first order logic

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1 First-Order Logic

Import libraries import aima.utils
import aima.logic
The main entry point for this module
def main():
Create an array to hold clauses
clauses = []
Add first-order logic clauses (rules and fact)
clauses.append(aima.utils.expr(”(American(x)
Weapon(y) Sells(x, y, z) Hostile(z)) ==¿
Criminal(x)”))
clauses.append(aima.utils.expr(”Enemy(Nono, America)”))
clauses.append(aima.utils.expr(”Owns(Nono, M1)”))
clauses.append(aima.utils.expr(”Missile(M1)”))
clauses.append(aima.utils.expr(”(Missile(x)
Owns(Nono, x)) ==¿ Sells(West, x, Nono)”))
clauses.append(aima.utils.expr(”American(West)”))
clauses.append(aima.utils.expr(”Missile(x) ==¿
Weapon(x)”)) Create a first-order logic knowledge base (KB)
with clauses KB = aima.logic.FolKB(clauses)
Add rules and facts with tell
KB.tell(aima.utils.expr('Enemy(Coco, America)'))
KB.tell(aima.utils.expr('Enemy(Jojo, America)'))
KB.tell(aima.utils.expr(”Enemy(x, America) ==¿
Hostile(x)”)) Get information from the knowledge base with ask
hostile = KB.ask(aima.utils.expr('Hostile(x)'))
criminal = KB.ask(aima.utils.expr('Criminal(x)'))
Print answers
print('Hostile?')
print(hostile)
print('?')
print(criminal)
print()

Tell python to run main method

if $_{n}ame_{=="}main_{,,:main()}$