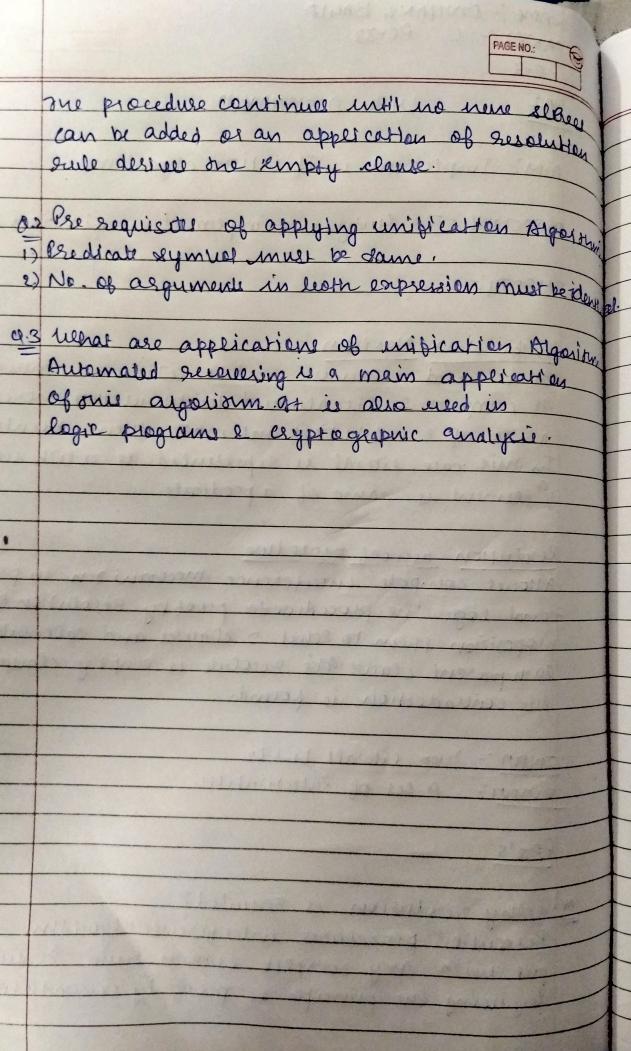
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	AIM! Implement imitication algorithm.
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	OBJECTIVE: To study and implement enrification algo
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	Resolution agasof procedure:  Allower compare interference mechanism in prepartional logic, the procedure to proof by resolution of proposition them to elect a clauses and calculate lampasent clause the resolute is empty clause the contradection in found.  INPUT: Two literals Li lts  Output: A set of Rulestitution.  FAO'S  Very resolution is required?  Resolution procedures interference algorithm when put with any complete season sules. It works
	Resolution aggroof procedure:  Allower compale interference mechanism in preportional logic, the procedure to proof by resolution of proposition them to relect a clauser and calculate lacoparent clause the resolute is empty clause the contradection is found.  INPUT: Two literals Li Pts  Output: A let of Rulestitution.  Frois  Provis  Resolution procedures interpleture algorithm when



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AI - Lab4 Code
import random
class Variable:
    def init (self,value):
        self.value = value
    def eq (self, other):
        return self.value == other.value
class Constant:
    def __init__(self,value):
        self.value = value
    def __eq__(self, other):
        return self.value == other.value
class Rel:
    def __init__(self,name,args):
        #This is a list
        self.name = name
        self.value = str(self.name)+str([i.value for i in args])
        self.args = args
def Unify(L1,L2,testset):
    L1 and L2 are Rel types, variables or constants
    #If both are variable or constants
    if(isinstance(L1, Variable) or isinstance(L2, Variable) or
isinstance(L1,Constant) or isinstance(L2,Constant)):
        if L1 == L2:
            return None
        elif isinstance(L1,Variable):
            if isinstance(L2,Variable):
                print("Both missmatching variables")
                return False
            else:
                if L1.value not in testset.values():
                    return [L2,L1]
                else:
                    print("Ambigious Variable")
                    return False
        elif isinstance(L2,Variable):
            if isinstance(L1,Variable):
                print("Both missmatching variables")
                return False
            else:
                if L2.value not in testset.values():
                    return [L1,L2]
                else:
                    print("Ambigious Variable")
```

```
return False
        else:
            print("Missmatch")
            return False
    #Ensuring the functions are the same
    elif L1.name != L2.name:
        print("Relation Missmatch")
        return False
    #Ensuring the functions have the same number of arguments
    elif len(L1.args) != len(L2.args):
        print("length does not match")
        return False
    SUBSET = \{\}
    for i in range(len(L1.args)):
        S = Unify(L1.args[i],L2.args[i],SUBSET)
        if S==False:
            return False
        if S != None:
            SUBSET[S[0].value] = S[1].value
    return SUBSET
if __name__ == "__main__":
print(Unify(Rel("Knows",[Constant("Raj"),Variable("X")]),Rel("Knows",[Variable("Y")
,Rel("Sister",[Variable("Y")])],{}))
    print()
print(Unify(Rel("Knows",[Constant("Raj"),Variable("X")]),Rel("Knows",[Variable("Y")
,Constant("Seeta")]),{}))
    print()
print(Unify(Rel("Knows",[Constant("Raj"),Variable("X")]),Rel("Knows",[Variable("X")]
,Constant("Seeta")]),{}))
. . .
OUTPUT: -
{'Raj': 'Y', "Sister['Y']": 'X'}
{'Raj': 'Y', 'Seeta': 'X'}
```

Ambigious Variable False

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