1. Write a Python program to find those numbers which are divisible by 7 and multiple of 5, between 1500 and 2700 (both included).

numbers = [num for num in range(1500, 2701) if num % 7 == 0 and num % 5 == 0]

print("Numbers divisible by 7 and multiple of 5 between 1500 and 2700:")

print(numbers)

1. Write a Python program that accepts a word from the user and reverse it.

word = input("Enter a word: ")

reversed\_word = word[::-1]

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

1. Write a Python program to calculate a dog's age in dog's years.  Note: For the first two years, a dog year is equal to 10.5 human years. After that, each dog year equals 4 human years.

human\_years = int(input("Enter the dog's age in human years: "))

if human\_years < 0:

print("Invalid input.")

elif human\_years <= 2:

dog\_years = human\_years \* 10.5

else:

dog\_years = 21 + (human\_years - 2) \* 4

print("The dog's age in dog's years:", dog\_years)

1. Write a Python program to check a triangle is equilateral, isosceles or scalene

side1 = float(input("Enter the length of side 1: "))

side2 = float(input("Enter the length of side 2: "))

side3 = float(input("Enter the length of side 3: "))

if side1 == side2 == side3:

print("Equilateral triangle")

elif side1 == side2 or side1 == side3 or side2 == side3:

print("Isosceles triangle")

else:

print("Scalene triangle")

1. Write a Python program to detect the number of local variables declared in a function.

def count\_local\_variables():

variable1 = 10

variable2 = "Hello"

variable3 = [1, 2, 3]

variable4 = {"a": 1, "b": 2}

variable5 = True

return len(locals())

num\_locals = count\_local\_variables()

print("Number of local variables:", num\_locals)

1. Write a Python program to execute a string containing Python code.

def count\_local\_variables():

variable1 = 10

variable2 = "Hello"

variable3 = [1, 2, 3]

variable4 = {"a": 1, "b": 2}

variable5 = True

return len(locals())

num\_locals = count\_local\_variables()

print("Number of local variables:", num\_locals)

1. Write a Python program to convert a given list of tuples to a list of strings using map function.

tuple\_list = [("apple", "banana"), ("orange", "grape"), ("watermelon", "melon")]

string\_list = list(map(lambda x: ' '.join(x), tuple\_list))

print("List of strings:", string\_list)

1. Write a Python program to split a given dictionary of lists into list of dictionaries using map function.

dictionary = {

"names": ["Alice", "Bob", "Charlie"],

"ages": [25, 30, 35],

"cities": ["New York", "London", "Paris"]

}

split\_list = list(map(lambda \*args: dict(zip(dictionary, args)), \*dictionary.values()))

print("List of dictionaries:", split\_list)

1. Write a Python program to scan a specified directory and identify the sub directories and files.

import os

directory = input("Enter a directory path: ")

subdirectories = []

files = []

for entry in os.listdir(directory):

full\_path = os.path.join(directory, entry)

if os.path.isdir(full\_path):

subdirectories.append(entry)

elif os.path.isfile(full\_path):

files.append(entry)

print("Subdirectories:")

print(subdirectories)

print("Files:")

print(files)

1. Write a Python program to parse a string representing time and returns the structure time.
2. Write a Python code to send some sort of data in the URL's query string.
3. Write a Python code to send a request to a web page, and print the information of headers. Also parse these values and print key-value pairs holding various information.
4. Write a Python program to write a Python dictionary to a csv file. After writing the CSV file read the CSV file and display the content.
5. Write a Python program that reads each row of a given csv file and skip the header of the file. Also print the number of rows and the field names.
6. Write a Python program to check that a string contains only a certain set of characters (in this case a-z, A-Z and 0-9)