

**Experiment 10**

**Aim:** Case Study on Expert System of real world.

**Objective:**

1. To develop an analysis and design ability in students to develop the AI applications in existing domain.
2. Also, to develop technical writing skill in students.

**Theory:**

* 1. This assignment asks students to study and understood recent AI applications.
  2. Write your own report on the design of Expert system application for healthcare domain.

**Code:**

results = [] print("Football Selection")

knowledge\_base = {

'rule1': {

'condition': lambda person: person['age'] >= 16,

'result': 'You are eligible for Selection.' },

'rule2': {

'condition': lambda person: person['weight'] > 35,

'result': 'You meet the weight requirement .'

},

'rule3': {

'condition': lambda person: person['experience'] == 'yes',

'result': 'You have passed the criteria' },

'rule4': {

'condition': lambda person: person['injury'] == 'no', 'result': 'You have passed the medical test'

}

}

# Define a function to evaluate the rules def evaluate\_rules(person): results = [] for rule\_name, rule\_data in knowledge\_base.items(): if rule\_data['condition'](person):

results.append(rule\_data['result']) return results

# Define a sample person sample\_person = {

'age': int(input("age:")),

'weight': int(input("weight:")),

'experience': (input("any experience (Yes or No):")),



'injury': input("any injuries(Yes or No):")

}

# Evaluate the rules for the sample person

eligibility\_results = evaluate\_rules(sample\_person)

# print(len(eligibility\_results))

# Print the results if len(eligibility\_results) >= 3:

print("Selection Eligibility Results:") for result in eligibility\_results: print(result) else: print("You are not eligible for Selection.")

**Output:**

PS D:\Vartak college\SEM 5\AI EXP\New folder> py .\prolog.py

Football Selection age:10 weight:40 any experience (Yes or No):no any injuries(Yes or No):no You are not eligible for Selection.

PS D:\Vartak college\SEM 5\AI EXP\New folder> py .\prolog.py

Football Selection age:20 weight:65 any experience (Yes or No):yes any injuries(Yes or No):no

Selection Eligibility Results:

You are eligible for Selection.

You meet the weight requirement . You have passed the criteria

You have passed the medical test

PS D:\Vartak college\SEM 5\AI EXP\New folder>

**Conclusion:**

Thus, we have to develop an analysis and design ability in students to develop the AI applications in existing domain.