1. **Implement a simple FOPC parser for basic logical expressions using python program.**

**Aim:**

To implement a simple FOPC parser for basic logical expressions using Python program.

**Code:**

import re

# Function to parse First-Order Predicate Logic (FOPC) expressions

def parse\_fopc(expression):

pattern = re.compile(r'([A-Z][a-zA-Z]\*)\((.\*?)\)')

matches = pattern.findall(expression)

if matches:

print("\nParsed FOPC Expression:")

for predicate, arguments in matches:

args = arguments.split(',')

print(f"Predicate: {predicate}, Arguments: {args}")

else:

print("Invalid FOPC expression.")

# Take user input for an FOPC expression

expression = input("Enter a First-Order Predicate Logic (FOPC) expression: ")

parse\_fopc(expression)

**Input:**

Enter a First-Order Predicate Logic (FOPC) expression: Loves(John,Mary)

**Output:**

Parsed FOPC Expression:

Predicate: Loves, Arguments: ['John', 'Mary']

