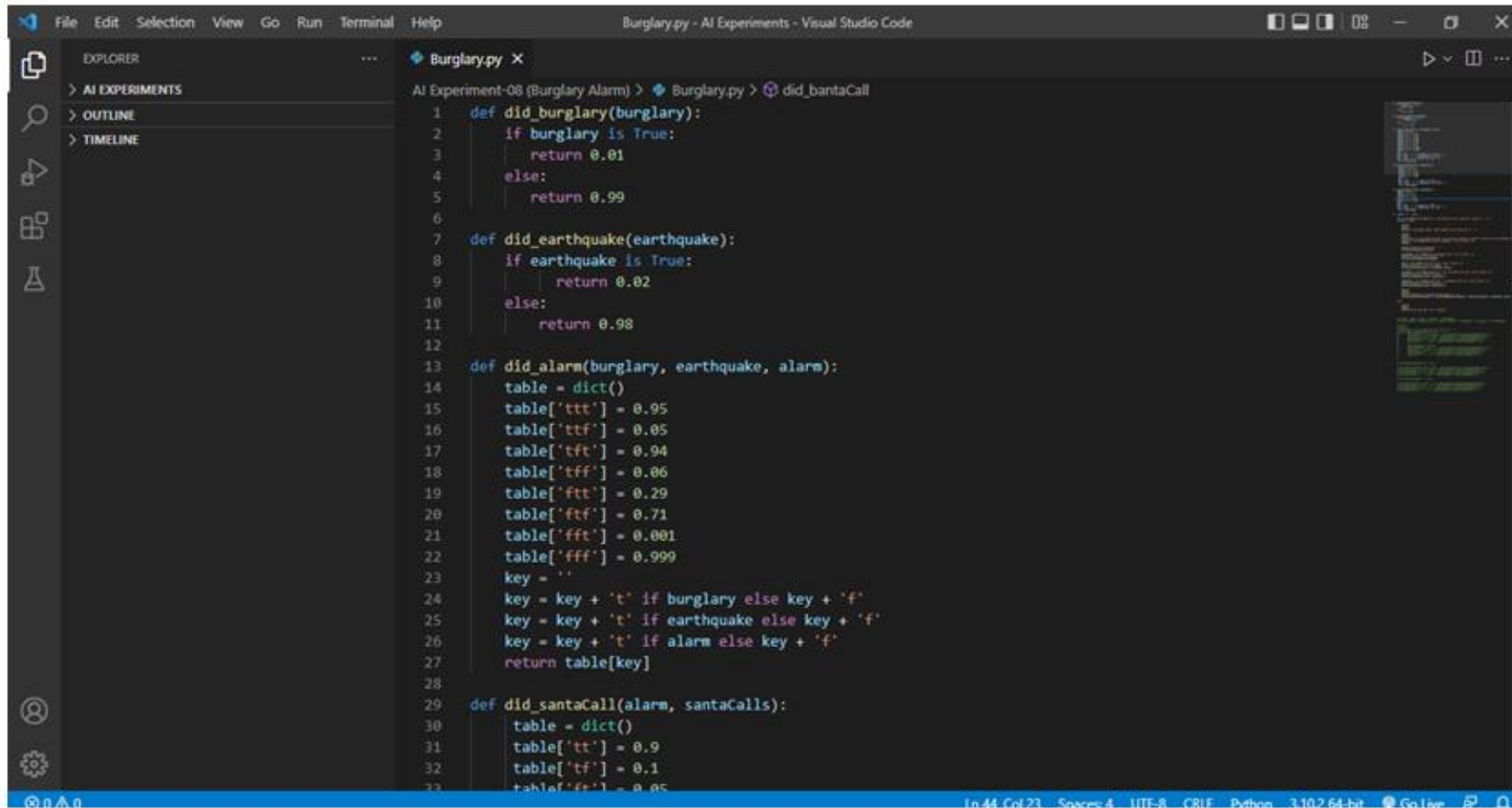


Implementation:



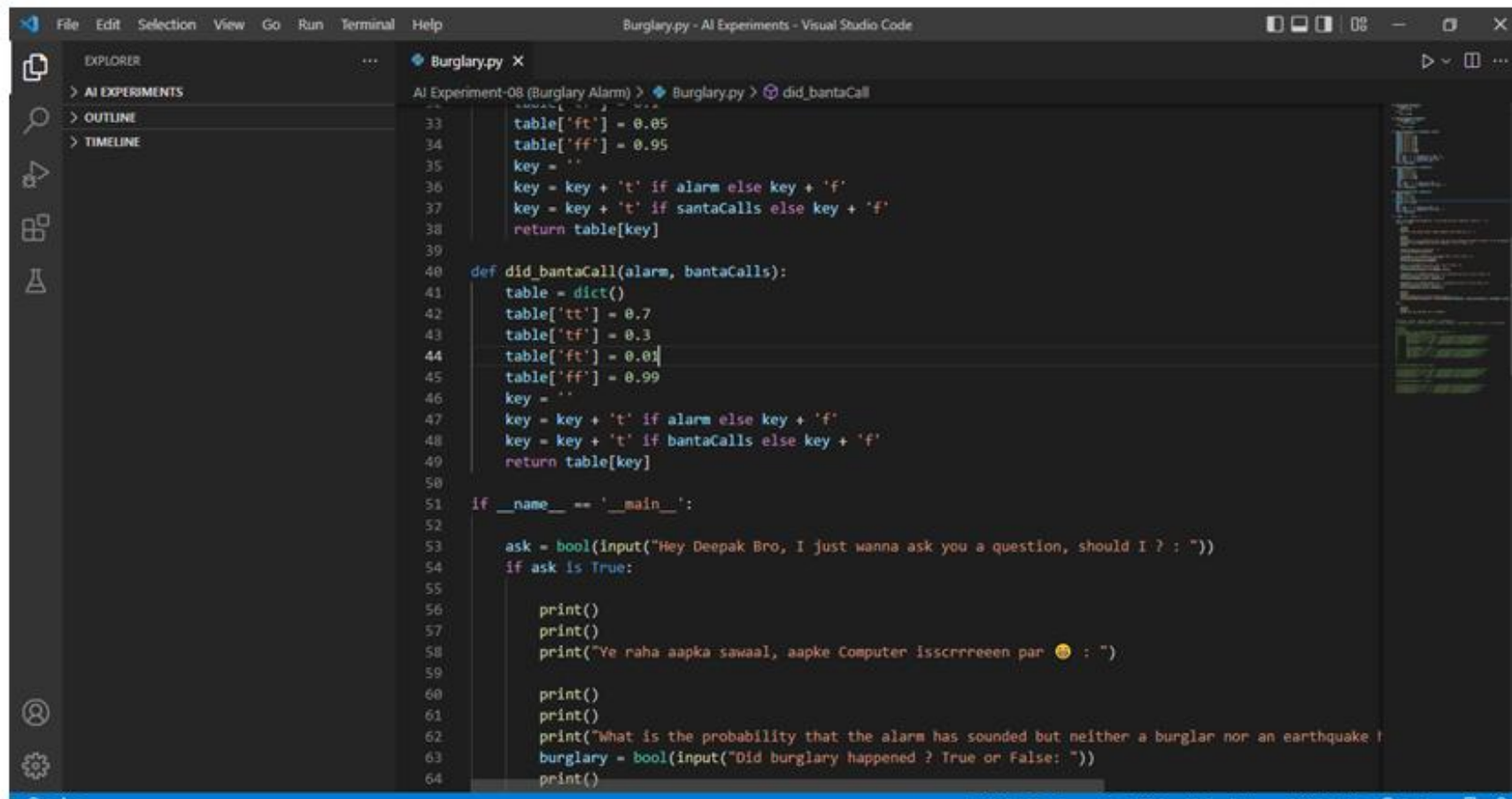
```
File Edit Selection View Go Run Terminal Help
Burglary.py - AI Experiments - Visual Studio Code

EXPLORER
> AI EXPERIMENTS
> OUTLINE
> TIMELINE

Burglary.py X
AI Experiment-08 (Burglary Alarm) > Burglary.py > did_bantaCall

1 def did_burglary(burglary):
2     if burglary is True:
3         return 0.01
4     else:
5         return 0.99
6
7 def did_earthquake(earthquake):
8     if earthquake is True:
9         return 0.02
10    else:
11        return 0.98
12
13 def did_alarm(burglary, earthquake, alarm):
14     table = dict()
15     table['ttt'] = 0.95
16     table['ttf'] = 0.05
17     table['tft'] = 0.94
18     table['tff'] = 0.06
19     table['ftt'] = 0.29
20     table['ftf'] = 0.71
21     table['fft'] = 0.001
22     table['fff'] = 0.999
23     key = ''
24     key = key + 't' if burglary else key + 'f'
25     key = key + 't' if earthquake else key + 'f'
26     key = key + 't' if alarm else key + 'f'
27     return table[key]
28
29 def did_santaCall(alarm, santaCalls):
30     table = dict()
31     table['tt'] = 0.9
32     table['tf'] = 0.1
33     table['ft'] = 0.05
```

(Implementation Part – 01)



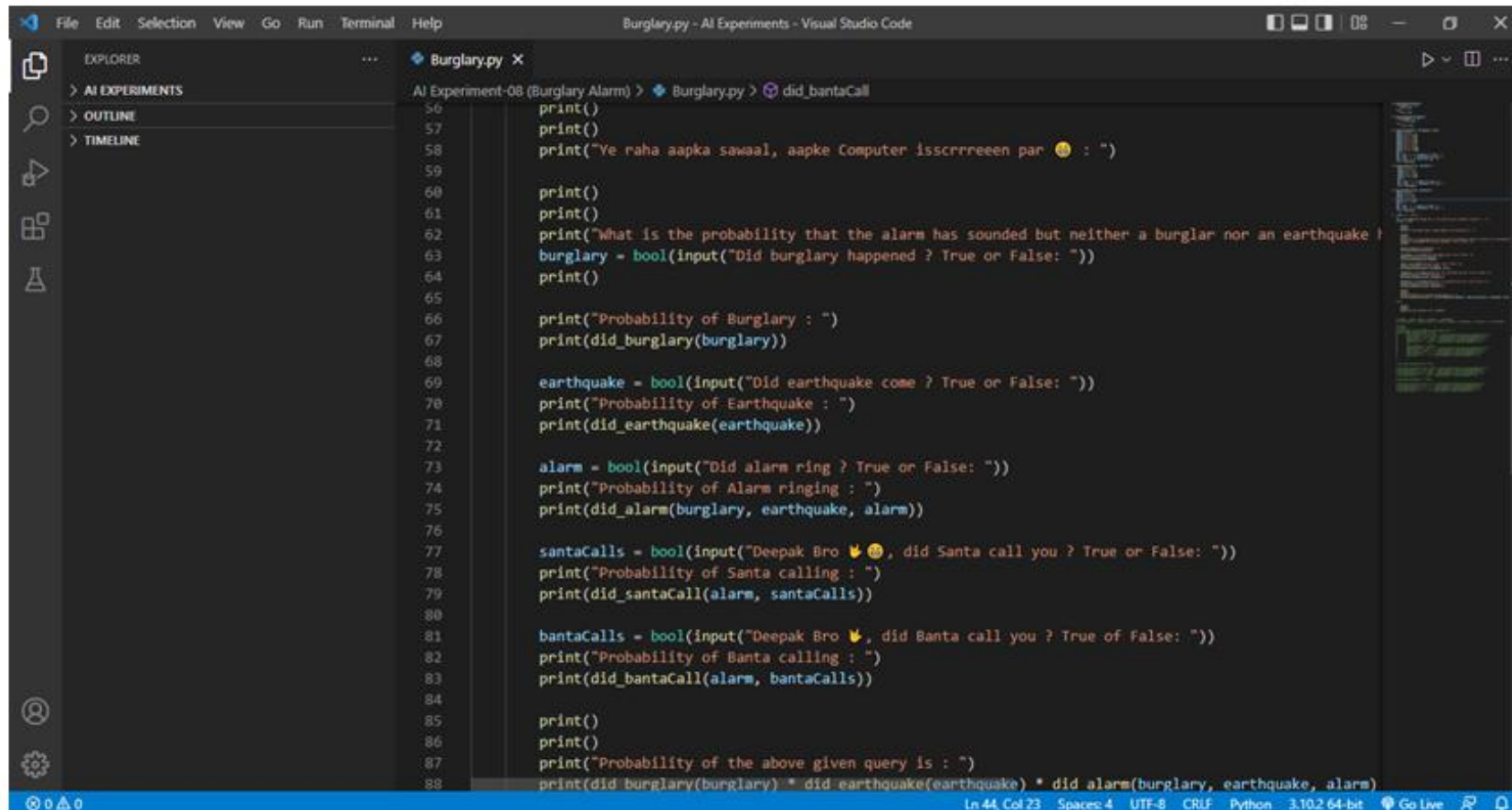
```
File Edit Selection View Go Run Terminal Help
Burglary.py - AI Experiments - Visual Studio Code

EXPLORER
> AI EXPERIMENTS
> OUTLINE
> TIMELINE

Burglary.py X
AI Experiment-08 (Burglary Alarm) > Burglary.py > did_bantaCall

33 table['ft'] = 0.05
34 table['ff'] = 0.95
35 key = ''
36 key = key + 't' if alarm else key + 'f'
37 key = key + 't' if santaCalls else key + 'f'
38 return table[key]
39
40 def did_bantaCall(alarm, bantaCalls):
41     table = dict()
42     table['tt'] = 0.7
43     table['tf'] = 0.3
44     table['ft'] = 0.01
45     table['ff'] = 0.99
46     key = ''
47     key = key + 't' if alarm else key + 'f'
48     key = key + 't' if bantaCalls else key + 'f'
49     return table[key]
50
51 if __name__ == '__main__':
52
53     ask = bool(input("Hey Deepak Bro, I just wanna ask you a question, should I ? : "))
54     if ask is True:
55
56         print()
57         print()
58         print("Ye raha aapka sawaal, aapke Computer Isscrrreeen par 🤖 : ")
59
60         print()
61         print()
62         print("What is the probability that the alarm has sounded but neither a burglar nor an earthquake ?")
63         burglary = bool(input("Did burglary happened ? True or False: "))
64         print()
```

(Implementation Part – 02)



```
File Edit Selection View Go Run Terminal Help
Burglary.py - AI Experiments - Visual Studio Code

EXPLORER
> AI EXPERIMENTS
> OUTLINE
> TIMELINE

Burglary.py X
AI Experiment-08 (Burglary Alarm) > Burglary.py > did_bantaCall
56 print()
57 print()
58 print("Ye raha aapka sawaal, aapke Computer isscrreeen par 😊 : ")
59
60 print()
61 print()
62 print("What is the probability that the alarm has sounded but neither a burglar nor an earthquake ?")
63 burglary = bool(input("Did burglary happened ? True or False: "))
64 print()
65
66 print("Probability of Burglary : ")
67 print(did_burglary(burglary))
68
69 earthquake = bool(input("Did earthquake come ? True or False: "))
70 print("Probability of Earthquake : ")
71 print(did_earthquake(earthquake))
72
73 alarm = bool(input("Did alarm ring ? True or False: "))
74 print("Probability of Alarm ringing : ")
75 print(did_alarm(burglary, earthquake, alarm))
76
77 santaCalls = bool(input("Deepak Bro 🙌🏻😊, did Santa call you ? True or False: "))
78 print("Probability of Santa calling : ")
79 print(did_santaCall(alarm, santaCalls))
80
81 bantaCalls = bool(input("Deepak Bro 🙌🏻😊, did Banta call you ? True or False: "))
82 print("Probability of Banta calling : ")
83 print(did_bantaCall(alarm, bantaCalls))
84
85 print()
86 print()
87 print("Probability of the above given query is : ")
88 print(did_burglary(burglary) * did_earthquake(earthquake) * did_alarm(burglary, earthquake, alarm))

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```

(Implementation Part – 03)

```
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Burglary.py - AI Experiments - Visual Studio Code

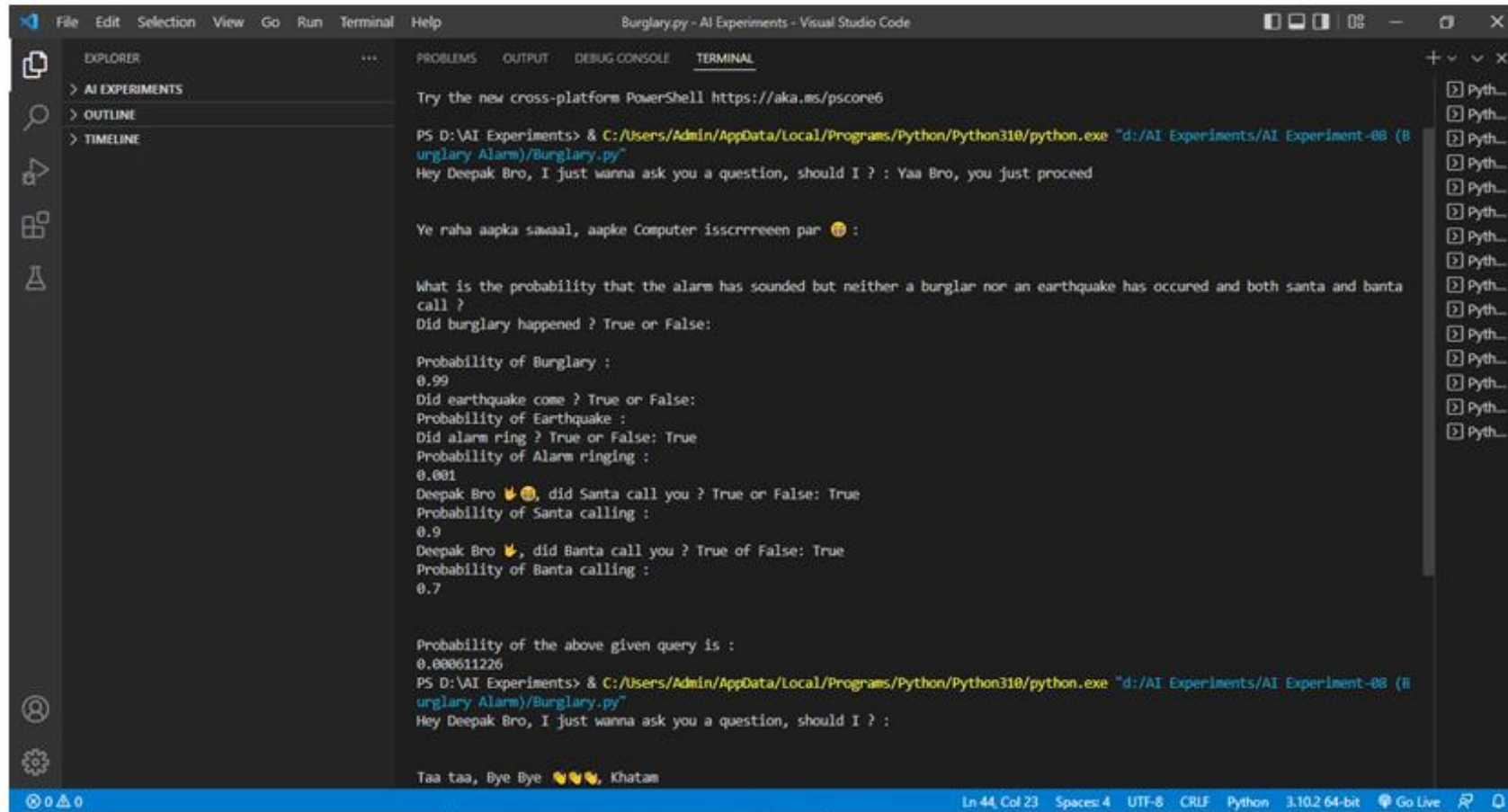
EXPLORER
> AI EXPERIMENTS
> OUTLINE
> TIMELINE

Burglary.py X
AI Experiment-08 (Burglary Alarm) > Burglary.py > did_bantaCall

64 print()
65
66 print("Probability of Burglary : ")
67 print(did_burglary(burglary))
68
69 earthquake = bool(input("Did earthquake come ? True or False: "))
70 print("Probability of Earthquake : ")
71 print(did_earthquake(earthquake))
72
73 alarm = bool(input("Did alarm ring ? True or False: "))
74 print("Probability of Alarm ringing : ")
75 print(did_alarm(burglary, earthquake, alarm))
76
77 santaCalls = bool(input("Deepak Bro 🙋🏻, did Santa call you ? True or False: "))
78 print("Probability of Santa calling : ")
79 print(did_santaCall(alarm, santaCalls))
80
81 bantaCalls = bool(input("Deepak Bro 🙋🏻, did Banta call you ? True or False: "))
82 print("Probability of Banta calling : ")
83 print(did_bantaCall(alarm, bantaCalls))
84
85 print()
86 print()
87 print("Probability of the above given query is : ")
88 print(did_burglary(burglary) * did_earthquake(earthquake) * did_alarm(burglary, earthquake, alarm))
89
90 else :
91
92 print()
93 print()
94 print("Taa taa, Bye Bye 🙋🏻🙋🏻🙋🏻, Khatam")
95
96
```

(Implementation Part – 04)

Output:



```
File Edit Selection View Go Run Terminal Help
Burglary.py - AI Experiments - Visual Studio Code

EXPLORER
> AI EXPERIMENTS
> OUTLINE
> TIMELINE

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Try the new cross-platform PowerShell https://aka.ms/powershell

PS D:\AI Experiments> & C:/Users/Admin/AppData/Local/Programs/Python/Python310/python.exe "d:/AI Experiments/AI Experiment-08 (Burglary Alarm)/Burglary.py"
Hey Deepak Bro, I just wanna ask you a question, should I ? : Yaa Bro, you just proceed

Ye raha aapka sawaal, aapke Computer isscrreen par 🤖 :

What is the probability that the alarm has sounded but neither a burglar nor an earthquake has occurred and both santa and banta call ?
Did burglary happened ? True or False:

Probability of Burglary :
0.99
Did earthquake come ? True or False:
Probability of Earthquake :
Did alarm ring ? True or False: True
Probability of Alarm ringing :
0.001
Deepak Bro 🙋🏻, did Santa call you ? True or False: True
Probability of Santa calling :
0.9
Deepak Bro 🙋🏻, did Banta call you ? True or False: True
Probability of Banta calling :
0.7

Probability of the above given query is :
0.000611226
PS D:\AI Experiments> & C:/Users/Admin/AppData/Local/Programs/Python/Python310/python.exe "d:/AI Experiments/AI Experiment-08 (Burglary Alarm)/Burglary.py"
Hey Deepak Bro, I just wanna ask you a question, should I ? :

Taa taa, Bye Bye 🙋🏻🙋🏻🙋🏻, Khatam

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```