B Praneeth

1BM18CS023

# ML lab test – 1

## Output screenshots:

```
Sample instances from the dataset are given below
    smart   study  prepared  fair  passExam
0      0      0          0     0         0
1      0      1          1     0         0
2      1      0          0     0         0
3      1      1          1     0         0
4      0      0          0     1         0

 Attributes and datatypes
smart        int64
study        int64
prepared     int64
fair         int64
passExam     int64
dtype: object
```

```
Finding Elimination Order: : 100%|███████████| 3/3 [00:00<00:00, 390.41it/s]
Eliminating: smart: 100%|███████████| 3/3 [00:00<00:00, 286.67it/s]
 Learning CPD using Maximum likelihood estimators

 Inferencing with Bayesian Network:

 1.Probability that a student studied given that he passed the exam
+----------+--------------+
| study    |   phi(study) |
+==========+==============+
| study(0) |       0.3333 |
+----------+--------------+
| study(1) |       0.6667 |
+----------+--------------+
Therefore the probablitiy that the student had studied given he passed the exam is is: 0.6667
```