

CS-661 AI Assignment 8

1. Which of the following is true of PROLOG? Explain.
 1. PROLOG is declarative
 2. all PROLOG does is rule matching and backtracking
 3. PROLOG is similar to LISP
 4. PROLOG has procedural elements
 5. PROLOG is exactly equivalent to predicate logic
 6. PROLOG can handle only Horn sentences
 7. PROLOG uses backward chaining with depth first search
 8. forward chaining can not be used in PROLOG
 9. PROLOG sometimes uses breadth first search
 10. PROLOG's inference method is sound
2. Write a PROLOG program to find a path from Arad to Bucharest.
3. Write a PROLOG program to solve the 8 queens problem.
4. Write a PROLOG program that generates random syntactically correct English sentences. A sentence is composed of a subject and predicate. A subject is either a name, a pronoun or an article and a noun. A predicate is either a intransitive verb or a transitive verb, an article and a noun.