

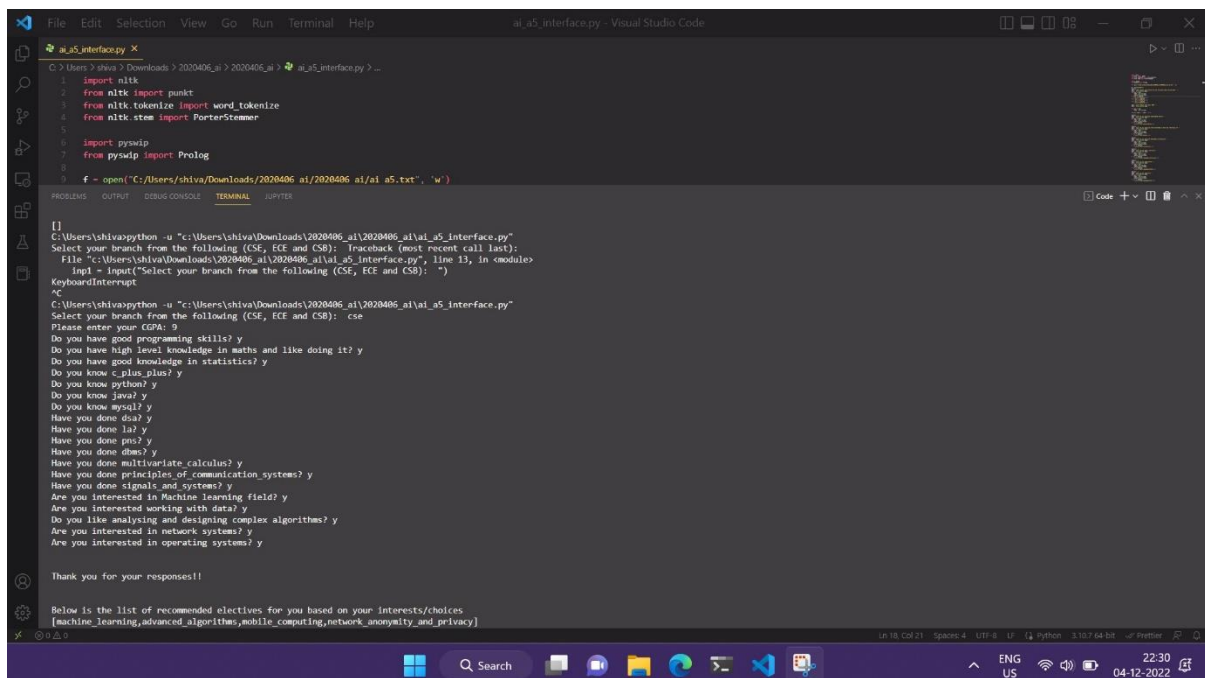
ARTIFICIAL INTELLIGENCE – ASSIGNMENT 5

Shivam Gupta, 2020406

Task:

We built a NL interface in python for the electives advisory system that we developed in prolog for assignment 1.

Screenshots of the working program:



```
File Edit Selection View Go Run Terminal Help
ai_a5_interface.py - Visual Studio Code

C:\Users\shiva> python 2020406_ai\2020406_ai\ai_a5_interface.py
1 import nltk
2 from nltk import punkt
3 from nltk.tokenize import word_tokenize
4 from nltk.stem import PorterStemmer
5
6 import pyswip
7 from pyswip import Prolog
8
9 f = open("C:/Users/shiva/Downloads/2020406_ai/ai_a5.txt", "w")

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
C:\Users\shiva> python -u "C:/Users/shiva/Downloads/2020406_ai/ai_a5_interface.py"
Select your branch from the following (CSE, ECE and CSE): Traceback (most recent call last):
File "C:/Users/shiva/Downloads/2020406_ai/ai_a5_interface.py", line 13, in <module>
    input = input("Select your branch from the following (CSE, ECE and CSE): ")
KeyboardInterrupt
^C
C:\Users\shiva> python -u "C:/Users/shiva/Downloads/2020406_ai/ai_a5_interface.py"
Select your branch from the following (CSE, ECE and CSE): cse
Please enter your GPA: 9
Do you have good programming skills? y
Do you have high level knowledge in maths and like doing it? y
Do you have good knowledge in statistics? y
Do you know c_plus_plus? y
Do you know python? y
Do you know java? y
Do you know mysql? y
Have you done dsa? y
Have you done la? y
Have you done pns? y
Have you done dms? y
Have you done multivariate calculus? y
Have you done principles of communication systems? y
Have you done signals and systems? y
Are you interested in Machine Learning field? y
Are you interested working with data? y
Do you like analysing and designing complex algorithms? y
Are you interested in network systems? y
Are you interested in operating systems? y

Thank you for your responses!!

Below is the list of recommended electives for you based on your interests/choices
[machine_learning,advanced_algorithms,mobile_computing,network_anonymity_and_privacy]
```

```
File Edit Selection View Go Run Terminal Help
ai_a5_interface.py - Visual Studio Code

ai_a5_interface.py X
C:\Users\shiva> Downloads\2020406_ai> 2020406_ai> ai_a5_interface.py ...
1 import nltk
2 from nltk import punkt
3 from nltk.tokenize import word_tokenize
4 from nltk.stem import PorterStemmer
5
6 import pysnlp
7 from pysnlp import Prolog
8
9 f = open("C:/Users/shiva/Downloads/2020406_ai/ai_a5.txt", "w")

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

Microsoft Windows [Version 10.0.22623.1020]
(c) Microsoft Corporation. All rights reserved.

C:\Users\shiva> python -u "C:/Users/shiva/Downloads/2020406_ai/ai_a5_interface.py"
Select your branch from the following (CSE, ECE and CSE): cse
Please enter your GPA: 9
Do you have good programming skills? y
Do you have high level knowledge in maths and like doing it? y
Do you have good knowledge in statistics? y
Do you know c plus plus? n
Do you know python? y
Do you know java? n
Do you know matlab? y
Have you done dsa? y
Have you done ia? y
Have you done pna? n
Have you done dms? n
Have you done multivariate calculus? y
Have you done principles of communication systems? n
Have you done signals and systems? n
Are you interested in Machine learning field? y
Are you interested working with data? y
Do you like analysing and designing complex algorithms? y
Are you interested in network systems? n
Are you interested in operating systems? n

Thank you for your responses!!

Below is the list of recommended electives for you based on your interests/choices
[]
C:\Users\shiva>
```

```
File Edit Selection View Go Run Terminal Help
ai_a5_interface.py - Visual Studio Code

ai_a5_interface.py X
C:\Users\shiva> Downloads\2020406_ai> 2020406_ai> ai_a5_interface.py ...
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8
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PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

[advanced algorithms]
Below is the list of recommended electives for you based on your interests/choices
[mobile computing]
Below is the list of recommended electives for you based on your interests/choices
[network anonymity and privacy]
Below is the list of recommended electives for you based on your interests/choices
[]
C:\Users\shiva> python -u "C:/Users/shiva/Downloads/2020406_ai/ai_a5_interface.py"
Select your branch from the following (CSE, ECE and CSE): ece
Please enter your GPA: 9
Do you have good programming skills? y
Do you have high level knowledge in maths and like doing it? y
Do you have good knowledge in statistics? y
Do you know c plus plus? y
Do you know python? y
Do you know java? y
Do you know matlab? y
Have you done dsa? y
Have you done ia? y
Have you done pna? y
Have you done dms? y
Have you done multivariate calculus? y
Have you done principles of communication systems? y
Have you done signals and systems? y
Are you interested in Machine learning field? y
Are you interested working with data? y
Do you like analysing and designing complex algorithms? y
Are you interested in network systems? y
Are you interested in operating systems? y

Thank you for your responses!!

Below is the list of recommended electives for you based on your interests/choices
[machine learning, probability and random processes]
```

```
File Edit Selection View Go Run Terminal Help ai_a5_interface.py - Visual Studio Code

ai_a5_interface.py X
C:\Users> shiva > Downloads > 2020406_ai > 2020406_ai > ai_a5_interface.py > ...
1 import nltk
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PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

[machine_learning,probability_and_random_processes]
Below is the list of recommended electives for you based on your Interests/choices
[machine_learning]
Below is the list of recommended electives for you based on your Interests/choices
[probability_and_random_processes]
Below is the list of recommended electives for you based on your Interests/choices
[]
C:\Users\shiva>python -u "C:/Users/shiva/Downloads/2020406_ai/2020406_ai/ai_a5_interface.py"
Select your branch from the following (CSE, ECE and CSE): cse
Please enter your GPA: 8
Do you have good programming skills? y
Do you have high level knowledge in maths and like doing it? y
Do you have good knowledge in statistics? y
Do you know c_plus_plus? n
Do you know python? y
Do you know java? y
Do you know mysql? y
Have you done ds? y
Have you done ia? y
Have you done ps? y
Have you done dms? n
Have you done multivariate calculus? n
Have you done principles of communication systems? n
Have you done signals and systems? n
Are you interested in Machine learning field? y
Are you interested working with data? y
Do you like analysing and designing complex algorithms? n
Are you interested in network systems? n
Are you interested in operating systems? n

Thank you for your responses!!

Below is the list of recommended electives for you based on your Interests/choices
[machine_learning_for_bio_medical_applications,data_sciences_in_genomics,big_data_mining_in_healthcare]
```

```
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ai_a5_interface.py X
C:\Users> shiva > Downloads > 2020406_ai > 2020406_ai > ai_a5_interface.py > ...
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PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

Thank you for your responses!!

Below is the list of recommended electives for you based on your Interests/choices
[]
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Do you have good programming skills? y
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Do you know python? y
Do you know java? y
Do you know mysql? y
Have you done ds? y
Have you done ia? y
Have you done ps? y
Have you done dms? y
Have you done multivariate calculus? y
Have you done principles of communication systems? y
Have you done signals and systems? y
Are you interested in Machine learning field? y
Are you interested working with data? n
Do you like analysing and designing complex algorithms? n
Are you interested in network systems? y
Are you interested in operating systems? y

Thank you for your responses!!

Below is the list of recommended electives for you based on your Interests/choices
[mobile_computing,network_anonymity_and_privacy]
```

```
SWI-Prolog (AMD64, Multi-threaded, version 8.4.3)
File Edit Settings Run Debug Help
Welcome to SWI-Prolog (threaded, 64 bits, version 8.4.3)
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.
Please run ?- license. for legal details.

For online help and background, visit https://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?-
% c:/Users/shiva/Downloads/AI-A5-Shivagupta-2020406/2020406_ai (assignment 1).pl compiled 0.00 sec, 20 clauses
?- electiveguide.

Thank you for your responses!!

Below is the list of recommended electives for you based on your interests/choices
[machine_learning,advanced_algorithms,mobile_computing,network_anonymity_and_privacy]
true
```