AI Assignment -3

Pankaj Kumar
2019262

```
pankaj@Pankajs-MacBook-Air Assignment-3 % cd "/Users/pankaj/Desktop/Assignment-3/" && python AI.py
------------------------- Welcome to the Career Advisory System -------------------------
Enter the NAME : Pankaj
Enter the Roll No : 2019262
Enter the Branch : CSAM
Enter the GPA : 7.5
Enter the Year
 1. First Year
 2. Second year
 3. Third Year
 4. Fourth Year
3
Hello Pankaj 2019262 CSAM and Welcome to the Career Advisory System
Enter Your 4 Courses you have done so far [Machine Learning ,Deep Learning , Artificial Intelligence,NLP, OS, CN, FCS, DBMS]
Machine Learning
Deep Learning
Artificial Intelligence
NLP
Are you interested in Maths ? Y/N Y
Are you interested in Database ? Y/N Y
Are you interested in Android Development ? Y/N Y
Are you interested in Network Security ? Y/N Y
['Machine Learning', 'Deep Learning', 'Artificial Intelligence', 'NLP']
Recomended Data Scientist
Recommend Buisness Intelligence Developer
Recommend Big Data Engineer
Strongly Recommended Data Scientist
Strongly Recommended Machine Learning Engineer
Recommended: Web Development
pankaj@Pankajs-MacBook-Air Assignment-3 %
```

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Enter the Branch : CSAM
Enter the GPA : 7.5
Enter the Year
 1. First Year
 2. Second year
 3. Third Year
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1
Hello Pankaj 2019262 CSAM and Welcome to the Career Advisory System
You need some more experience, Please do some more courses later on
Recommended: Web Development
pankaj@Pankajs-MacBook-Air Assignment-3 %
```

Source Code

```
from durable.lang import *
with ruleset('interests'):
    @when_all(m.year == 1)
    def first(c):
        print("You need some more experience, Please do
some more courses later on ")

    @when_all(m.year == 2)
    def first(c):
        print("You need some more experience, Please do
some more courses later on ")

    # Data Scientist Recommended
    @when_all((m.interest.anyItem(item == 'Machine
Learning')) & (m.interest.anyItem(item == 'Deep
Learning')) &  (m.interest.anyItem(item != 'NLP')) &
(m.interest.anyItem(item == 'Artificial Intelligence')) &
(m.grades >= 7) & (m.year >= 3))
    def data_sci(c):
        print("Recomended Data Scientist")
        c.assert_fact('recommend', {'type': 'AI',
'grades': c.m.grades})
        c.assert_fact('suggest', {'type': 'AI', 'grades':
c.m.grades})

    # Data Scientist Strongly Recommended
```

```
    @when_all((m.interest.anyItem(item == 'Machine
Learning')) & (m.interest.anyItem(item == 'Deep
Learning')) & (m.interest.anyItem(item == 'Artificial
Intelligence')) & (m.interest.anyItem(item == 'NLP')) &
(m.grades >= 7) & (m.year >= 3))
    def data_sci1(c):
        print("Strongly Recommended Data Scientist")
        c.assert_fact('recommend', {'type': 'AI',
'grades': c.m.grades})
        c.assert_fact('suggest', {'type': 'AI', 'grades':
c.m.grades})

    # Machine Learning Engineer
    @when_all((m.interest.anyItem(item == 'Machine
Learning')) & (m.interest.anyItem(item == 'Deep
Learning')) & (m.interest.anyItem(item == 'Artificial
Intelligence')) & (m.interest.anyItem(item == 'NLP')) &
(m.grades >= 7) & (m.year >= 3))
    def data_ml1(c):
        print("Strongly Recommended Machine Learning
Engineer")
        c.assert_fact('recommend', {'type': 'AI',
'grades': c.m.grades})
        c.assert_fact('suggest', {'type': 'AI', 'grades':
c.m.grades})

    # Network Security Engineer
```

```
    @when_all((m.interest.anyItem(item == 'FCS' and
item=='CN')) & (m.interest.anyItem(item == 'Deep
Learning')) and not(m.interest.anyItem(item == 'OS')) &
(m.year >= 3))
    def ns(c):
        print("Recommended Network Security Engineer")
        c.assert_fact('recommend', {'type': 'Security',
'grades': c.m.grades})
        c.assert_fact('suggest', {'type': 'AI', 'grades':
c.m.grades})

    # Network Security Engineer
    @when_all((m.interest.anyItem(item == 'FCS' )) &
(m.interest.anyItem(item == 'CN')) &
(m.interest.anyItem(item == 'OS')) & (m.year >= 3))
    def ns(c):
        print("Strongly Recommended Network Security
Engineer")
        c.assert_fact('recommend', {'type': 'Security',
'grades': c.m.grades})
        c.assert_fact('suggest', {'type': 'AI', 'grades':
c.m.grades})
    # devOPS

    @when_all((m.interest.anyItem(item == 'DBMS')) &
(m.year >= 3))
    def devops(c):
        print("Strongly Recommended DevOPS")
```

```
        c.assert_fact('recommend', {'type': 'Database',
'grades': c.m.grades})
        c.assert_fact('suggest', {'type': 'AI', 'grades':
c.m.grades})

    @when_all(+m.interest)
    def no_recommendation(c):
        print("Recommended: Web Development")

with ruleset('recommend'):
    @when_all((m.type == 'AI') & (m.grades > 6))
    def ec(e):
        print("Recommend Buisness Intelligence Developer")

    @when_all((m.type == 'Database') & (m.grades > 6))
    def ec1(e):
        print("Recommend Database Administrator")

    @when_all((m.type == 'Security') & (m.grades > 6))
    def ec2(e):
        print("Recommend Analyst Cybersecurity
Consultant")

with ruleset('suggest'):
    @when_all((m.type == 'AI') & (m.grades > 6))
    def ec(e):
        print("Recommend Big Data Engineer")
```

```
    @when_all((m.type == 'Database') & (m.grades > 6))
    def ec1(e):
        print("Recommend Certified Computer Examiner")

    @when_all((m.type == 'Security') & (m.grades > 6))
    def ec2(e):
        print("Recommend Cybersecurity Architect
Networking Software Development ")


#assert_fact('interests', { 'interest': ['Machine
Learning','Artificial Intelligence','Deep Learning'],
'grades': 7.5 , 'year':3})
#assert_fact('interests', {'interest': ['FCS', 'CN',
'OS'], 'grades': 7.5, 'year': 3})


def courses():
    pass
    print("-------------------------- Welcome to the
Career Advisory System --------------------------")
    name = input("Enter the NAME : ")
    roll = int(input("Enter the Roll No : "))
    branch = input("Enter the Branch : ")
    gpa=float(input("Enter the GPA : "))
    year = int(
        input("Enter the Year\n 1. First Year\n 2. Second
year\n 3. Third Year\n 4. Fourth Year\n"))
```

```
    print("Hello "+name+" "+str(roll)+" "+branch+" " +
          "and Welcome to the Career Advisory System ")
    if(year!=1 and year!=2):
        print("Enter Your 4 Courses you have done so far
[Machine Learning ,Deep Learning , Artificial
Intelligence,NLP, OS, CN, FCS, DBMS]")
        done_course = []
        for i in range(0, 4):
            c = input()
            done_course.append(c)
        math = input("Are you interested in Maths ? Y/N ")
        database = input("Are you interested in Database ?
Y/N ")
        android = input("Are you interested in Android
Development ? Y/N ")
        cybersecurity = input("Are you interested in
Network Security ? Y/N ")
        print(done_course)
        assert_fact('interests', {'interest': done_course,
'grades': gpa, 'year': year})
    else:
        assert_fact('interests', {'interest': [],
'grades': gpa, 'year': year})


courses()
```