

***Lab No 3:***

Artificial Intelligence

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Q#1

***write a python program find those numbers which are divisible by 7 and multiple of 5,numbers are between 1500 and 2700(both include)***

def find\_numbers(divisible\_by, multiple\_of, start, end):

results = []

for number in range(start, end + 1):

if number % divisible\_by == 0 and number % multiple\_of == 0:

results.append(number)

return results

# Define the range

start = 1500

end = 2700

# Find numbers

numbers = find\_numbers(7, 5, start, end)

print("Numbers divisible by 7 and multiples of 5:")

print(numbers)

***Output:***

***Numbers divisible by 7 and multiples of 5:***

***[1505, 1540, 1575, 1610, 1645, 1680, 1715, 1750, 1785, 1820, 1855, 1890, 1925, 1960, 1995, 2030, 2065, 2100, 2135, 2170, 2205, 2240, 2275, 2310, 2345, 2380, 2415, 2450, 2485, 2520, 2555, 2590, 2625, 2660, 2695]***

=== Code Execution Successful ===

Q#2

# celcius to fahrenheit

celsius = int(input("Enter the Temperature in Celsius :\n"))

fahrenheit = (1.8 \* celsius) + 32

print("Temperature in Fahrenheit :", fahrenheit)

fahrenheit = int(input("Enter a temperature in fahrenheit: \n"))

celsius = int((fahrenheit - 32) \* 5/9)

print("temperature in celcious :" , celsius )

'''

# Import the 'random' module to generate random numbers

import random

# Generate a random number between 1 and 10 (inclusive) as the target number

target\_num, guess\_num = random.randint(1, 10), 0

# Start a loop that continues until the guessed number matches the target number

while target\_num != guess\_num:

    # Prompt the user to input a number between 1 and 10 and convert it to an integer

    guess\_num = int(input('Guess a number between 1 and 10 until you get it right : '))

# Print a message indicating successful guessing once the correct number is guessed

print('Well guessed!')

Q#3

***Write a python program to guess a number between 1 to 9***

import random

def guess\_number():

# Generate a random number between 0 and 9

number\_to\_guess = random.randint(0, 9)

guess = None

print("Guess the number between 0 and 9")

# Loop until the user guesses the correct number

while guess != number\_to\_guess:

# Get user input

guess = int(input("Enter your guess: "))

if guess < number\_to\_guess:

print("Too low! Try again.")

elif guess > number\_to\_guess:

print("Too high! Try again.")

else:

print("Congratulations! You guessed the right number.")

# Run the game

guess\_number()

***write a python program to constract the following pattern .using a nested loop***

***# Number of rows for the upper part of the pattern***

rows = 5

# Generate the upper part of the pattern

for i in range(1, rows + 1):

for j in range(i):

print("\*", end="")

print("")

# Generate the lower part of the pattern

for i in range(rows - 1, 0, -1):

for j in range(i):

print("\*", end="")

print("")

***write a python program that accepts a word from the user and reverse it.***

# Function to reverse a word

def reverse\_word(word):

return word[::-1]

# Accepting input from the user

user\_input = input("Enter a word: ")

# Reversing the word

reversed\_word = reverse\_word(user\_input)

# Displaying the reversed word

print("Reversed word:", reversed\_word)

***write a python program to count the number of even and odd numbers from a series of numbers Sample numbers:numbers(1,2,3,4,5,6,7,8,9)***

def count\_even\_odd(numbers):

even\_count = 0

odd\_count = 0

for number in numbers:

if number % 2 == 0:

even\_count += 1

else:

odd\_count += 1

return even\_count, odd\_count

# Sample numbers

numbers = (1, 2, 3, 4, 5, 6, 7, 8, 9)

even\_count, odd\_count = count\_even\_odd(numbers)

print(f"Even numbers count: {even\_count}")

print(f"Odd numbers count: {odd\_count}")

Output:

Even numbers count: 4

Odd numbers count: 5

***write a python program that prints all the numbers from 0 to 6 except 3 and 6. note :using continue statement:***

for number in range(7):

if number == 3 or number == 6:

continue

print(number)

output:

0

1

2

4

5