions, enter the option followed by a "."
Do you like physical work or work which includes thinking and problem solving?
1 Physical work.
2 Mental Work.
        2
Are you good in aptitude?
1 Yes.
2 No.
Are you a tech or non tech person?
1 Love new technologies.
2 Not a technical person.
Are you interested in business?
1 Yes.
2 No.
2 Po you like travelling?
1 Likes travelling.
2 Do not like travelling.
Are you a person of creative and innovative ideas?
1 Yes.
2 No.
You seems like a creative and innovative person.
You like travelling a lot.
We would suggest you following job options
 1. Event Planner.
2. Journalism.
2. Photographer if you are interested in photography...
3. International Aid Woker..
    10. Non- travelling Related Options
Career Advisory System.

Welcome !! We will try to advice best career option for you.

We will give you different options.

To answer the questions, enter the option followed by a "."

Do you like physical work or work which includes thinking and problem solving?
 1 Physical work.
2 Mental Work.
```

```
Are you good in aptitude?
1 Yes.
2 No.
Are you a tech or non tech person?

1 Love new technologies.

2 Not a technical person.
Are you interested in business?
1 Yes.
2 No.
| 2.
Do you like travelling ?
1 Likes travelling.
2 Do not like travelling.
        2.
Are you a person of creative and innovative ideas?
1 Yes.
2 No.
You seems like a creative and innovative person.
But you do not like travelling and wants to do something by staying at a place only
We would suggest you following job options

1. Graphic Designer.
2. Interior Designer.
2. Artist.
3. Fashion Designer..
true.
```

11. Others- When non of the options are available, then System will ask to explore new interests

```
?- start
Career Advisory System.
Welcome !! We will try to advice best career option for you.
We will give you different options.
To answer the questions, enter the option followed by a "."
Do you like physical work or work which includes thinking and problem solving?
1 Physical work.
2 Mental Work.
     2.
Are you good in aptitude?
1 Yes.
1 No.
2 No.
Are you a tech or non tech person?
1 Love new technologies.
2 Not a technical person.
     2.
Are you interested in business?
1 Yes.
2 No.
Do you like travelling ?
1 Likes travelling.
2 Do not like travelling.
Are you a person of creative and innovative ideas?
1 Yes.
2 No.
Sorry, we are unable to help you.
You can take a break for this year or try to explore your new interestes.
```

References:

- 1. https://github.com/calmesam01/Career-Counseling-System/blob/master/main.pl
- 2. https://github.com/shivamgupta1/Career-Counsellor-expert-system/blob/master/careerguide.pl
- 3. https://www.swi-prolog.org/pldoc/man?predicate=dynamic/1
- 4. https://onlinelibrary.wiley.com/doi/abs/10.1002/spe.4380180303#:~:text=Assert%20is%20a%20meta%2Dpredicate,a%20clause%20from%20the%20program.
- 5. https://www.doc.gold.ac.uk/~mas02gw/prolog_tutorial/prologpages/recursion.html