LAB -7 12/11/24

## Knowledge Base

1. Premise

R1 : Alice is the mother of Bob

R2 : Bob is the father of Charlie

R3 : A father is a parent

R4 : A mother is a parent

R5 : All parents have children

R6 : If someone is a parent, their children are siblings

R7 : Alice is married to David

Step-2 Hypothesis

"Charlie is a sibling of Bob"

Step-3 Entailment Process:

R2 → R3 => Bob is a parent

R5 → Bob has a child since he is a parent

R2 → Charlie is a child of Bob

R6 → If someone is a parent, their children are siblings

Therefore, Charlie being a child of Bob cannot be sibling

# Proposition Logic - Implementation

## Code - Output :

1) Alice is mother of Bob : True
2) Bob is father of Charlie : True
3) A father is present : True
4) A mother is a parent : True .
5) All parents have children : True
6) If someone is a parent, their children are sibilings : ~~True~~ False
7) Alice is married to David : True

Conclusion : Charlie is sibling of Bob : ~~True~~ False..