

Hands-on Lab: Develop Followers Count Milestone Alerts Using Functions



Estimated time needed: 20 minutes

What you will learn

In this lab, you will create a functional follower counter for an Instagram post and simulate the increase in followers. You will grasp the fundamentals of managing a count variable to simulate a follower count on a social media platform like Instagram. You will understand the basic principles of managing state (the follower count), updating UI elements dynamically, and triggering actions based on certain conditions in JavaScript.

Learning objectives

After completing this lab, you will be able to:

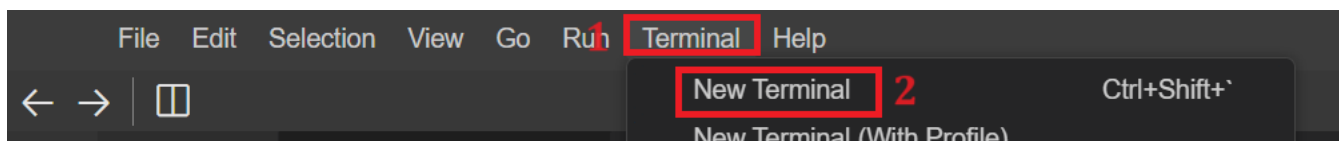
- **Variables and incrementation:** Learn how to use variables in JavaScript to store and modify data, in this case, to simulate increasing follower counts.
- **Updating web content:** Understand how JavaScript interacts with HTML elements to dynamically update content on a webpage, like displaying follower counts.
- **Conditional statements:** Explore how to create conditions in code using if-else statements to trigger specific actions based on certain criteria, such as displaying congratulatory messages at follower milestones.
- **Function usage:** Learn how functions in JavaScript are defined and called to perform specific tasks, enabling the control flow of the program and organizing code for better management and reusability.

Prerequisites

- Basic Knowledge of HTML and Git commands.
- Basic understanding of functions, parameterized functions and return statement.
- Web browser with a console (Chrome DevTools, Firefox Console, and so on).

Step 1: Setting up the environment

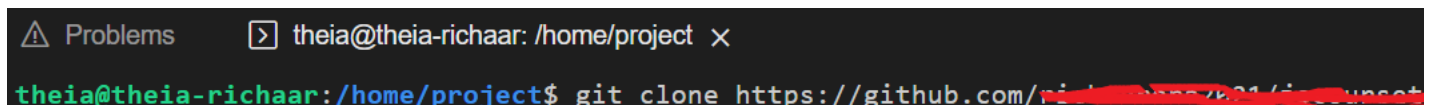
1. Firstly, you need to clone your main repository in the **Skills Network Environment** which you have created in the first lab and where you have pushed all of your previous labs files and folders. Follow given steps:
 - Click on terminal in the top-right window pane and then select **New Terminal**.



- Perform `git clone` command by writing given command in the terminal.

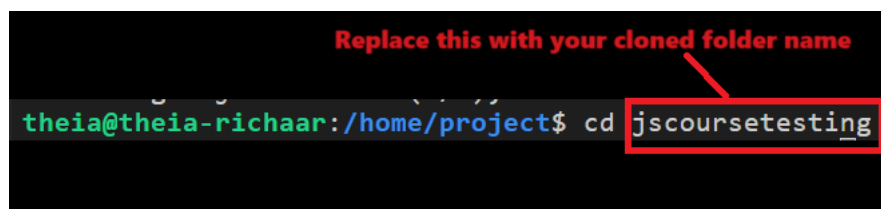
```
git clone <github-repository-url>
```

Note: Put your own GitHub repository link instead of `<github-repository-url>`.



- Above step will clone folder for your GitHub repository under project folder in explorer. You will also see multiple folders inside cloned folder.
- Now you need to navigate inside the cloned folder. For this write given command in the terminal:

```
cd <repository-folder-name>
```



Note: Write your cloned folder name instead of `<repository-folder-name>`. Perform `git clone` if you have logged out of **Skills Network Environment** and you cannot see any files or folder after you logged in.

- Next, select **cloned Folder Name** folder, right-click on it and select **New Folder**. Enter folder name as **followersCount**. It will create the folder for you. Then select **followersCount** folder, right-click and select **New File**. Enter file named as **followers_count.html** and click OK. It will create your HTML file.
- Now select **followersCount** folder again, right-click and select **New File**. Enter file named as **followers_count.js** and click OK. It will create your JavaScript file.
- Create basic template structure for **followers_count.html** file by adding the content given below.

```
<!DOCTYPE html>
<html>
<head>
<title>Interactive Counter</title>
</head>
<body>
<h1>Interactive Counter</h1>
<h2>Account Holder Name: Peter Parker</h2>
<p>Followers: <span id="countDisplay">0</span></p>
<hr>
<h2>Click one button to follow</h2>
<button onclick="increaseCount()">Follow</button>
<script src="./followers_count.js"></script>
</body>
</html>
```

Note: When you have pasted the code, save your file.

- Above code includes a basic setup for a follow button that updates the follower count in real-time when clicked. The code has:-
 - "Interactive Counter" as heading for Peter Parker's account using <h1>. The code has <h2> tag shows his name and the number of followers, initially set to 0 using <p> tag.
 - There's a button labeled "Follow" that, when clicked, triggers a function called "increaseCount()". This function increments the follower count displayed on the page.
 - It has one <script> tag to include js file in **followers_count.html** file using **src** attribute.

Step 2: Defining variables and functions

- In **followers_count.js**, initialize the count variable. This code sets up a variable count and initializes it to 0, serving as the starting point for the follower count.

```
let count = 0; // Initialize count to 0
```

- Create functions to increase count of followers and display the count on the web page using the following steps:

- Create **increaseCount()** function to increment the count variable by 1 in **followers_count.js** file.

```
function increaseCount() {
  count++; // Increment the count by 1
}
```

- Create **displayCount()** function in **followers_count.js** file after **increaseCount()** function to display count in the HTML element with the ID **countDisplay** and updates its content to reflect the current count value.

```
function displayCount() {
  document.getElementById('countDisplay').innerHTML=count; // Display the count in the HTML
}
```

- Now, call **displayCount()** function inside the **increaseCount()** function to increase and display count value simultaneously. Write given codw after **displayCount()** in **followers_count.js** file.

```
function increaseCount() {
  count++; // Increment the count by 1
  displayCount(); // Display the count
}
```

Step 3: Defining variables and functions to show

- Create the **checkCountValue()** function to check the value of count and trigger alerts when specific follower milestones (10 or 20) are reached using following code. Write provided code after the **increaseCount()** in the **followers_count.js** file.

```
function checkCountValue() {
  if (count === 10) {
    alert("Your Instagram post gained 10 followers! Congratulations!");
  } else if (count === 20) {
    alert("Your Instagram post gained 20 followers! Keep it up!");
  }
}
```

- The checkCountValue() function examines the value of the count variable. If the count reaches 10, it triggers an alert saying "Your Instagram post gained 10 followers! Congratulations!".
 - Similarly, if the count hits 20, it prompts an alert saying "Your Instagram post gained 20 followers! Keep it up!". This function is designed to provide celebratory messages when specific follower milestones are achieved.
- Next, you need to call this function inside the **increaseCount()** function to show the milestones as well.

```
function increaseCount() {
  count++; // Increment the count by 1
```

```


displayCount(); // Display the count
checkCountValue(); // Check count value and display messages
}

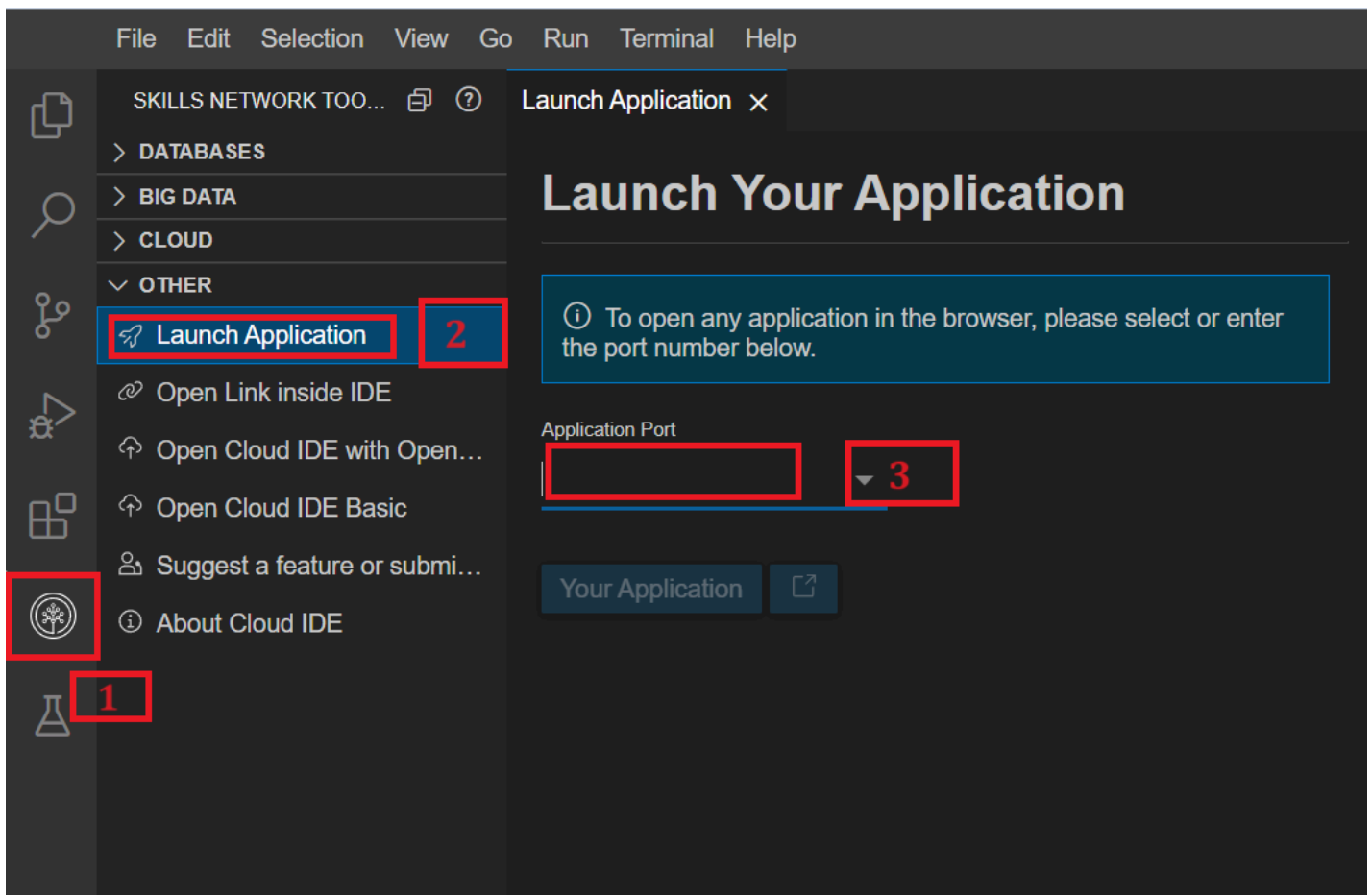
```

Step 4: Check the output

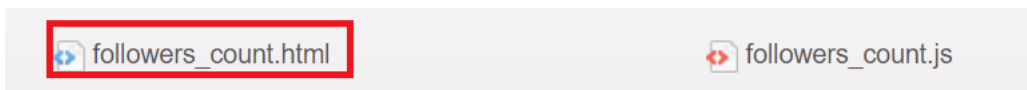
1. To view your HTML page, right-click the **followers_count.html** file after selecting this file, then select "Open with Live Server".
2. The server should start on port 5500, indicated by a notification on the bottom-right side.



3. Click on the Skills Network button on the left (refer to number 1), it will open the "Skills Network Toolbox". Then click **Launch Application** (refer to number 2).
From there you enter the port no. as 5500 at number 3 and click on this button .



4. It will open your default browser where you will see **cloned-folder-name** folder name. Click on that **cloned-folder-name** folder name and then click on **followersCount** folder name. You will see files related to this folder where you will click again on **followers_count.html** file as shown below.



3. It will open the HTML page that displays the following information.

Interactive Counter

Account Holder Name: Peter Parker

Followers: 0

Click given button to follow

Follow

4. Then click on **Follow** button and you will see the increase in count.

5. As soon as the count reaches 10, you will see an alert pop up box displaying a congratulatory message.

This page says

Your Instagram post gained 10 followers! Congratulations!

OK

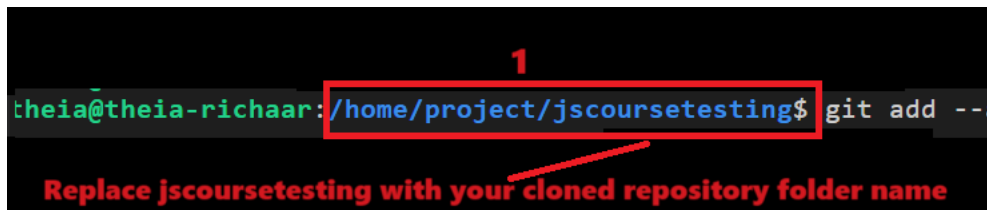
Note: When you have pasted the code, save your file. For this you can to use any output method. If you will edit your code, then just refresh your browser which is running through port number 5500. This way there is no need to launch application again and again.

Step 5: Perform Git commands

1. Perform `git add` to add latest files and folder by writing given command in terminal in git environment.

```
git add --a
```

Make sure terminal should have path as follows:



2. Then perform `git commit` in the terminal. While performing `git commit`, terminal can show message to set up your `git config --global` for user. name and user.email. If yes, then you need to perform `git config` command as well for user.name and user.email as given.

```
git config --global user.email "you@example.com"
```

```
git config --global user.name "Your Name"
```

Note: Replace data within quotes with your own details.

Then perform commit command as given:

```
git commit -m "message"
```

3. Then perform `git push` just by writing given command in terminal.

```
git push origin
```

- After the push command, the system will prompt you to enter your username and password. Enter the username for your GitHub account and the password that you created in the first lab. After entering the credentials, all of your latest folders and files will be pushed to your GitHub repository.

Practice task

1. In this task you need to create a reset button which will reset the followers count code. For this you need to include:

- One button to represent Reset Count in **followers_count.html** file.
- Then create one function in **followers_count.js** file to reset count to 0.
- Also use alert popup box method to show alert message which will say that the Followers count has been reset.

Summary

1. **Setting Up the Environment:** HTML structure with a header displaying the account holder's name (Peter Parker) and a follower count displayed as "0" within a span element.
2. **Defining Variables and Functions:** A button triggers the "increaseCount()" function, incrementing the follower count when clicked, updating the displayed count dynamically, and triggering alerts at 10 and 20 follower milestones.
3. **Displaying Incremental Result:** JavaScript functions manage the count incrementation, display of follower count on the HTML page, and the conditional display of congratulatory messages for specific follower milestones (10 and 20 followers).

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