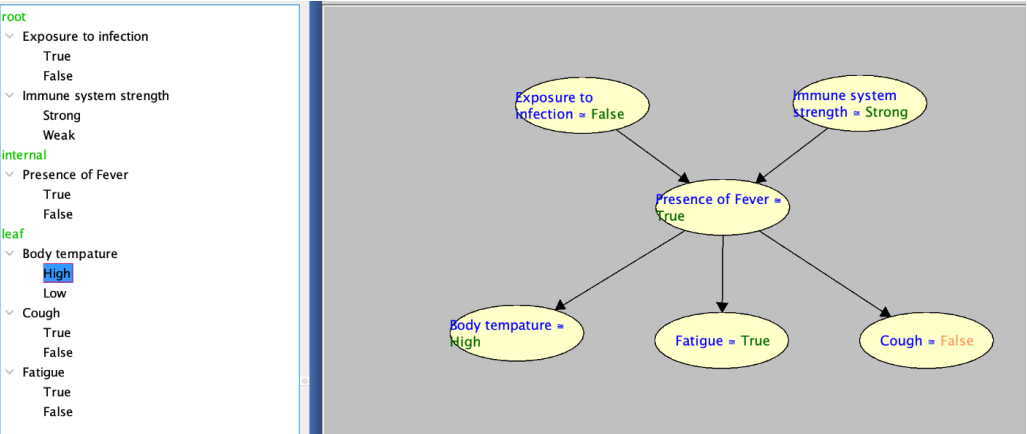


(a) One slide presenting a diagram of the network and the CPT tables.



Body temperature:

| Presence o... | True | False |
|---------------|------|-------|
| High          | 0.9  | 0.2   |
| Low           | 0.1  | 0.8   |

Fatigue:

| Presence o... | True | False |
|---------------|------|-------|
| True          | 0.7  | 0.4   |
| False         | 0.3  | 0.6   |

Exposure to infection::

| True  | 0.3 |
|-------|-----|
| False | 0.7 |

Immune system strength:

| Strong | 0.6 |
|--------|-----|
| Weak   | 0.4 |

Cough:

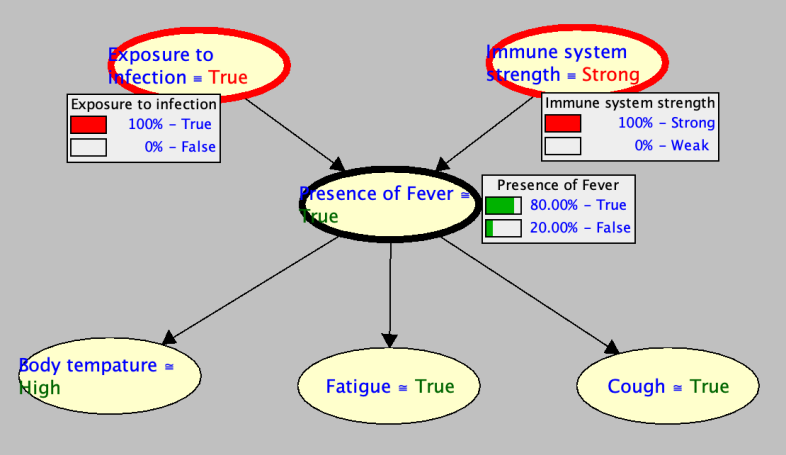
| Presence o... | True | False |
|---------------|------|-------|
| True          | 0.6  | 0.3   |
| False         | 0.4  | 0.7   |

Presence of fever:

| Exposure t... | True   |      | False  |      |
|---------------|--------|------|--------|------|
| Immune sy...  | Strong | Weak | Strong | Weak |
| True          | 0.8    | 0.95 | 0.3    | 0.6  |
| False         | 0.2    | 0.05 | 0.7    | 0.4  |

(b) One slide describing the two test cases, and presenting the posterior probabilities you computed.

$P(F=True|E=True, I=Strong) = 0.8$  meaning the probability of fever when exposed to infection and having a strong immune system is 80%



$P(G|F): P(G=True|F=True) = 0.7$  meaning the probability of fatigue when having a fever is 70%.

