

Python 3.8.3 (default, Jul 2 2020, 17:30:36) [MSC v.1916 64 bit (AMD64)]
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IPython 7.16.1 -- An enhanced Interactive Python.

```
In [1]: 'C:/Technical/MSc/Semester1/Mandatory/Knowledge Representation/  
GIT/aima-python/Assignment2/A2_COMP9016_PENDSE_SHANKAR_R00195877.PY' = 'C:/  
Technical/MSc/Semester1/Mandatory/Knowledge Representation/GIT/aima-python/  
Assignment2'
```

*****Executing Question 1.1.1*****

Probability distribution table for Study_hard

Always: 0.5, Never: 0.0217, Often: 0.261, Rarely: 0.087,
Sometimes: 0.13

Probability distribution table for Get_rest

Always: 0.0588, Never: 0.353, Often: 0.118, Rarely: 0.118,
Sometimes: 0.353

Probability distribution table for Set_alarm

Always: 0.103, Never: 0.615, Often: 0.103, Rarely: 0.0513,
Sometimes: 0.128

*****Executing Question 1.1.2*****

Model involving Traffic, FossilFuel, GlobalWarming and RenewableEnergy as nodes:
[('Traffic', ''), ('FossilFuel', ''), ('GlobalWarming', 'Traffic FossilFuel'),
('RenewableEnergy', 'GlobalWarming FossilFuel')]

Model involving AI and Employed as nodes:
[('AI', ''), ('Employed', 'AI')]

Associated conditional Probability tables for modell_1

GlobalWarming {(True, True): 0.95, (True, False): 0.94, (False, True): 0.29,
(False, False): 0.001}

RenewableEnergy {(True, True): 0.95, (True, False): 0.94, (False, True): 0.8,
(False, False): 0.001}

Associated conditional probability tables for modell_2

Employed: {(True,): 0.05, (False,): 0.95}

Running sample queries for modell_1

0.95

0.999

0.060000000000000005

Running sample queries for modell_2

0.95

```
*****Executing Question 1.2.1*****
```

Prior Probabilities:

```
{'B': 0.0784, 'R': 0.4608, 'L': 0.4608}
```

Probability of evidences (each row of data):

[illegible]

[illegible]

[illegible]

[illegible]

Probability of likelihood of evidences:

[illegible]

[illegible]

[illegible]

[illegible]

Accuracy of Naive Bayes classifier is 92.16 %