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In [2]:  import numpy as np
         import pandas as pd
         import csv
         from pgmpy.estimators import MaximumLikelihoodEstimator
         from pgmpy.models import BayesianModel
         from pgmpy.inference import VariableElimination
         heartDisease = pd.read_csv('heart.csv')
         heartDisease = heartDisease.replace('?',np.nan)
         print('Sample instances from the dataset are given below')
         print(heartDisease.head())
         print('\n Attributes and datatypes')
         print(heartDisease.dtypes)
         model =BayesianModel([('age','heartdisease'),('sex','heartdisease'),('exang',
         'heartdisease'),('cp','heartdisease'),('heartdisease',
         'restecg'),('heartdisease','chol')])
         print('\n Learning CPD using Maximum likelihood estimators')
         model.fit(heartDisease,estimator=MaximumLikelihoodEstimator)
         print('\n Inferencing with Bayesian Network:')
         HeartDiseasetest_infer = VariableElimination(model)
         print('\n 1.Probability of HeartDisease given evidence=restecg :1')
         q1=HeartDiseasetest_infer.query(variables=['heartdisease'],evidence={'restecg'
         :1})
         print(q1)
         print('\n 2.Probability of HeartDisease given evidence= cp:2 ')
         q2=HeartDiseasetest_infer.query(variables=['heartdisease'],evidence={'cp':2})
         print(q2)
```