1. Suppose I have the following graph.

```
arc(m,p,8).
arc(q,p,11).
arc(q,m,5).
arc(k,q,3).
arc(d,k,2).
arc(h,k,4).
arc(a,d,3).
arc(a,h,1).
```

   a. First load the file

   ```
   ?- ['graph.pl'].
   ```

   b. Then query

   ```
   ?- path(a,p,X).
   ```

   c. It will return

   ```
   X = [[a, d, k, q, p], 19]
   ```

   d. Press ; It will query again to see if there is any more answer (i.e. some other paths that are also shortest). It will return

   ```
   X = [[a, d, k, q, p], 19] ;
   X = [[a, h, k, q, p], 19]
   ```

2. Resource used
   https://www.csupomona.edu/~jrfisher/www/prolog_tutorial/2_12.html
   http://www.swi-prolog.org/
3. An Aggie does not lie, cheat or steal or tolerate those who do.