

ARTIFICIAL INTELLIGENCE

ASSIGNMENT-5

AASTHA 2019224

Nature Language Interface in Python

1. The NLP interface provides input to the Electives Advisory System from Assignment 1 developed in prolog.
2. It asks for input from the user, and using the input using tokenization it finds out the branch, semester, prerequisites completed, the CGPA and whether the student has completed a BTP in the field.
3. It then consults the prolog program and suggests the electives using these parameters.

Screenshots

1

Enter your input: I am in monsoon semester. I belong to cse branch. I have completed ada, ip, os. I have a CGPA of 9.04. I have done a BTP in my field of interest.

```
✓ 12s ▶ get_prediction()
[ ] Enter your input: I am in monsoon semester. I belong to cse branch. I have completed ada, ip, os. I have a CGPA of 9.04.

suggest_courses(cse,monsoon,['ada', 'ip', 'os'],9.04,True)

-----Electives Advised-----

We recommend the following electives for you-

compilers
computer_graphics
computer_networks
foundations_of_computer_security
information_integration_and_applications
modern_algorithm_design
network_security
```

2

Enter your input: I am in monsoon semester. I belong to cse branch. I have completed pis. I have a CGPA of 7.9. I have not done a BTP in my field of interest.

✓
37s

▶ get_prediction()

↳ Enter your input: I am in monsoon semester. I belong to cse branch. I have completed pis. I have a

```
suggest_courses(cse,monsoon,[],7.9,false)
```

-----Electives Advised-----

We recommend the following electives for you-

```
compilers
computer_graphics
foundations_of_computer_security
modern_algorithm_design
network_security
```

3

Enter your input: I am in winter semester. I belong to cse branch. I have completed ap, cn, dsa, ip, m3 and os. I have a CGPA of 9.04. I have done a BTP in my field of interest.

✓
16s

▶ get_prediction()

Enter your input: I am in winter semester. I belong to cse branch. I have completed ap, cn, dsa, i

```
suggest_courses(cse,winter,['ap', 'cn', 'dsa', 'ip', 'm3', 'os'],9.04,true)
```

-----Electives Advised-----

We recommend the following electives for you-

```
concurrent_and_learned_datastructures
decision_procedures
foundations_of_parallel_programming
mobile_computing
network_and_system_security_2
theory_of_computation
wireless_network
```

2

4

Enter your input: I am in monsoon semester. I belong to csai branch. I have completed ada, dbms, dsa, ip, m1, m2 and m3. I have a CGPA of 9.04. I have not done a BTP in my field of interest.

```
✓ 3s ▶ get_prediction()  
Enter your input: I am in monsoon semester. I belong to csai branch. I have completed ada, dbms, ds  
suggest_courses(csai,monsoon,['ada', 'dbms', 'dsa', 'ip', 'm1', 'm2', 'm3'],9.04,false)  
  
-----Electives Advised-----  
  
We recommend the following electives for you-  
  
artificial_intellgience  
data_mining  
digital_image_processing  
machine_learning  
natural_language_processing
```

5

Enter your input: I am in monsoon semester. I belong to design branch. I have completed dis. I have a CGPA of 7. I have not done a BTP in my field of interest.

```
✓ 5s ▶ get_prediction()  
Enter your input: I am in monsoon semester. I belong to design branch. I have completed dis. I have  
suggest_courses(design,monsoon,['dis'],7.0,false)  
  
-----Electives Advised-----  
  
We recommend the following electives for you-  
  
animation_filmmaking_3d  
introduction_to_animation_and_graphics
```

3

Enter your input: I am in winter semester. I belong to maths branch. I have completed m1 and m2. I have a CGPA of 9.04. I have not done a BTP in my field of interest.

```
get_prediction()  
  
Enter your input: I am in winter semester. I belong to maths branch. I have completed m1 and m2. I  
suggest_courses(maths,winter,['m1', 'm2'],9.04,false)  
  
-----Electives Advised-----  
  
We recommend the following electives for you-  
  
advanced_linear_algebra  
graph_theory  
introduction_to_mathematical_logic  
linear_optimization  
statistical_inference
```