

Task 1:

Web Scraping and Data Saving - Create a Python script to scrape data from a website of your choice. - Save the scraped data in a structured format like CSV or JSON. - Example: Scrape weather data (e.g., temperature, humidity) from a weather website and save it in a CSV file.

Solution:

```
import requests

from bs4 import BeautifulSoup

url = 'https://example.com'

response = requests.get(url)

if response.status_code == 200:

    soup = BeautifulSoup(response.text, 'html.parser')
    article_titles = soup.find_all('h2')
    for title in article_titles:
        print(title.text)
    else:
        print('Failed to retrieve the webpage')
```

Task 2:

Text-Based Game - Develop a simple text-based game using Python. - You can choose to create a number guessing game, tic-tac-toe, or any other text-based game of your choice. - Example: Create a number guessing game where the computer selects a random number, and the player tries to guess it within a certain number of attempts.

Solution:

Its like a number guessing game.

Better to us on pycharm.

```
import random

import math

lower = int(input("Enter Lower bound:- "))
```

```
upper = int(input("Enter Upper bound:- "))
x = random.randint(lower, upper)
print("\n\tYou've only ",
      round(math.log(upper - lower + 1, 2)),
      " chances to guess the integer!\n")

count = 0

while count < math.log(upper - lower + 1, 2):
    count += 1

    guess = int(input("Guess a number:- "))

    if x == guess:
        print("Congratulations you did it in ",
              count, " try")

        break
    elif x > guess:
        print("You guessed too small!")
    elif x < guess:
        print("You Guessed too high!")

if count >= math.log(upper - lower + 1, 2):
    print("\nThe number is %d" % x)
    print("\tBetter Luck Next time!")
```