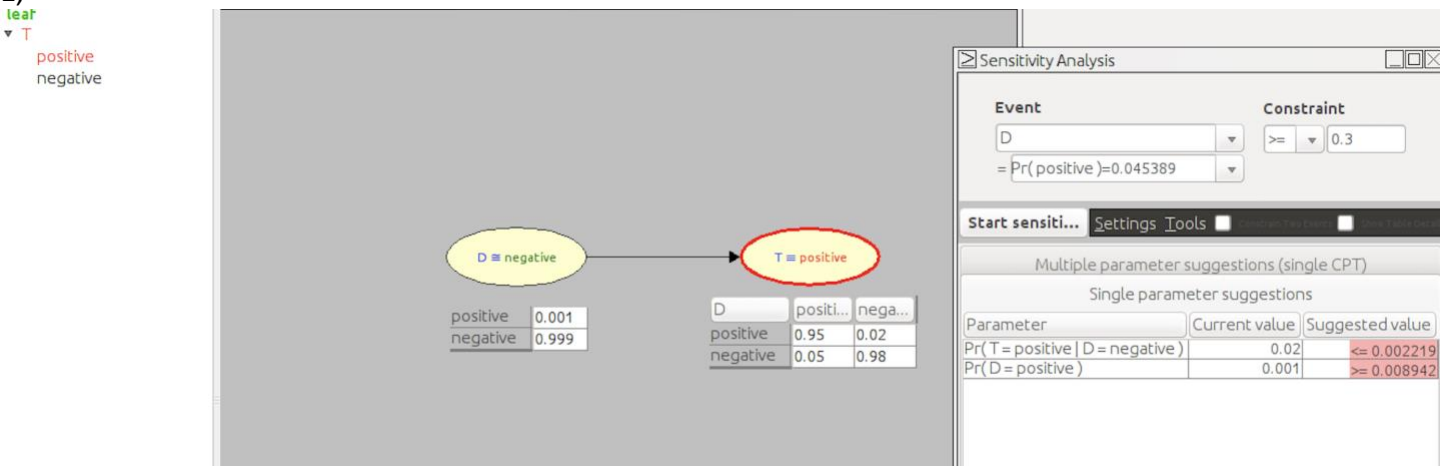
Gawun Kim
305-186-572
CS161 - HW8

1,



- When setting Pr(D | T) ≥ 0.3 and T(test) is positive, I would be able to gained the following results:

  The current value of Pr(T=positive | D=negative) is 0.02 and its value is less than the suggested value (0.002219).

  The current value of Pr(D=positive) is 0.001 and its value is bigger than the suggested value (0.008942).

2,

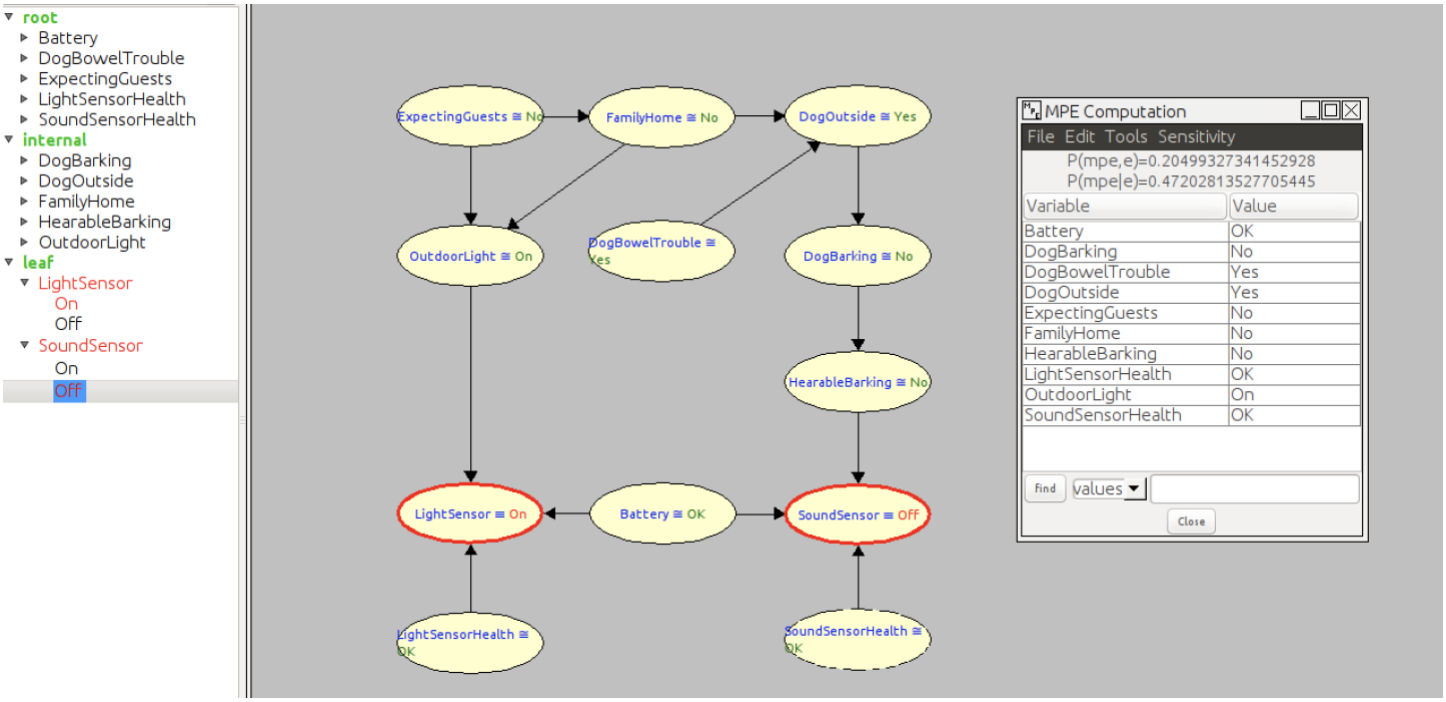
Values(nodes)	Values(states)	
LightSensor	On	Off
HearableBarking	Yes	No
DogBarking	Yes	No
DogBowelTrouble	Yes	No
ExpectingGuests	Yes	No
SoundSensorHealth	OK	Broken
DogOutside	Yes	No
Battery	OK	Dead
SoundSensor	On	Off
LightSensorHealth	OK	Broken
OutdoorLight	On	Off
FamilyHome	Yes	No

b)

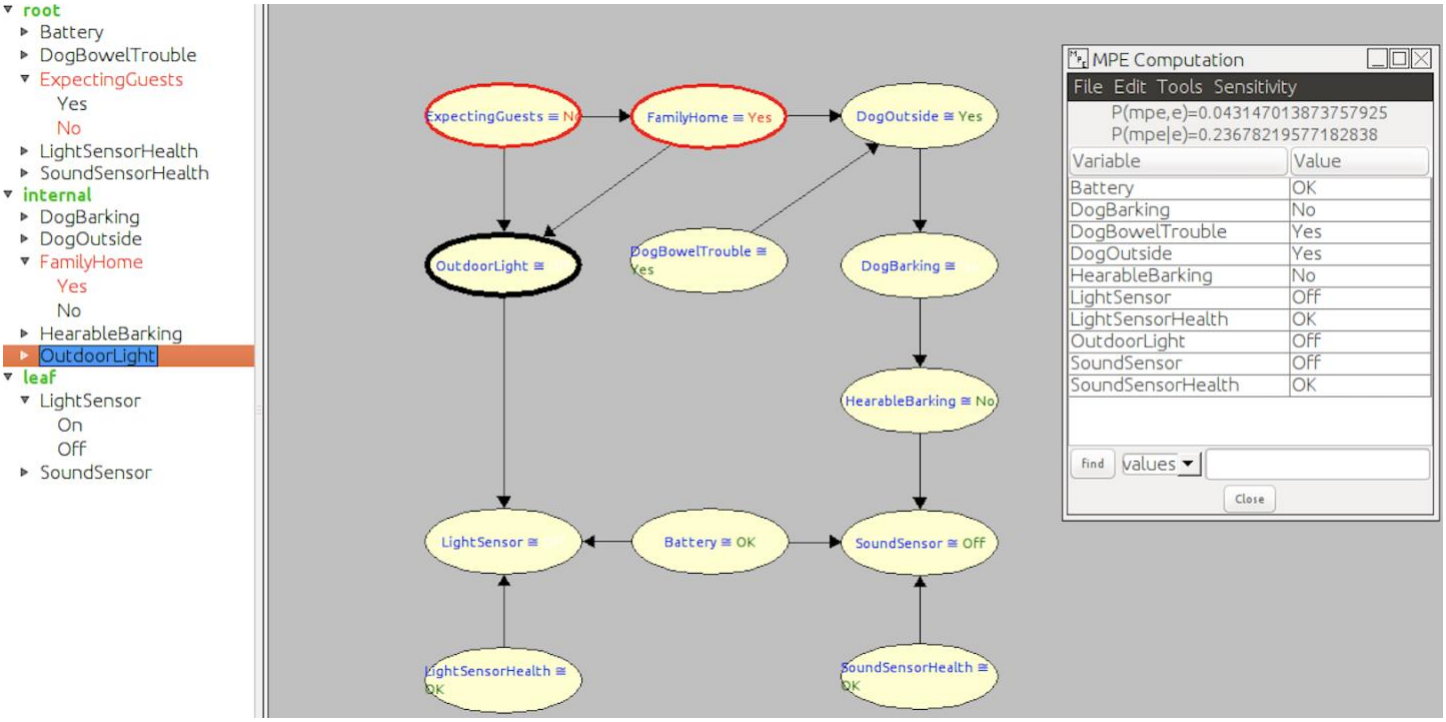
Starting Nodes	Path (toward)	
LightSensor	ExpectingGeust -> FamilyHome	ExpectingGeust -> OutdoorLight
HearableBarking	HearableBarking -> SoundSensor	
DogBarking	DogBarking -> HearableBarking	
DogBowelTrouble	DogBowelTrouble -> DogOutside	
ExpectingGuests		
SoundSensorHealth	SoundSensorHealth -> SoundSensor	
DogOutside	DogOutside -> DogBarking	
Battery	Battery -> SoundSensor	Battery -> LightSensor
SoundSensor		
LightSensorHealth	LightSensorHealth -> LightSensor	
OutdoorLight	OutdoorLight -> LightSensor	
FamilyHome	FamilyHome -> DogOutside	Family Home -> OutdoorLight

c)

- When running EM with sambot.dat, set up the values of LightSensor (as On) and SoundSensor (as No).



- When running EM with sambot.dat, set up the values of ExpectingGuests (as No) and FamilyHome (as Yes).



- There exist various sets of Z and one of the mis {Battery, DogBowelTrouble}. These two d-separate sensors and it does mean that they are independent given Z.
- It is multi-connected network.