EASTERN INTERNATIONAL UNIVERSITY

SCHOOL OF COMPUTING

AND INFORMATION TECHNOLOGY

Practice Assignment – Quarter 2, 2023-2024

Course Name: OOP

Course Code: CSE 203

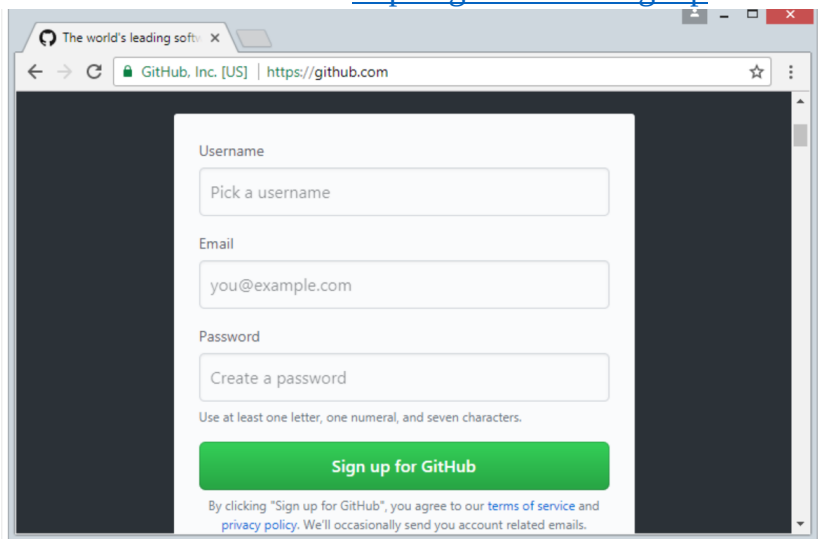
Student's Full Name:

Student ID:

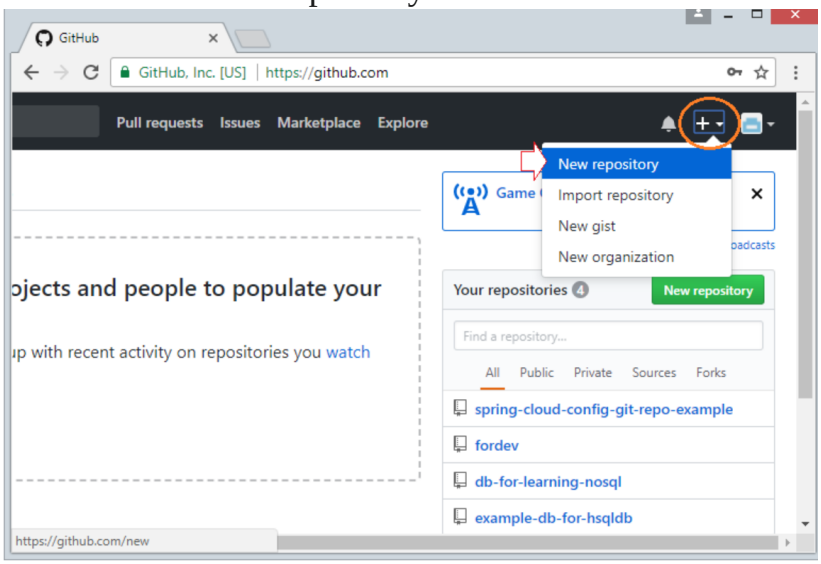
Lab 1

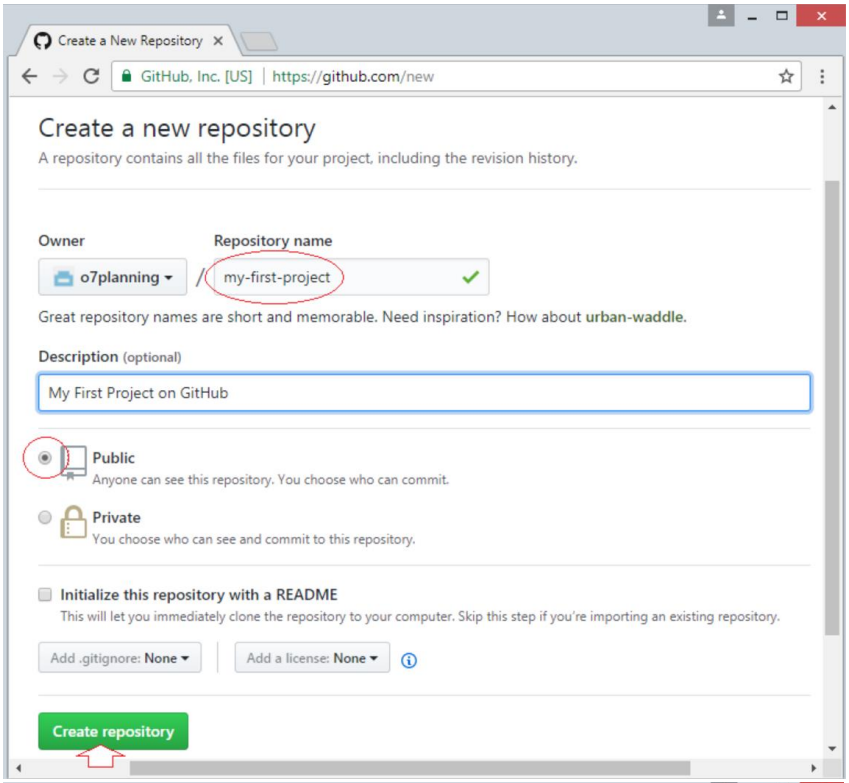
Question 1. Github

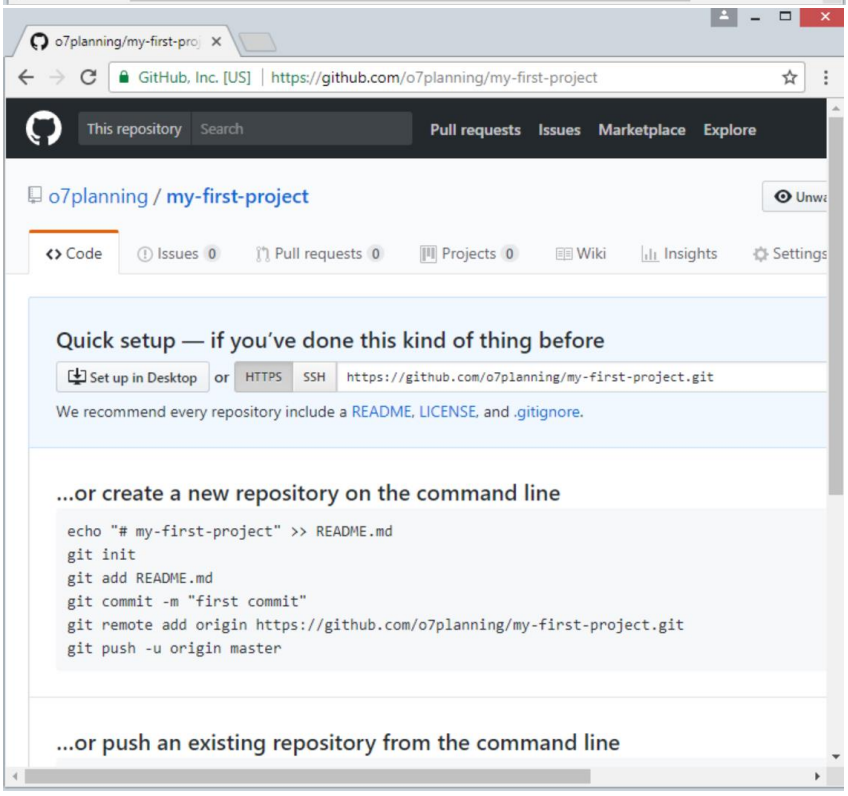
- Create a Github account: https://github.com/signup



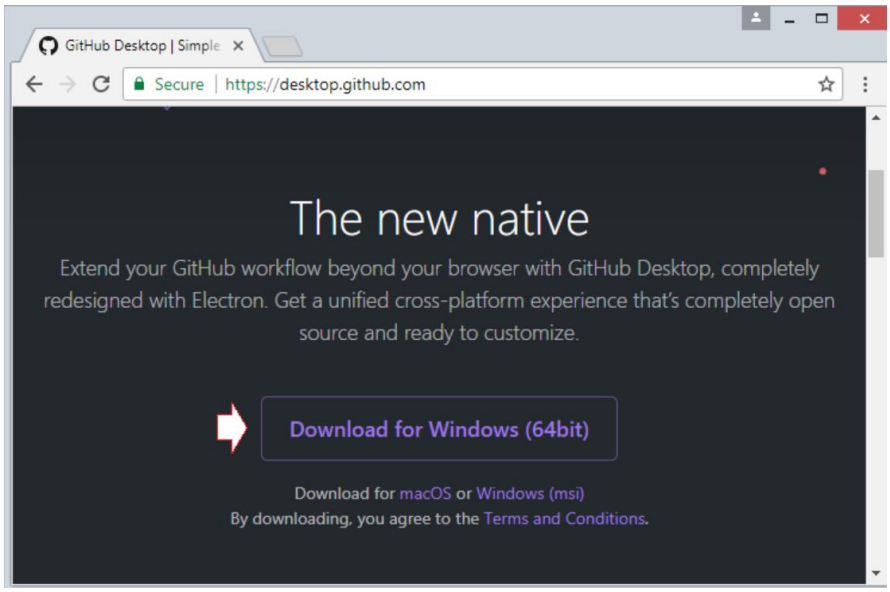
- Create GitHub Repository



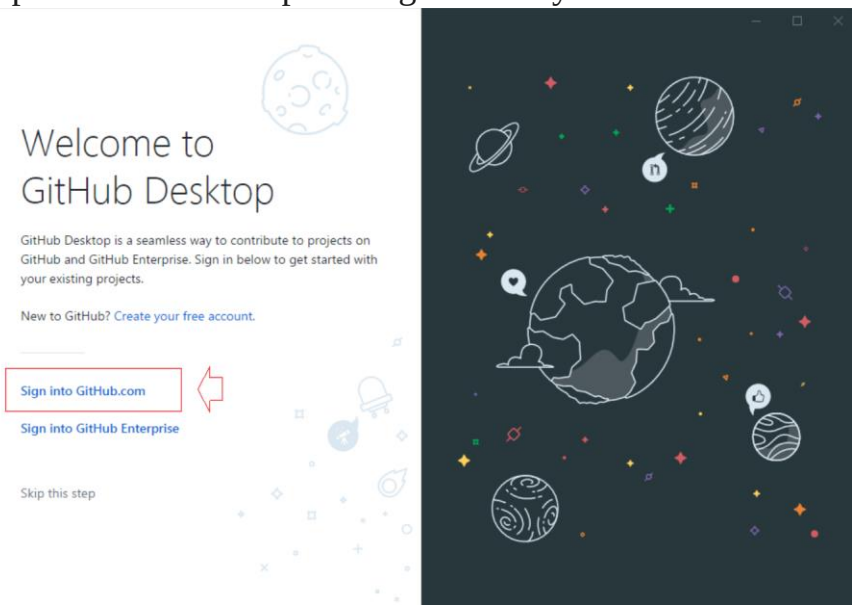




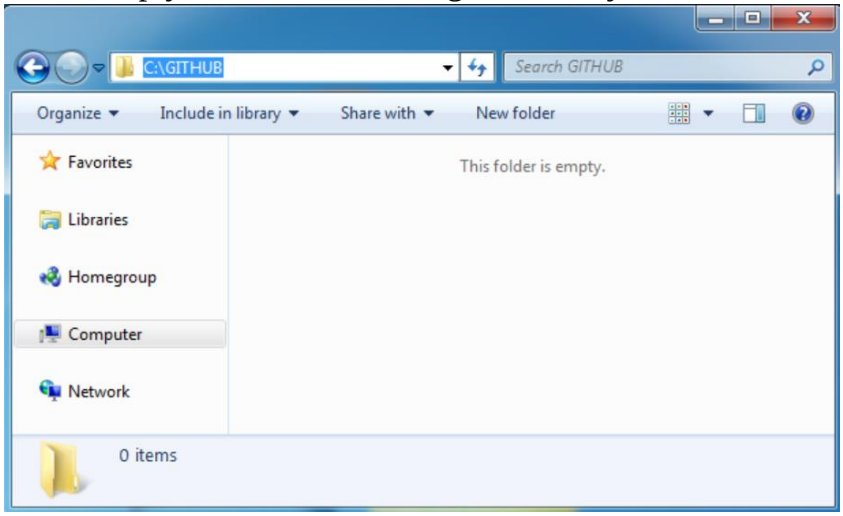
Download Github Desktop and install: https://desktop.github.com/



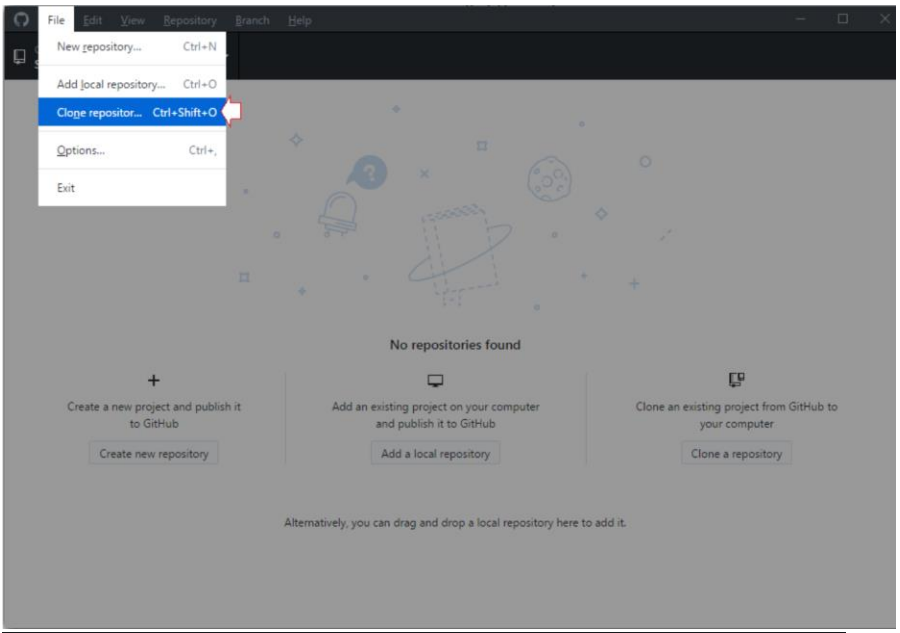
- Open Github Desktop and Sign in with your Github account

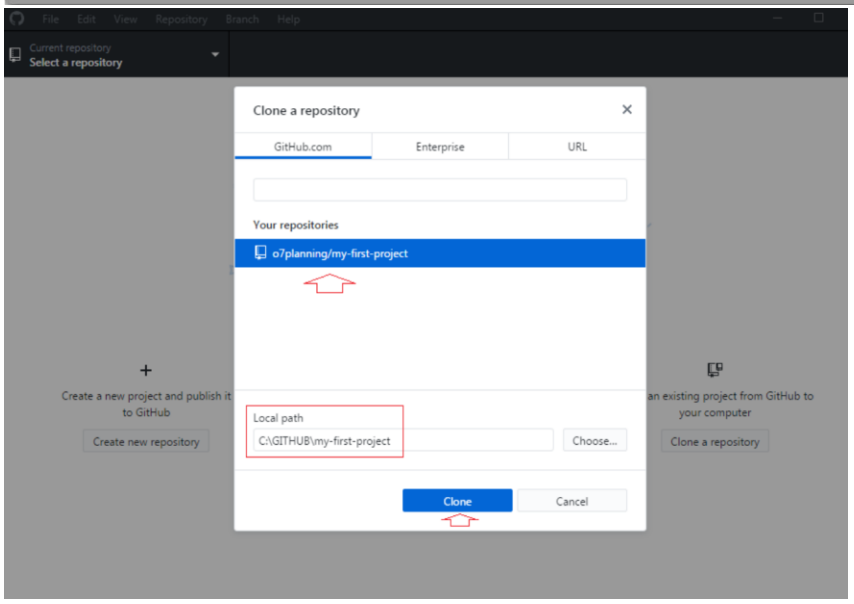


- Create an empty folder to store assignment/Project.

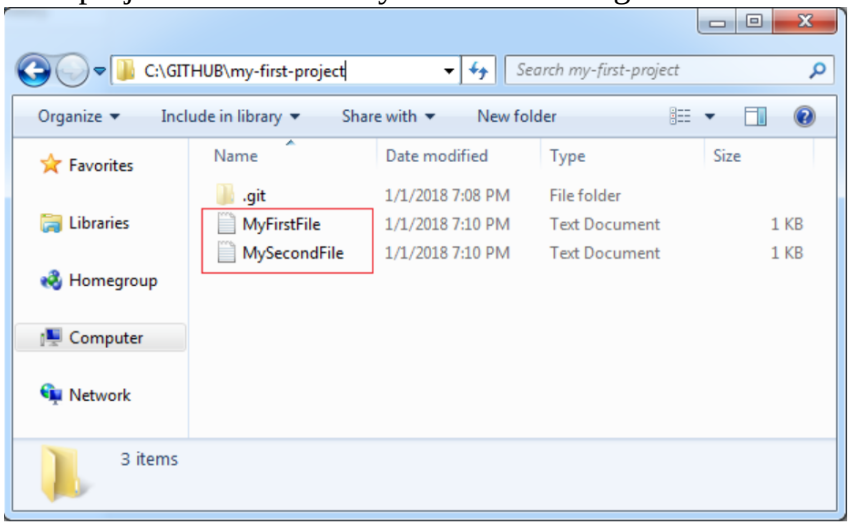


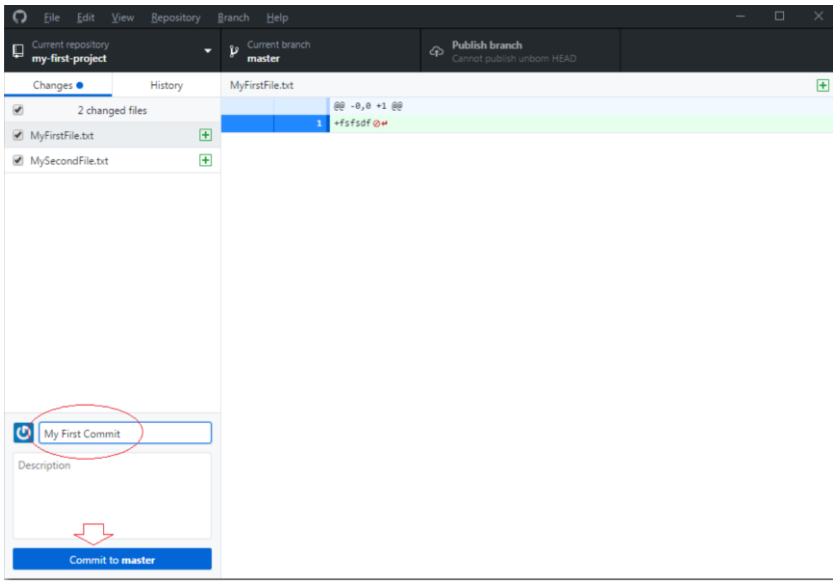
- On **GitHub Desktop, select a** repository **you created on** GitHub **to** clone





- Create a project to the directory and commit to github





Question 2. Using Java to solve the problems below

1. Write a program to sum the first digit and the last digit of a number.
2. Write a program to find the minimum between three numbers.
3. Write a program that displays the Hailstone sequence: With some positive number (n > 0):
    a. If n is an even number, divide by 2.
    b. If n is an odd number, multiply it by 3 and add 1.
    c. Repeat two steps above until n equals 1.

• For example, choose n = 5

```
C:\Users\Admin\Desktop\Java Exercise\Solve>java Hailstone
5
5 is odd, so we take 3*n+1: 16
16 is even, so we take n/2: 8
8 is even, so we take n/2: 4
4 is even, so we take n/2: 2
2 is even, so we take n/2: 1
```

4. Write a program to sum all even numbers of an array. (**using primitive array**).
5. Write a Java program: Enter an array and make the following requests: **(using ArrayList)**:

a. Write a function to remove the first specific element from an array and return *true*, if the element does not exist in an array return *false*.

b. Write a function to insert an element a specific position into an array. (After insertion you can replace the last element with the element before) (Ex: a = [1,2,4,3] insert 5 at position 2

→ [1,2,5,4])

c. Write a function to find the duplicate values of an array of integer values. (Ex: a = [1,3,1,3,2,4] → [1,3])

d. Write a function to remove the duplicate values of an array of integer values. (Ex: a = [1,3,1,3,2,4] → [1,3,2,4])

6. Write a Java program: Enter a string, making the following requests.
    a. Find the length of the string.
    b. Count the number of words in string.
    c. Concatenate one string's contents to another.
    d. Check if a string is palindrome or not.

Submitted: github link (public) and all source code (*.rar file) submitted to moodle