

ACTIVIDAD 1

The screenshot shows the Visual Studio Code interface. On the left, the Explorer pane shows a project named 'CLASE3' containing a file 'actividad.pl'. The main editor displays the contents of 'actividad.pl' with the following code:

```
1 par(X) :-  
2   X mod 2 == 0.  
3  
4  
5
```

Below the editor, the TERMINAL pane shows the output of running the program. It starts with the SWI-Prolog welcome message and then shows the results of four queries:

```
PS C:\Users\juans\Desktop\Gustavo UEES\Clases\Clase3> swipl  
Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.7)  
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.  
Please run ?- license. for legal details.  
  
For online help and background, visit https://www.swi-prolog.org  
For built-in help, use ?- help(Topic). or ?- apropos(Word).  
  
1 ?- [actividad].  
true.  
  
2 ?- par(8).  
true.  
  
3 ?- par(13).  
false.  
  
4 ?-
```

ACTIVIDAD 2

The screenshot shows the Visual Studio Code interface. On the left, the Explorer pane shows a project named 'CLASE3' containing two files: 'actividad.pl' and 'actividad2.pl'. The main editor displays the contents of 'actividad2.pl' with the following code:

```
1 tiene(juan, bicicleta).  
2 tiene(juan, coche).  
3 tiene(ana, coche).  
4 tiene(pedro, patineta).  
5  
6  
7
```

Below the editor, the TERMINAL pane shows the output of running the program. It starts with the SWI-Prolog welcome message and then shows the results of five queries:

```
PS C:\Users\juans\Desktop\Gustavo UEES\Clases\Clase3> swipl  
Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.7)  
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Please run ?- license. for legal details.  
  
For online help and background, visit https://www.swi-prolog.org  
For built-in help, use ?- help(Topic). or ?- apropos(Word).  
  
1 ?- [actividad2].  
true.  
  
2 ?- tiene(juan, X).  
X = bicicleta .  
  
3 ?- tiene(juan, _).  
true .  
  
4 ?- tiene(juan, X), tiene(ana, X).  
X = coche.  
  
5 ?- tiene(juan, _), tiene(pedro, _).  
true
```

ACTIVIDAD 3

The screenshot shows the SWI-Prolog IDE with the Explorer on the left and the Terminal on the right. The Explorer has two sections: 'OPEN EDITORS' and 'CLASE3'. In 'OPEN EDITORS', 'actividad3.pl' is selected. In 'CLASE3', 'actividad3.pl' is also selected. The main editor window shows the code for 'actividad3.pl':

```
1 cuadrado(X,R):-  
2   R is X*X.  
3
```

The Terminal window shows the following output:

```
PS C:\Users\juans\Desktop\Gustavo UEES\Clases\Clase3> swipl  
Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.7)  
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Please run ?- license. for legal details.  
  
For online help and background, visit https://www.swi-prolog.org  
For built-in help, use ?- help(Topic). or ?- apropos(Word).  
  
1 ?- [actividad3].  
true.  
  
2 ?- cuadrado(2,R).  
R = 4.  
  
3 ?- cuadrado(6,R).  
R = 36.  
  
4 ?- cuadrado(1.77,R).  
R = 3.1329000000000002.
```

ACTIVIDAD 4

The screenshot shows the SWI-Prolog IDE with the Explorer on the left and the Terminal on the right. The Explorer has two sections: 'OPEN EDITORS' and 'CLASE3'. In 'OPEN EDITORS', 'actividad4.pl' is selected. In 'CLASE3', 'actividad4.pl' is also selected. The main editor window shows the code for 'actividad4.pl':

```
1 media(A,B,M) :-  
2   M is (A+B)/2.  
3  
4
```

The Terminal window shows the following output:

```
PS C:\Users\juans\Desktop\Gustavo UEES\Clases\Clase3> swipl  
Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.7)  
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.  
Please run ?- license. for legal details.  
  
For online help and background, visit https://www.swi-prolog.org  
For built-in help, use ?- help(Topic). or ?- apropos(Word).  
  
1 ?- [actividad4].  
true.  
  
2 ?- media(5,7,M).  
M = 6.  
  
3 ?- media(1,10,M).  
M = 5.5.  
  
4 ?- █
```

ACTIVIDAD 5

EXPLORER

OPEN EDITORS

actividad2.pl

actividad3.pl

actividad4.pl

× actividad5.pl

actividad.pl

CLASE3

actividad.pl

actividad2.pl

actividad3.pl

actividad4.pl

actividad5.pl

actividad2.pl

actividad3.pl

actividad4.pl

actividad5.pl

actividad5.pl

```

1 factorial(0,1).
2 factorial(N,R):-
3     N1 is N - 1,
4     factorial(N1,R1),
5     R is N * R1.
6

```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

PS C:\Users\juans\Desktop\Gustavo UEES\Clases\Clase3> swipl

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For built-in help, use ?- help(Topic). or ?- apropos(Word).

1 ?- [actividad5].

true.

2 ?- factorial(6,R).

R = 720

ACTIVIDAD 6

EXPLORER

OPEN EDITORS

actividad5.pl Clase3

× actividad6.pl U

LENGUAJES-DE-PROGRAMACION-CLASES-...

Clase1

Clase2

Clase3

actividad.pl

actividad2.pl

actividad3.pl

actividad4.pl

actividad5.pl

actividad6.pl U

actividad5.pl

actividad6.pl U

actividad6.pl

```

1 fibonacci(0,1).
2 fibonacci(1,1).
3 fibonacci(N,R):-
4     N1 is N-1,
5     N2 is N-2,
6     fibonacci(N1,R1),
7     fibonacci(N2,R2),
8     R is R1 + R2.
9
10

```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

PS C:\Users\gusta\OneDrive\Documents\UEES\Lenguajes-de-programacion-CLASES-UEES> swipl

Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.7)

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Please run ?- license. for legal details.

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For built-in help, use ?- help(Topic). or ?- apropos(Word).

1 ?- [actividad6].

true.

2 ?- fibonacci(6,R).

R = 13 .

3 ?- fibonacci(4,R).

R = 5 .

4 ?- fibonacci(2,R).

R = 2

ACTIVIDAD 7

EXPLORER

OPEN EDITORS

actividad7.pl Clase3

U

LENGUAJES-DE-PROGRAMACION-CLASES-...

Clase1

Clase2

Clase3

actividad.pl

actividad2.pl

actividad3.pl

actividad4.pl

actividad5.pl

actividad6.pl

U

actividad7.pl

U

actividad7.pl U

Clase3 > actividad7.pl

1 mcd(X,0,X).

2 mcd(X,Y,M):-

3 X1 is X mod Y,

4 mcd(Y,X1,M).

5

6

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

PS C:\Users\gusta\OneDrive\Documents\UEES\Lenguajes-de-programacion-CLASES-UEES> cd Clase3

PS C:\Users\gusta\OneDrive\Documents\UEES\Lenguajes-de-programacion-CLASES-UEES\Clase3> swipl

Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.7)

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Please run ?- license. for legal details.

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For built-in help, use ?- help(Topic). or ?- apropos(Word).

1 ?- [actividad7].

true.

2 ?- mcd(36,48,R).

R = 12 .

3 ?- mcd(48,36,R).

R = 12 .

ACTIVIDAD 8

EXPLORER

OPEN EDITORS

actividad7.pl Clase3

U

actividad8.pl Clase3

U

LENGUAJES-DE-PROGRAMACION-CLASES-...

Clase1

Clase2

Clase3

actividad.pl

actividad2.pl

actividad3.pl

actividad4.pl

actividad5.pl

actividad6.pl

U

actividad7.pl

U

actividad8.pl

U

actividad7.pl U

actividad8.pl U

Clase3 > actividad8.pl

1 population('Ecuador',18000000).

2 population('Colombia',52000000).

3 area('Ecuador',280000).

4 area('Colombia',1142000).

5

6 densidad(Pais,D):-

7 population(Pais,P),

8 area(Pais,A),

9 D is P / A.

10

11

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

PS C:\Users\gusta\OneDrive\Documents\UEES\Lenguajes-de-programacion-CLASES-UEES> cd Clase3

PS C:\Users\gusta\OneDrive\Documents\UEES\Lenguajes-de-programacion-CLASES-UEES\Clase3> swipl

Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.7)

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Please run ?- license. for legal details.

For online help and background, visit <https://www.swi-prolog.org>

For built-in help, use ?- help(Topic). or ?- apropos(Word).

1 ?- [actividad8].

true.

2 ?- densidad('Colombia',D).

D = 45.53415061295972.

3 ?- densidad('Ecuador',D).

D = 64.28571428571429.