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## AI Lab. test - 2

no Pred = 0

no Arg = [None for i in range(10)]

no Arg = ''

Predicate = [None for i in range(10)]

argument = [None for i in range(10)] for i in range(10)

```
def main():
```

```
    global noPred
```

```
    Char = 'y'
```

```
    while (Char == 'y'):
```

```
        Print ("Program for inflation")
```

```
        noPred = int(input("Enter Number of Predicate:"))
```

```
        for i in range(noPred):
```

```
            Print ("Enter Predicate", (i+1), ":")
```

```
            Predicate[i] = input()
```

```
            Print ("Enter No. of Arguments for Predicate", Predicate[i], ":")
```

```
            noArg[i] = int(input())
```

```
        for j in range(noArg[i]):
```

```
            Print ("Enter argument", j+1, ":")
```

```
            argument[i][j] = input()
```

```
        Print Predicate()
```

```
        Check_arg_Pred()
```

```
        Char = input("Do you want to continue (y/n):")
```

```
def Print-Predicates():
```

```
    Print ("Predicates ")
```

```
    for i in range (noPred):
```

```
        Print (Predicates[i], " ", end=" ")
```

```
    for j in range (noArg[i]):
```

```
        Print (Argument[i][j], end=" ")
```

```
    if (j != noArg[i]-1):
```

```
        Print (" ", end=" ")
```

```
    Print (" ")
```

```
def unify():
```

```
    flag = 0
```

```
    for i in range (noRep-1):
```

```
        for j in range (noArg[i]):
```

```
            if (Argument[i][j] != Argument[i+1][j]):
```

```
                flag = 0
```

```
            if (flag == 0):
```

```
                Print ("Substitution is ")
```

```
                Print (Argument[i+1][j], " ", Argument[i][j])
```

```
                flag = 1
```

```
    if (flag == 0):
```

```
        Print ("Arguments are identical")
```

```
        Print ("No need of substitution")
```

```
        flag = 1
```



def check\_arg\_pred():  
 predflag = 0  
 argflag = 0

for i in range(noPred = 1):  
 if (Predicate[i] != Predicate[i+1]):  
 print("Predicates are not same")  
 print("unification cannot progress")  
 predflag = 1  
 break

if (predflag == 1):  
 ind = 0

key = noArg[ind]  
length = len(noArg)  
for i in range(0, key-1):  
 if i >= key:  
 continue

if ind != length-1:  
 ind += 1

key = noArg[ind]  
if (noArg[i] != noArg[i+1]):  
 print("No of Argument are not same")  
 print("unification cannot progress")  
 argflag = 1  
 break

if (argflag == 0 and predflag != 1):  
 unify()

main()