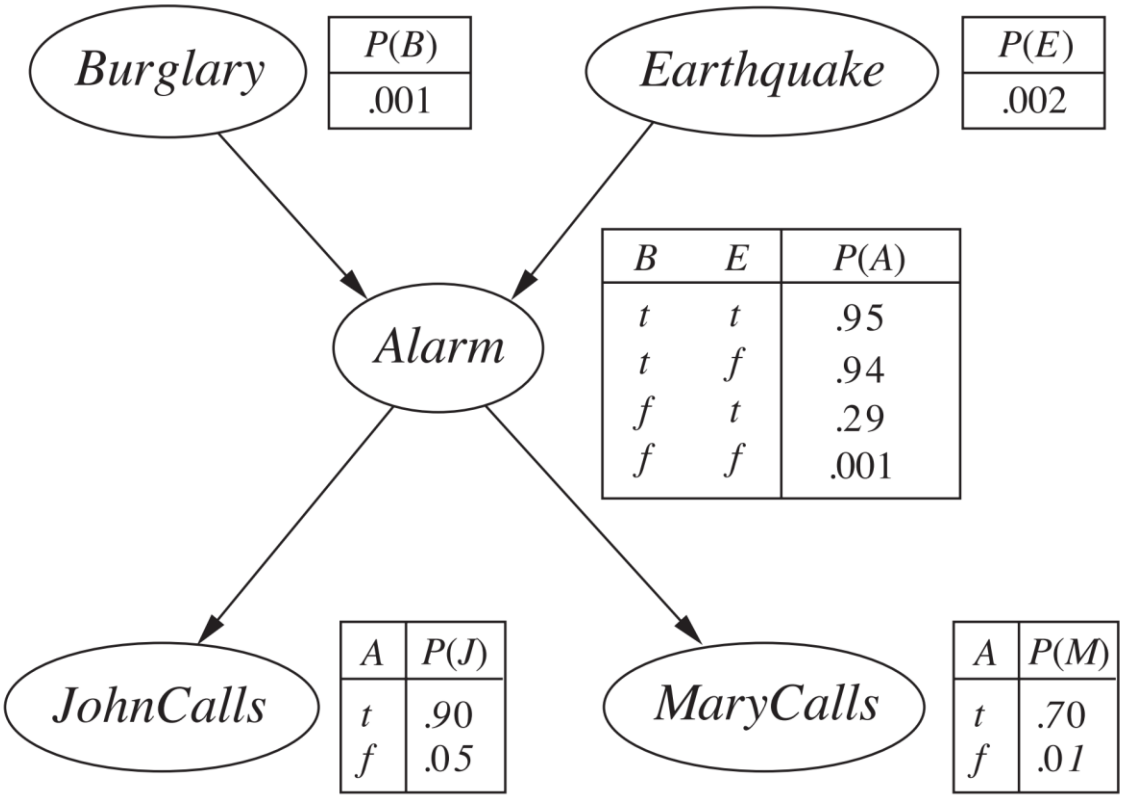
Practical-6

Aim: Write a python program to implement Bayesian Network to model probabilistic reasoning for a burglary alarm system.

- Create Python Program to implement below Bayesian network.
- Create Python Classes: BayesNode, BurglaryAlarmProb
- Find Out below Queries by using program:
- P(J,B), P(J',B), P(J',B'), P(J,B'), P(M,B), P(M',B), P(M',B'), P(M,B'), P(J), P(M), P(J'), P(M'), P(A), P(A'), P(B|M), P(B'|M), P(B|J), P(B'|J)

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P(J,B) = 0.0008490170000000001
P(J',B) = 0.00015098300000000004
P(J',B') = 0.9477100412999999
P(J,B') = 0.0512899587
P(M,B) = 0.0006586138
P(M',B) = 0.00034138620000000007
P(M',B') = 0.9879222688199999
P(M,B') = 0.01107773118
P(J) = 0.052138975700000006
P(M) = 0.01173634498
P(J') = 0.9478610243
P(M') = 0.98826365502
P(A) = 0.002516442
P(A') = 0.997483558
P(B|M) = 0.05611745403891493
P(B'|M) = 0.943882545961085
P(B|J) = 0.016283729946769937
P(B'|J) = 0.9837162700532299
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