Lab 3

Recap: Lab (Github) Workflow 📝 - How to Work on Labs

Follow these steps for every lab carefully to access, complete, and submit your assignment.

Please make sure you write your code in the correct file. Do NOT edit or adjust any files that has the word "Test" in the name. Failure to do may result in receiving a 0 in this lab.

1. **Accept the Assignment**

   - Open the Lab Assignment Link the professor provided.
   - Click **"Accept the assignment"**. This will create your personal assignment repository on GitHub under the correct organization for the semester.
   - You'll be taken to your repository page. Verify that the URL looks like `github.com/organization-this-semester/lab-number-yourusername`.

2. **Clone the Repository to Your Computer**

   - On your repository page, click the blue `<> Code` button.
   - In the dropdown menu, choose **"Open with GitHub Desktop"**.
   - GitHub Desktop will launch. Choose a preferred local folder on your computer to save the project and click **"Clone"**.
   - If asked "How are you planning on using this fork?", select **"For my own purpose"** and continue.

3. **Open in VS Code and Start Coding**

   - In GitHub Desktop, ensure the "Current repository" is the one for this lab.
   - Click the **"Open in Visual Studio Code"** button.
   - VS Code will open the project folder. You can now begin writing your solutions in the `Lab02.java` file.

4. **Save and Submit Your Work**

   - **Commit (Save) Changes**: As you work, save your file in VS Code (`Ctrl+S` or `Cmd+S`). To record your progress, go to the **Source Control** tab (the fork icon) on the left sidebar in VS Code. Type a descriptive message in the message box (e.g., "Finished Task 1 and 2") and click **"Commit"**. You must enter a message.
   - **Push (Submit) to GitHub**: When you are finished with the lab or want to back up your work, go back to GitHub Desktop. Click the **"Push origin"** button at the top of the window. This sends your committed changes from your computer to your GitHub repository online.

5. **Verify Your Submission**

   - After you push, you can click **"View on GitHub"** in GitHub Desktop to open your repository in the browser.
   - On the GitHub website, make sure you are viewing the `main` branch and confirm that all of your latest code is visible.

Lab 3 Tasks

Task 1: Square Feet

Objective: Ask the user for the width and the length of a rectangle, then calculate and print its area. The formula is `area = width * length`.

Example Output

```
Width: 10
Length: 20
The area is: 200
```

Task 2: How Many Minutes?

Objective: Ask the user for a number of hours and a number of minutes, then print the total number of minutes. Remember that one hour has 60 minutes.

Example Output

```
Number of hours: 3
Number of minutes: 15
The total number of minutes is: 195
```

Task 3: Use the Force Harry!

Objective: Ask the user for a total number of minutes and convert it into hours and minutes. For example, all the Harry Potter movies are 1,179 minutes long.

Hint: You will need to use the division (`/`) and modulo (`%`) operators to solve this.

Example Output

```
Total minutes: 1179
Total time: 19 hours 39 minutes
```

Task 4: What's Your Name?

Objective: Ask the user for their first name and their last name, and then print their full name.

Example Output

```
What is your first name: Sarah
What is your last name: Lin
Your full name is: Sarah Lin
```

Task 5: Mad Libs

Objective: Create a simple Mad Libs game. You will ask the user for a noun, a verb, a place, and an adjective, and then use their answers to create a story.

Example Output

```
Enter a noun: dog
Enter a verb: walk
Enter a place: school
Enter an adjective: smart
A dog took a walk by school because they were smart.
```

Task 6: DPS

Objective: In video games, DPS stands for Damage Per Second. Ask the user for a character's name, their DPS, and the number of seconds they attack. Then, print out the total damage done.

Example Output

```
Name: Pharah
DPS: 120
Seconds: 2
Pharah did 120 dps for 2 seconds which is 240 damage.
```