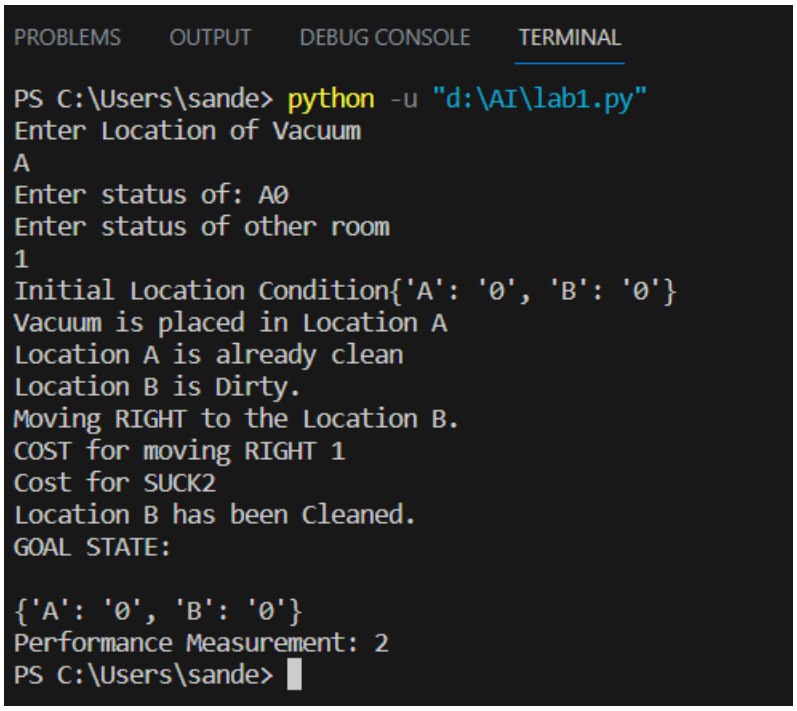
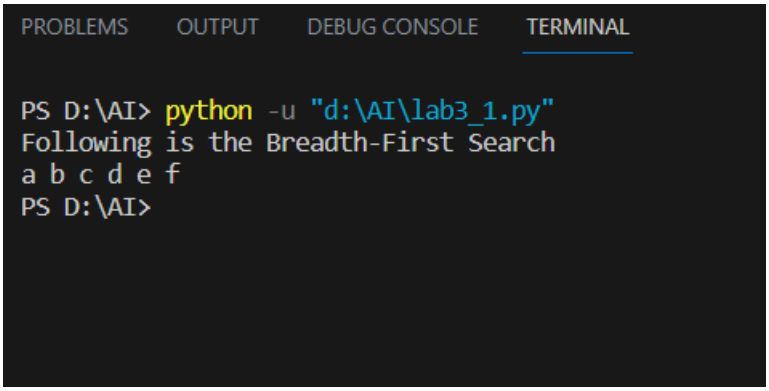
1. **Output:**

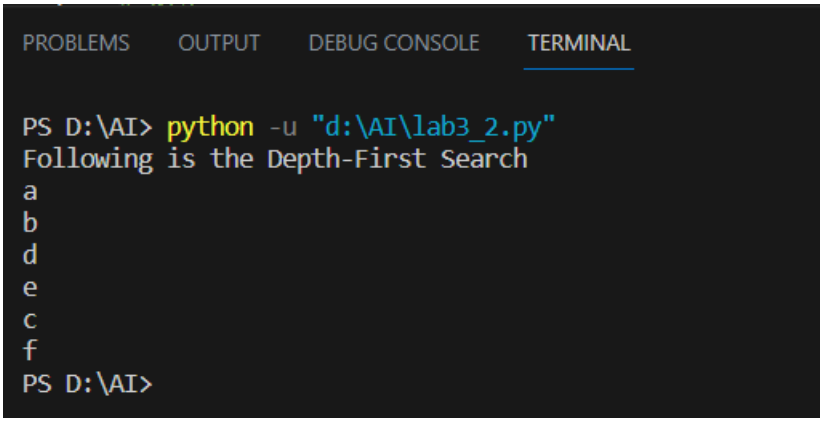

PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PS C:\Users\sande> python -u "d:\AI\lab1.py"
Enter Location of Vacuum
A
Enter status of: A0
Enter status of other room
1
Initial Location Condition{'A': '0', 'B': '0'}
Vacuum is placed in Location A
Location A is already clean
Location B is Dirty.
Moving RIGHT to the Location B.
COST for moving RIGHT 1
Cost for SUCK2
Location B has been Cleaned.
GOAL STATE:
{'A': '0', 'B': '0'}
Performance Measurement: 2
PS C:\Users\sande>

2. Output:

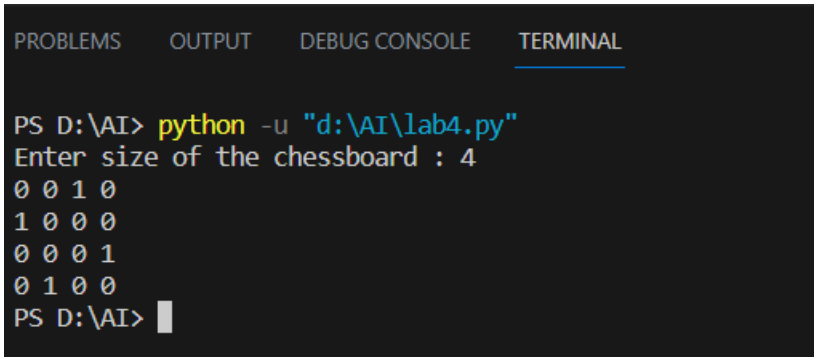
```
PS D:\AI> python -u "d:\AI\lab2.py"
Guess the characters:

_________

guess a character:n
______n__

guess a character:k
k_____n__

guess a character:a
ka___an__

guess a character:t
kat__an__

guess a character:h
kath_an__

guess a character:m
kathman__

guess a character:a
kathman__

guess a character:d
kathmand_

guess a character:u
kathmandu

You Win.
The word is:  kathmandu.
PS D:\AI>
```

3. Output:

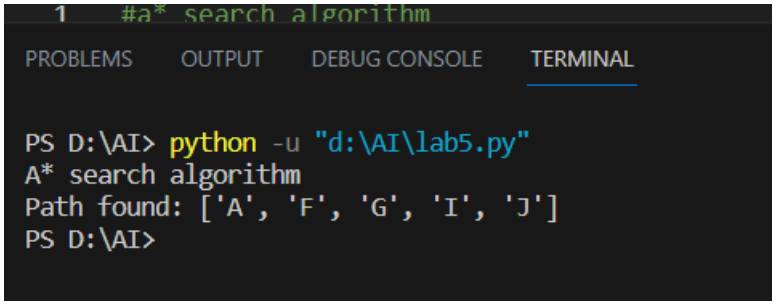

PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PS D:\AI> python -u "d:\AI\lab3_1.py"
Following is the Breadth-First Search
a b c d e f
PS D:\AI>


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PS D:\AI> python -u "d:\AI\lab3_2.py"
Following is the Depth-First Search
a
b
d
e
c
f
PS D:\AI>

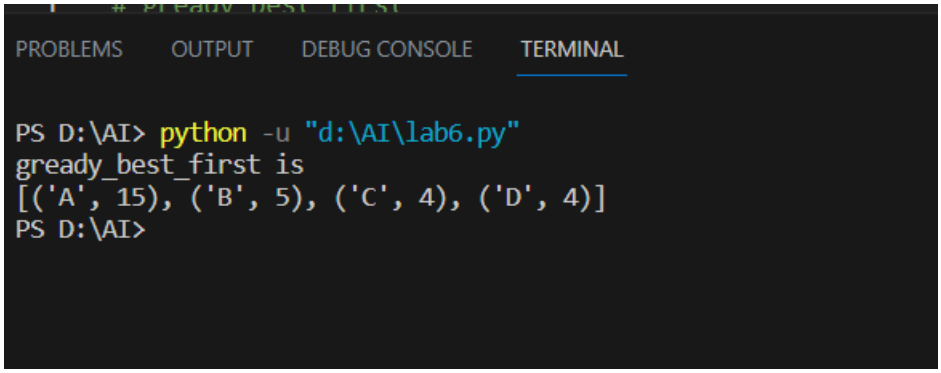
4. Output:


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PS D:\AI> python -u "d:\AI\lab4.py"
Enter size of the chessboard : 4
0 0 1 0
1 0 0 0
0 0 0 1
0 1 0 0
PS D:\AI>

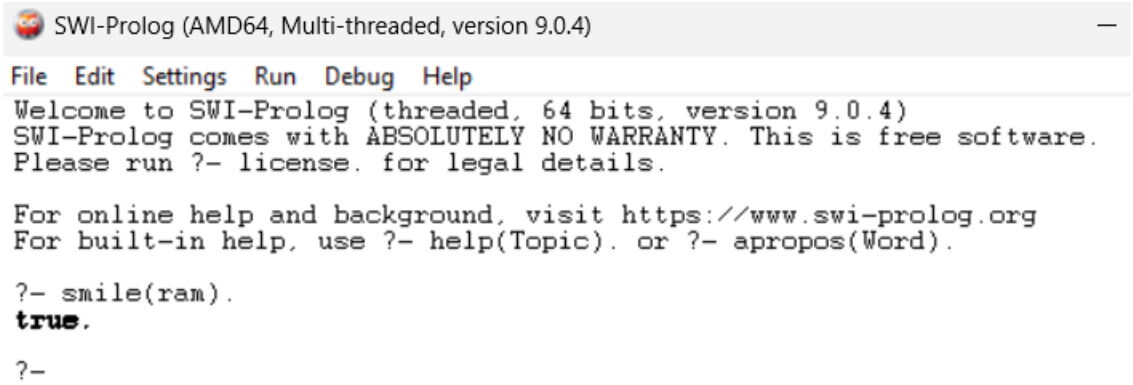
5. Output:

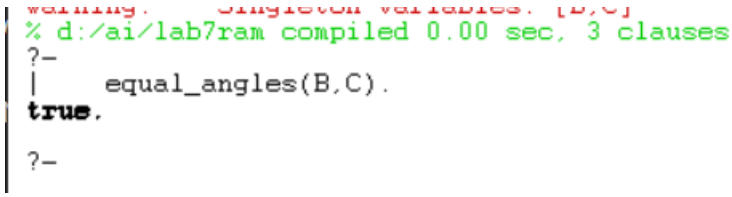

1 #a* search algorithm
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PS D:\AI> python -u "d:\AI\lab5.py"
A* search algorithm
Path found: ['A', 'F', 'G', 'I', 'J']
PS D:\AI>

6. Output:


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PS D:\AI> python -u "d:\AI\lab6.py"
gready_best_first is
[('A', 15), ('B', 5), ('C', 4), ('D', 4)]
PS D:\AI>

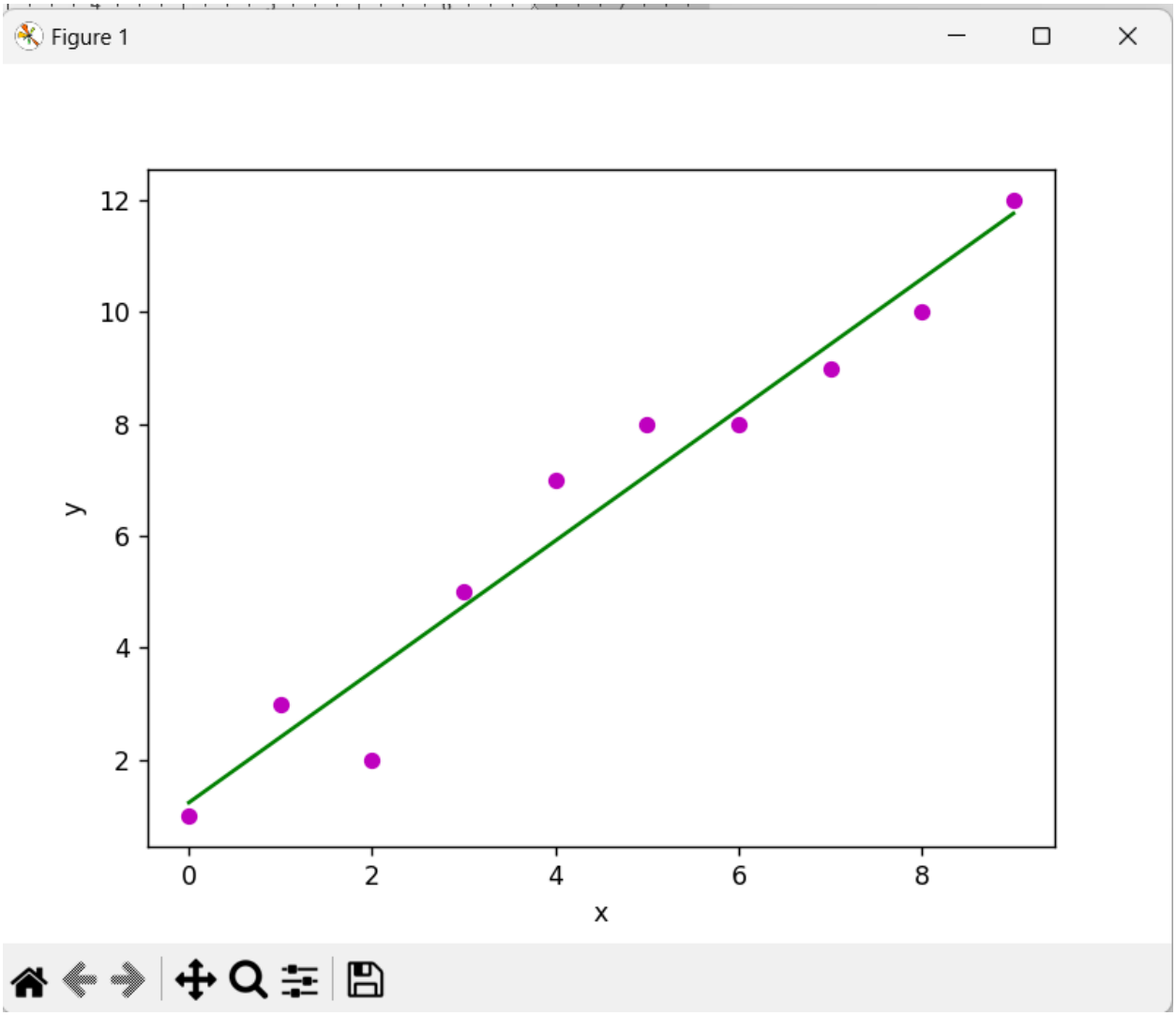
7. Output:


SWI-Prolog (AMD64, Multi-threaded, version 9.0.4)
File Edit Settings Run Debug Help
Welcome to SWI-Prolog (threaded, 64 bits, version 9.0.4)
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).
?- smile(ram).
true.
?-

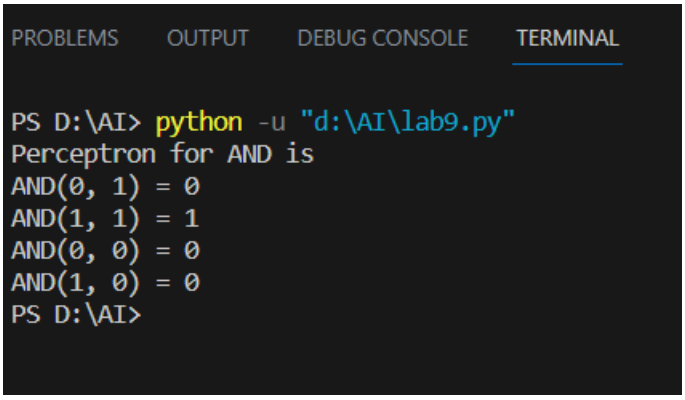

% d:/ai/lab7ram compiled 0.00 sec, 3 clauses
?-
| equal_angles(B,C).
true.
?-

8. Output:

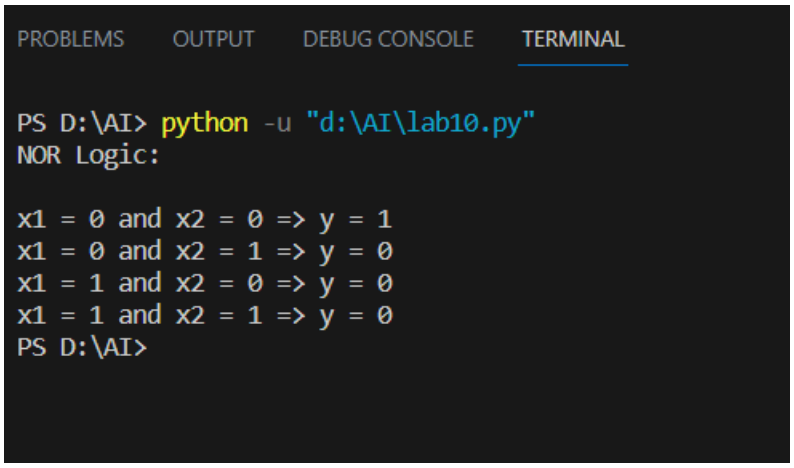
```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS D:\AI> python -u "d:\AI\lab8.py"
Estimated coefficients:
b_0 = 1.2363636363636363
b_1 = 1.1696969696969697
```



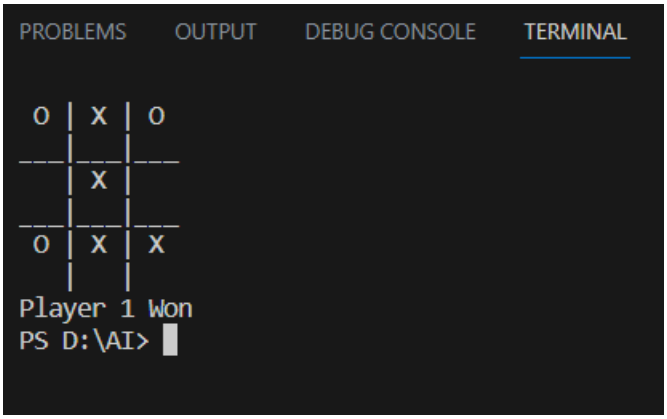
9. Output:


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PS D:\AI> python -u "d:\AI\lab9.py"
Perceptron for AND is
AND(0, 1) = 0
AND(1, 1) = 1
AND(0, 0) = 0
AND(1, 0) = 0
PS D:\AI>

10. Output:


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PS D:\AI> python -u "d:\AI\lab10.py"
NOR Logic:
x1 = 0 and x2 = 0 => y = 1
x1 = 0 and x2 = 1 => y = 0
x1 = 1 and x2 = 0 => y = 0
x1 = 1 and x2 = 1 => y = 0
PS D:\AI>

11. Output:


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
O | X | O
___|___|___
| X |
___|___|___
O | X | X
| | |
Player 1 Won
PS D:\AI>