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BIT-23F-042

SECTION: "B"

ARTIFICIAL INTELLIGENCE

LAB 7

ASSIGNMENT

MISS: AQSA

TASK 01:

Q: Write a Python function that draws a square using asterisks (*). The side length of the square should be provided by the user?

CODE:

```
def draw_square(side_length):
    # Draw the top side
    print('*' * side_length)

    # Draw the middle parts (only sides with space in between)
    for i in range(side_length - 2):
        print('*' + ' ' * (side_length - 2) + '*')

    # Draw the bottom side, if the side length is greater than 1
    if side_length > 1:
        print('*' * side_length)

# Get the side length from the user
side_length = int(input("Enter the side length of the square: "))

# Draw the square
draw_square(side_length)
```

OUTPUT:

Enter the side length of the square: 3

```
***
* *
***
```

TASK 02:

Q: Write a Python function that takes a list of numbers as input and returns the sum of only the even numbers?

CODE:

```
def sum_of_even_numbers(numbers):  
  
    # Use a list comprehension to filter even numbers and sum them  
    return sum(number for number in numbers if number % 2 == 0)  
  
# Ask the user for input  
numbers = list(map(int, input("Enter a list of numbers separated by spaces: ").split()))  
print("The sum of the even numbers is:", sum_of_even_numbers(numbers))
```

OUTPUT:

Enter a list of numbers separated by spaces: 3 4 5 6 7 4 5

The sum of the even numbers is: 14

TASK 03:

Q: Write a Python function that takes a number as input and counts down to zero, printing each number?

CODE:

```
def countdown_to_zero(number):  
    while number >= 0:  
        print(number)  
        number -= 1  
  
# Ask the user for input  
number = int(input("Enter a number to start the countdown: "))  
countdown_to_zero(number)
```

OUTPUT:

Enter a number to start the countdown: 5

5

4

3

2
1
0