9/01/2024	Bafna Gold — Data: Paga:
8	- Lab-8
(1)	Unification: - Algorithm:
	Eg: knows (John, D) knows (John, Jane)
	Step1: 9/ term 1 or term ? is a variable an constant
	(9) term 1 or terms are identical viction NIL
	(b) Else if term is quastable
1	If terms occurs in terms
	secturn PAIL
	(c) else if term s B a variable.
	if term a peum in term!
	Hetern FAIL
	Else
	return of (term 1/term 2)}
143 861	(d) else redwin PAIL
Samuel Service	Step 2 5 If puredicate (term) \$ puredicate (term2)
	gutun PAIL
	Stip 3: nomber of argument of
61.	Justurion PAIL
	water 1117
	Stypu: set (SUBST) to NIL
	The state of the s

	steps: For ist to the number of elements is to con
	Step 5: For i 21 to the number of elements is time str (a) call unify (its terms), it time terms)  put result into 5  (b) S 2 PAIL
	put result into s
	(b) SZ PAIL
	Justum PAIL
	Parit X
	(c) 91 S = NIL
The state of	(a). Apply s to the sumainder of both
	Li and L2
Aluk s	16) SED SUBST = APPEND (S, SUBST)
	Step 6 ! Return CUBST.
	smach all misses torris. The
9	Company of the standard
100	

	Coele:-
1/8 =>	unifications
(1)	import de
	def get Attobales (experiencian)!
	expoundin 2 expounion. Split (4(4)81.7
	exprience 2 " (" - join Capacina)
	of expression = 'expression [:- 1]
	exprensa = rerspit ("?!\().(?!.\)?! ripre
	return exporenter
	and the second s
	det gethuitral predicate (experiención)
	leturn Expression. Spyit (4(4) [0]
	def got replace Attributes (exp, olds new):
	actributes = getAttributes (exp)
	for indux, val in enwrate (attributes):
	iz val zzold:
	attributes Produc Jones



	Date: Page:
	priedicate = gettuitral Priedicati (exp)
	sulum preditate + "(" +" , john (altributes) +") 4
	det apply less substitution
	for substitution in substitution:
	neu, old = gubetitution
	exp = suplace Attributes (exp, old, new)
_	steturn exp.
	The state of the s
	Control of the Contro
	def checkolous (var, exp) "
	The exp. find (var) = z -1!
	Jeturn False
	return true.
-	del get first part (expression):
-	activibules = getAthibutes (expression)
	sufum entoubutes (5)
	14 6 / 1 - 2
_	def mify (repl; exp2):
_	if expl > z exp?
_	netum []
_	if islanstout (exp1) and is (anotaut (exp2):
_	1 Schustout (exp1) and 15 the
_	if expl! = exp2:
_	sucturn false
_	N' Yasa)
_	Jefum P (exp) ]
_	Justum Cor Der 1
_	
_	

<i>t</i> ======	
	if is constant (expr):
- T	return ((eyp2, expl))
<i>-</i>	
	if get luited Russy care (expl) != get luited Russy care (exp
	purut (" Bredicates do not match 1)
	suluna Pelse.
	attributes Court (= Loss (get Attributes (exp1))
	attributes (out) 2 len (get Attributes (exp2))
	head ( = getfristParet (exp))
	heads 2 getfort (expr)
	if not initial substitution:
	stetarn False
	if attribute lows == 1:
	hetan puttalsubstitution
	tout = get Remaininglant ( eggl)
	tall = get Remarry Part (esp!) tall 2 get Remarry Part (esp 2)
	exat 2 april 10 121
	exp1 = " knows (A, X)"  exp2 = " knows (y, Y)"
	Susstituton z mity ( expl , expl)
	putul (set " subs Hutions ! ")
	privat (set " substitutions ! ")  privat ( Substitutions )

	Date; Page:
	The state of the s
	exp1 2 "12 nons (A++)"
	exp2 = knows ( y, Mother (7)) "
	substitution = chify (expl, expr)  print (" substitution: ")
	print (" Substitution:")
	point (substitution)
	the state of the second state of the second
	Output :-
0	substitution 1:
	[(x), (y), ('y', x))]
	Sul stitution
	[(x1, y'), ('morner(4)', x1)]
	The state of the s
	The state of the s
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	The second of th
	The second secon

Output:

```
exp1 = "knows(X)"
  exp2 = "knows(Richard)"
  substitutions = unify(exp1, exp2)
  print("Substitutions:")
  print(substitutions)

Substitutions:
[('X', 'Richard')]

[] exp1 = "knows(A,x)"
  exp2 = "knows(y,mother(y))"
  substitutions = unify(exp1, exp2)
  print("Substitutions:")
  print(substitutions)
```

```
Substitutions:
[('A', 'y'), ('mother(y)', 'x')]
```