CSCE420: Introduction to Artificial Intelligence
Programming Assignment 3 : Introductory Prolog

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1 Problem Domain

This assignment is intended to build familiarity with the Prolog programming language.

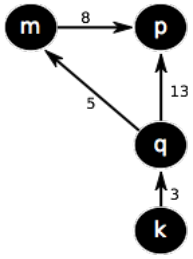
2 Project Infrastructure

You will need to download and install your own version of SWI-Prolog. It is freely available from `http://www.swi-prolog.org/` for major operating systems. Major Linux distributions have copies available within their package system.

3 Problem

You are given a directed graph specified in what is termed "arc-clausal form" where, a prolog clause (or fact) is specified for each edge. An example graph and its representation appears below.

```
arc(m,p,8).
arc(q,p,13).
arc(q,m,5).
arc(k,q,3).
```



Write a Prolog predicate `path(A,B,P)` that returns the shortest path from `A` to `B`.

4 Submission

Due date: 14 February at 11:59pm.
Submission method: Via e-mail to the professor.

Submit in the following (electronic) form:

1. Turn in a zip file which includes all the source files and a documentation like pdf file, with the items below. (Do not describe your results in the e-mail)
2. The zip file should be named `student-last-name_hw-number.zip` *e.g.,* `Jones_hw3.zip`
3. Subject of e-mail should be named as `[csce420]last-name_hw-number` *e.g.,* `[csce420]Jones_hw3`

The zip should include the following:

1. The code you wrote for this assignment.
2. A description of how to run the submission.
3. A list of the resources used (*e.g.*, online forums, links to example code on the web, *etc.*).
4. A statement of the Aggie Code of Honor.

You may discuss this openly with your friends and classmates, but are expected to write your own code and compile your submission independently. If in doubt about whether a resource you used should be included in item 4 above, err on the side of caution and include it.