

Problem 1.

Create a countdown timer, where the user is prompted to enter time in seconds and will countdown to zero (set timer delay to 1) using `timer.sleep(time_lapse)`. The program should prompt the user to test the timer if the answer is 'y' it will ask the user to enter time in second. If the answer is 'n' it will terminate the timer. Your response to y or n should be case insensitive.

Sample Output:

Start the timer[y|n]:? y

```
Enter the time in seconds: 10
00:00:10
00:00:09
00:00:08
00:00:07
00:00:06
00:00:05
00:00:04
00:00:03
00:00:02
00:00:01
TIME'S UP!
```

Try again?[y|n]: y

```
Enter the time in seconds: 10
00:00:10
00:00:09
00:00:08
00:00:07
00:00:06
00:00:05
00:00:04
00:00:03
00:00:02
00:00:01
TIME'S UP!
```

Try again?[y|n]: n

Bye!!! Thanks for using the program

CODE:

```
import time

while True:
    start = input("Start the timer[y/n]: ").strip().lower()
    if start != "y":
        print("Bye!!! Thanks for using the program")
        break

    my_time = int(input("Enter the time in seconds: "))

    for t in range(my_time, 0, -1):
        hours = t // 3600
        minutes = (t % 3600) // 60
        seconds = t % 60
        print(f"{hours:02}:{minutes:02}:{seconds:02}")
        time.sleep(1)

    print("TIME'S UP!")

    again = input("\nTry again?[y/n]: ").strip().lower()
    if again != "y":
        print("Bye!!! Thanks for using the program")
        break
```

Create an $n \times n$ Multiplication table using **Nested FOR Loop**. The user must enter the number of rows and columns that will be displayed in the Table.

Sample Output 1

```
How many rows:10
How many cols:10
      Multiplication Table

 1   2   3   4   5   6   7   8   9  10
 2   4   6   8  10  12  14  16  18  20
 3   6   9  12  15  18  21  24  27  30
 4   8  12  16  20  24  28  32  36  40
 5  10  15  20  25  30  35  40  45  50
 6  12  18  24  30  36  42  48  54  60
 7  14  21  28  35  42  49  56  63  70
 8  16  24  32  40  48  56  64  72  80
 9  18  27  36  45  54  63  72  81  90
10  20  30  40  50  60  70  80  90 100
```

Sample Output 2.

```
How many rows:3
How many cols:5
      Multiplication Table

 1   2   3   4   5
 2   4   6   8  10
 3   6   9  12  15
```

CODE:

```
row =int(input("How many rows:"))
col =int(input("How many columns:"))
print("\nMultiplication Table\n")
for i in range(1,row + 1):
    for j in range(1,col + 1):
        print(f"{i * j:4}", end="")
    print()
```