Artificial Intelligence Lab-5

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Part-1:

In this part of the Lab assignment, we implemented exact inference using variable elimination (in C++) for drawing inference from a Bayesian network.

Part-2:

In this part of Lab assignment, we implemented approximate inference using rejection sampling (in Python).

We have set the number of samples to be generated to 500. Ignored all the values which are inconsistent with the evidence.

Implementation :

For i = 1 to N:

Sample Xi from P (Xi/Parents(Xi))

If Xi not consistent with evidence:

Reject: return, and no sample is generated.

Return (X1,X2,…Xn)