

18BECE30558

TITHI PATEL

PRACTICAL-3

Program (1): Program to implement arithmetic operators.

The screenshot shows a Prolog editor window with the following components:

- Editor Window:** Contains the Prolog code for arithmetic operations.

```
/*18BECE30558 TITHI PATEL*/
domains
    x,y=integer
predicates
    add(x,y)
    sub(x,y)
    mul(x,y)
    div(x,y)
clauses
    add(A,B):-
        Z=A+B, write(Z), nl.
    sub(A,B):-
        Z=A-B, write(Z), nl.
    mul(A,B):-
```
- Options Dialog:** Shows the execution of goals and their results.

```
Goal: add(3,5)
8
Yes
Goal: sub(7,5)
2
Yes
Goal: mul(5,3)
15
Yes
Goal: div(20,4)
5
Yes
Goal:
```
- Message Window:** Displays the output of the operations.

```
add
sub
mul
div
```
- Trace Window:** Currently empty.
- Footer:** A status bar with function key shortcuts: F1-Help, F2-Save, F3-Load, F5-Zoom, F6-Next, F7-Xcopy, F8-Xedit, F9-Compile, F10-Menu.

Program (2): Program to print the values between given range.

Files	Edit	Run	Compile	Options	Setup
Editor Line 1 Col 27 C:\RANGE.PRO Indent Insert <pre> /*18BECE30558 TITHI PATEL */ predicates range(integer, integer, integer) clauses range(Low, Low, High). range(Out, Low, High):- NewLow=Low+1, NewLow<=High, range(Out, NewLow, High). </pre>				Dialog X=2 X=3 X=4 X=5 5 Solutions Goal: range(X,1,7) X=1 X=2 X=3 X=4 X=5 X=6 X=7 7 Solutions Goal:	
Message Compiling C:\RANGE.PRO Compiling C:\RANGE.PRO Compiling C:\RANGE.PRO range				Trace	
F1-Help F2-Save F3-Load F5-Zoom F6-Next F7-Xcopy F8-Xedit F9-Compile F10-Menu					

Program (3) : Program to implement Tower of hanoi.

Files	Edit	Run	Compile	Options	Setup
Editor Line 1 Col 28 C:\PR3(3).PRO Indent Insert <pre> /*18BECE30558 TITHI PATEL */ DOMAINS loc=right;middle;left PREDICATES hanoi(integer) move(integer, loc, loc, loc) inform(loc, loc) CLAUSES hanoi(N):- move(N, left, middle, right). move(1, A, _, C):- inform(A, C), !. move(N, A, B, C):- N1=N-1, move(N1, A, C, B), </pre>				Dialog Move a disk from lefttor ight Move a disk from lefttom iddle Move a disk from rightto middle Move a disk from lefttor ight Move a disk from middlet oleft Move a disk from middlet oright Move a disk from lefttor ightYes Goal:	
Message Compilation successful hanoi move inform				Trace	
F1-Help F2-Save F3-Load F5-Zoom F6-Next F7-Xcopy F8-Xedit F9-Compile F10-Menu					

Program (4): Program to find grades.

Files		Edit	Run	Compile	Options	Setup
Editor						Dialog
Line 1	Col 20	C:\PR3_2.PRO				Indent Insert
/*18BECE30558 TITHI PATEL */						Goal: grade(4)
domains						fail
MARKS=integer						Yes
predicates						Goal: grade(50)
grade(MARKS)						Good
clauses						Yes
grade(MARKS):-						Goal: grade(40)
MARKS < 70, MARKS >= 60, write("Excellent"),						Good
grade(MARKS):-						Yes
MARKS < 60, MARKS >= 40, write("Good"),nl.						Goal: grade(90)
grade(MARKS):-						No
MARKS < 40, write("fail"),nl.						Goal: grade(50)
						Good
						Yes
						Goal:
Message						Trace
inform						
Load C:\PR3_2.PRO						
Compiling C:\PR3_2.PRO						
grade						
F1-Help F2-Save F3-Load F5-Zoom F6-Next F7-Xcopy F8-Xedit F9-Compile F10-Menu						