# Experiment No. 11

**Aim:** To calculate factorial of a number using Prolog.

**Requirements:** Compatible version of SWI-Prolog.

**Theory:**

**Formula:**

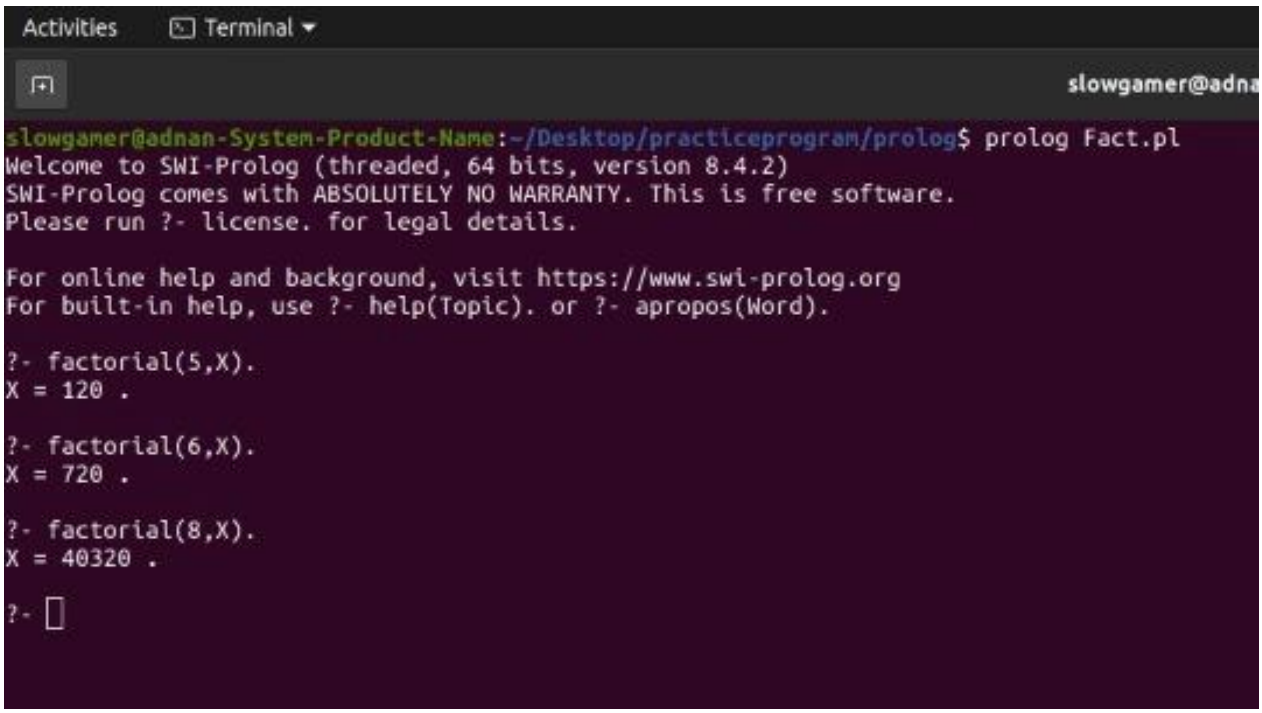
$$F(x) = \begin{cases} 1 & x = 1 \\ x * F(x-1) & x > 1 \end{cases}$$

**Code:**

```
factorial(1,X):- X is 1.

factorial(N,X) :- N1 is N-1, factorial(N1,X1),X is N*X1.
```

**Output:**




**Conclusion:** We have successfully calculated factorial of two number using Prolog.