In [8]:

```
import pandas as pd
import numpy as np

data=pd.read_csv("heart_disease_data1.csv")
heart_disease=pd.DataFrame(data)
from pgmpy.models import BayesianModel
from pgmpy.estimators import MaximumLikelihoodEstimator, BayesianEstimator
l = [('age','Lifestyle'),('Gender','Lifestyle'),('Family','heartdisease'),('diet','choles

model=BayesianModel(l)
model.fit(data, estimator=MaximumLikelihoodEstimator)
from pgmpy.inference import VariableElimination
HeartDisease_infer = VariableElimination(model)
print('For age enter SuperSeniorCitizen:0, SeniorCitizen:1, MiddleAged:2, Youth:3, Teen:4
print('For Gender Enter Male:0, Female:1')
print('For Family History Enter yes:1, No:0')
print('For diet Enter High:0, Medium:1')
print('for lifeStyle Enter Athlete:0, Active:1, Moderate:2, Sedetary:3')
print('for cholesterol Enter High:0, BorderLine:1, Normal:2')
q = HeartDisease_infer.query(variables=['heartdisease'], evidence={'age':int(input('enter
print(q['heartdisease'])
```

```
For age enter SuperSeniorCitizen:0, SeniorCitizen:1, MiddleAged:2, Youth:3, Teen:4
For Gender Enter Male:0, Female:1
For Family History Enter yes:1, No:0
For diet Enter High:0, Medium:1
for lifeStyle Enter Athlete:0, Active:1, Moderate:2, Sedetary:3
for cholesterol Enter High:0, BorderLine:1, Normal:2
enter age0
enter Gender0
enter Family history0
enter diet0
enter Lifestyle0
enter cholestrol0
```

heartdisease	phi(heartdisease)
heartdisease_0	0.5000
heartdisease_1	0.5000

```
#
```

In [ ]:

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