Output

April 3, 2025

1 Question 1 output

```
emilyberlinghoff@Big-Mac Assignment 4 % swipl
Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.9)
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.
Please run ?- license. for legal details.

For online help and background, visit https://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?- ['251287809.pl'].
true.

?- a_pair_of_brother(X, Y).
X = jay,
Y = john2 .

?- grandparent(X, john2).
X = sue .

?- grandfather(X, mary).
X = john1 .

?-
|    ancestor(X, jay).
X = estelle .

?- uncle(X, mary).
X = rob .

?- a_pair_of_brother(X, Y).
X = jay,
Y = john2 .

?- mother_in_law(X, george).
X = sue .

?- brother(X, john2).
X = jay .

?- ▮
```

2 Question 2 output

```
emilyberlinghoff@Big-Mac Assignment 4 % swipl
Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.9)
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.
Please run ?- license. for legal details.

For online help and background, visit https://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?- ['251287809.pl'].
true.

?- query(City).
City = chicago ;
City = chicago .

?-
```

3 Question 3 output

```
emilyberlinghoff@Big-Mac Assignment 4 % swipl
Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.9)
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.
Please run ?- license. for legal details.

For online help and background, visit https://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?- ['251287809.pl'].
true.

?- my_last(X, [a, b, c]).
X = c .

?- my_last(c, [a, b, c]).
true .

?- adjacent(d, f, [a, b, c, d, f, g]).
true .

?- adjacent(f, d, [a, b, c, d, f, g]).
false.

?- adjacent(X, Y, [hello, world, prolog]).
X = hello,
Y = world ;
X = world,
Y = prolog ;
false.

?-
```