ASSIGNMENT 1
ARTIFICIAL INTELLIGENCE – ATAYLOR
SUBMISSION MODE: Document and code file will be emailed to me with the subject: **YOUR SURNAME_Prolog_Assignment1**
Submission that do not use this subject will not be accepted.
Due Date: 29th May 2019

A) Install Swi-Prolog on your machine.

B) Consider the following knowledge base written in Prolog. Put them in a file with the name "family.pl".

1. person(aaron).
2. person(juliet).
3. person(rebecca).
4. person(mark).
5. person(jennifer).
6. person(irving).
7. person(gail).
8. person(yin).
9. person(paul).
10. person(deb).
11. person(jocelyn).
12. father(mark,aaron).
13. father(mark, rebecca).
14. father(irvin,mark).
15. father(paul,jennifer).
16. mother(jennifer, aaron).
17. mother(jennifer,rebecca).
18. mother(gail,mark).
19. mother(gail,deb).
20. mother(yin,jennifer).
21. mother(deb,jocelyn).

22. parent(X,Y):-father(X,Y);mother(X,Y).
23. grandparent(X,Y):-parent(X,Z),parent(Z,Y).

Lines 1 to 21 are called facts. Facts finish with full stop in Prolog.

Lines 22 and 23 define rules. The first one defines the ralation called parent and uses a disjunction denoted by ";" (this is the logical OR).

C) See the Blackburn book on an introduction to Prolog. Read the first chapters especially to get familiar with the Prolog syntax. http://www.learnprolognow.org/

D) Open the Swi-Prolog shell and consult the knowledge base you have just defined.

?- consult('ex1.pl').

(This assumes that you are in the same directory where the file is when you run Swi-Prolog otherwise you need to use full path to the file.)

E) What happens when you run the following queries at the command line in Prolog

?- parent(X,aaron).
?- grandparent(X,aaron).

F) Write 10 other queries on this knowledge database.
G) Define a rule called

sibling(X,Y) :-

H) Run queries using siblings and test how correctly you defined it.

I) Create a knowledge base with the genealogy of Jesus found in Matthew 1: 1-17.

J) Run 5 queries on the knowledge base you created at I.

END OF ASSIGNMENT