

# Quiz 6

3 December 2012

You have up to 25 minutes. You may not use text book or notes.

- Below is a game tree in which player X is deciding which move to make: a, b, or c. The scores across the bottom are the relative value of that game state for player X. Use the *minimax* algorithm to propagate the scores and determine the best move for player X.

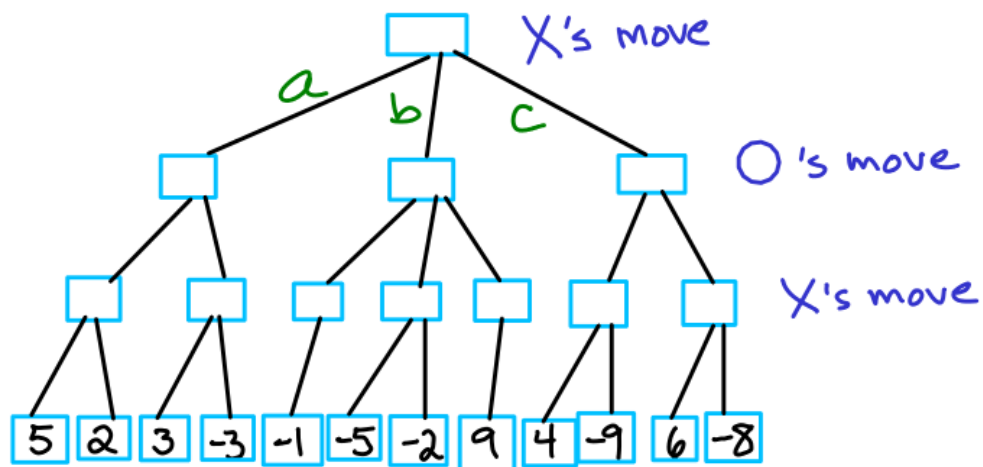


Figure 1:

The questions below refer to the tables on page 3. They are a simple representation of Electronic Medical Records. ID is a primary key. PCP (short for “primary care physician”) is a foreign key referencing the Person table. Patient and Prescriber are both foreign keys referencing the Person table. Medication is a foreign key referencing the Medication table.

2. Who is the youngest Person in the database?
  
3. How many prescriptions are there for Lunesta?
  
4. Which patients have *exactly one* prescription?
  
5. Which patients have prescriptions from someone *other than* their primary care physician?
  
6. Does anyone prescribe the same medication to multiple patients?

**Person**

ID*	FirstName	LastName	BirthDate	PCP^
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1	Alice	Armont	1980-05-03	3
2	Bob	Bartlett	1990-11-12	3
3	Chuck	Canner	1972-08-14	1
4	Diane	Denton	1985-12-21	3
5	Enzo	Eng	1994-07-08	1

**Medication**

ID*	GenericName	BrandName	Manufacturer
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1	atorvastatin	Lipitor	Pfizer
2	eszopiclone	Lunesta	Sepracor
3	lansoprazole	Prevacid	--
4	prasugrel	Effient	Daiichi
5	carvedilol	Coreg	--
6	fluoxetine	Prozac	--

**Prescription**

Patient^	Medication^	Dose	Date	Prescriber^
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1	1	40 mg	2012/11/28	3
1	2	5 mg	2012/09/13	4
2	3	10 mg	2012/10/31	3
3	2	10 mg	2012/09/18	4
4	4	20 mg	2012/10/11	3
4	5	5 mg	2012/10/11	1
5	2	25 mg	2012/08/21	4
5	1	20 mg	2012/11/28	1
5	6	10 mg	2012/11/01	3