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***BIT-23F-021***

***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

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\* \*

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=== Code Execution Successful ===

**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

=== Code Execution Successful ===

**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

=== Code Execution Successful ===