

18BECE30558

TITHI PATEL

PRACTICAL-5

Program (1): Code for Prolog program to reverse a list using concatenate in Artificial Intelligence

Files	Edit	Run	Compile	Options	Setup
Editor				Dialog	
Line 1 Col 1 E:\PROLOG\PR5(11).PRO Indent				Goal: reverse([5,2,3],List)	
/*18BECE30558 TITHI PATEL*/				List=[3,2,5]	
domains				1 Solution	
x = integer				Goal: reverse([76,9,0],List)	
l = integer*				List=[0,9,76]	
predicates				1 Solution	
reverse(l,l)				Goal: _	
concatenate(l,l,l)					
clauses					
concatenate([],List,List).					
concatenate([X:List1],List2,[X:List3]):-					
concatenate(List1,List2,List3).					
reverse([],[]).					
reverse([Head:Tail],List):-					
reverse(Tail,List1),					
Message				Trace	
concatenate					
Compiling E:\PROLOG\PR5(11).PRO					
reverse					
concatenate					
F2-Save F3-Load F5-Zoom F6-Next F8-Previous goal Shift-F10-Resize F10-End					

Program(2):Code for Prolog program to check whether a given list is palindrome or not in Artificial Intelligence.

domains
list=symbol*

predicates
palin(list)
findrev(list,list,list)
compare(list,list)

clauses

```

palin(List1):
findrev(List1,[],List2),
compare(List1,List2).
findrev([],List1,List1).
findrev([X|Tail],List1,List2):
findrev(Tail,[X|List1],List2).
compare([],[]):
write("\nList is Palindrome").
compare([X|List1],[X|List2]):
compare(List1,List2).
compare([X|List1],[Y|List2]):
write("\nList is not Palindrome").

```

OUTPUT

Files		Edit	Run	Compile	Options	Setup
<div> <div>Editor</div> <div> <div>Line 1 Col 3 E:\PROLOG\PR5.PRO Indent In</div> <pre> /*18BECE30558 TITHI PATEL*/ domains list=symbol* predicates palin(list) findrev(list,list,list) compare(list,list) clauses palin(List1):- findrev(List1,[],List2), compare(List1,List2). findrev([],List1,List1). findrev([X Tail],List1,List2):- findrev(Tail,[X List1],List2). </pre> </div> </div>						<div>Dialog</div> <pre> Goal: palin([m,i,m]) List is PalindromeYes Goal: </pre>
<div>Message</div> <pre> palin findrev compare Compiling E:\PROLOG\PR5.PRO </pre>			<div>Trace</div>			
<div>F1-Help F2-Save F3-Load F5-Zoom F6-Next F7-Xcopy F8-Xedit F9-Compile F10-Menu</div>						