**CS 571**

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**HW9**

**Write PROLOG code to solve the full 8 × 8 knights’ tour problem.  Use the production system architecture proposed in this chapter and Chapter 5.  Create the code so that you can get the program to solve a number of different tasks, such as getting from any one square to another.**

**Execute this code and draw a graph of the search space.**

**Answer the above question, write the answer in a word processor. Then, use your Prolog program to show how to move the knight from square (1,1) to another square (1,4) and put the script of testing your query in a text file.**

Answer:

The rules for path is check left and up 🡪 left and down 🡪 right and up 🡪 right and down.

**a. one possible path from (1,1) to (1,4)**

(2,2)

(1,4)

(1,1)

(2,3)

(3,2)

(1,5)

(3,4)

**b. one possible path from (1,4) to (1,1)**

(1,1)

(1,3)

(3,2)

(3,3)

(2,1)

(4,1)

(1,4)

(2,2)

(2,6)