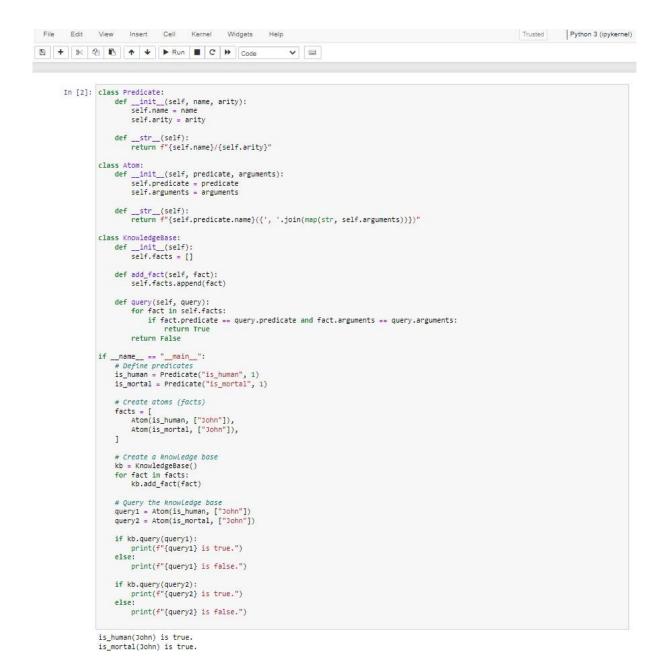
## **Experiment no. 8**

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Aim: Write a program to implement first order Logic in python

## **Program 1 and Output:**



## **Program 2 and Output:**

Is Bob a parent? None

```
class Person:
    def __init__(self, name, gender):
       self.name = name
        self.gender = gender
# Define some individuals
alice = Person("Alice", "female")
bob = Person("Bob", "male")
carol = Person("Carol", "female")
david = Person("David", "male")
# Define a predicate for the parent relationship
def is_parent(parent, child):
    # Implement your specific parent-child relationship logic here
# Define the facts about the parent-child relationships
parent_child_facts = [
    is_parent(alice, bob),
    is_parent(alice, carol),
    is_parent(bob, david)
# Define a predicate for the gender of a person
def has_gender(person, gender):
    return person.gender == gender
# Define some facts about gender
gender_facts = [
    has_gender(alice, "female"),
has_gender(bob, "male"),
    has_gender(carol, "female"),
has_gender(david, "male")
]
# Example query: Is Alice a parent?
print("Is Alice a parent?", is_parent(alice, bob))
# Example query: Is Bob a parent?
print("Is Bob a parent?", is_parent(bob, carol))
Is Alice a parent? None
```

**Conclusion:** Hence we successfully implemented first order Logic in python