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Lesson 10 Demo 01

Creating and Executing a Basic GitHub Actions Workflow

Objective: To create and execute a basic GitHub Actions workflow for automated testing and deployment, enhancing the efficiency and reliability of project development processes

Tools required: GitHub

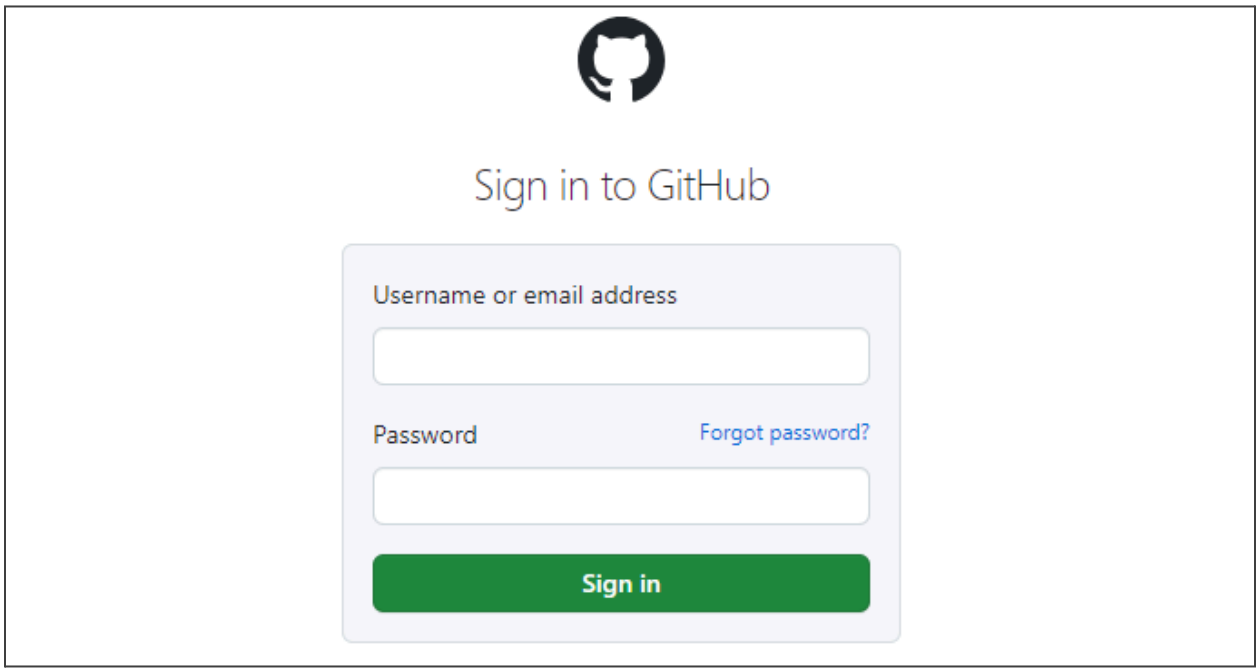
Prerequisites: None

Steps to be followed:

1. Create a new GitHub repository
2. Create and execute a new workflow file

Step 1: Create a new GitHub repository

1.1 Open the browser in your lab, go to **github.com**, and log in to your account



Note: If you do not have a GitHub account, visit the official website at https://github.com/signup and create a new account

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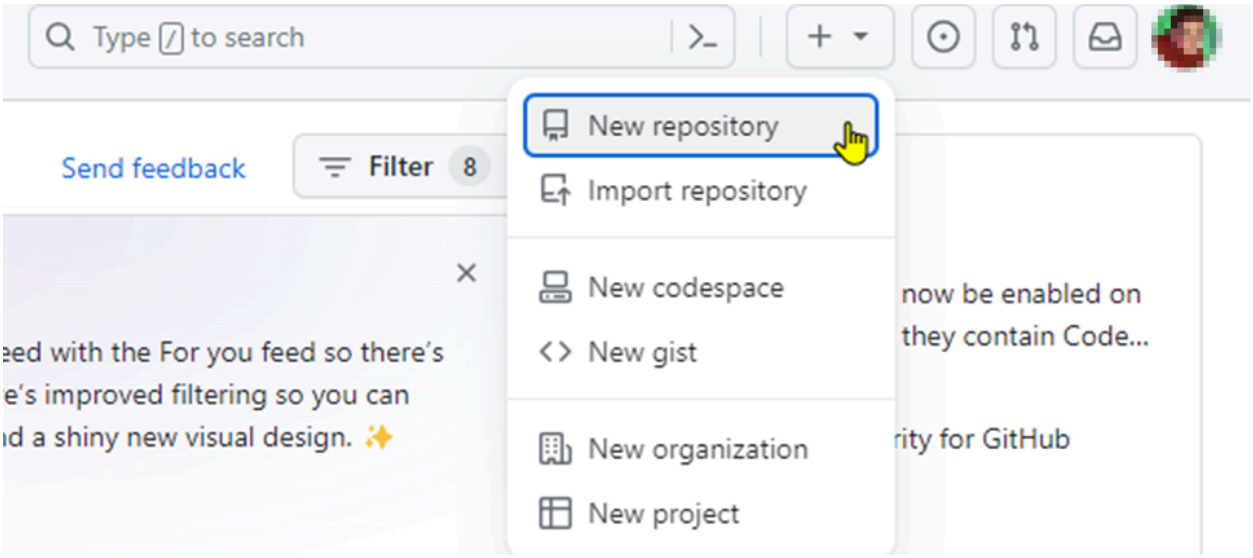
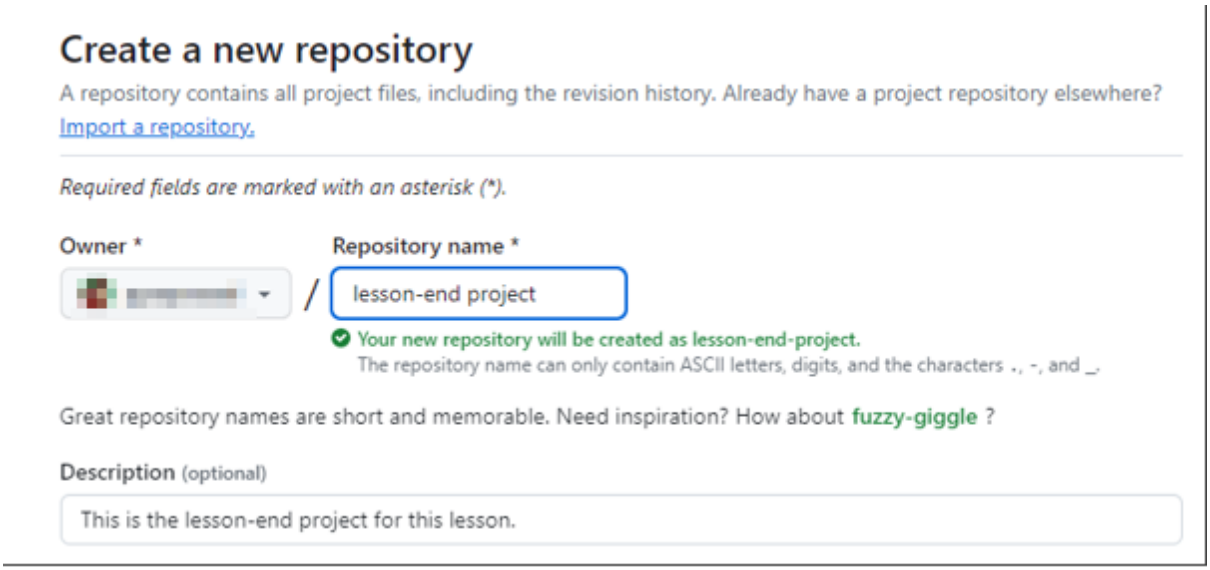
1.2 Click on the **+** icon from the upper-right corner of the page and select **New repository** from the drop-down menu



1.3 Enter the name and description for the GitHub repository



1.4 Choose **Public** for the repository type

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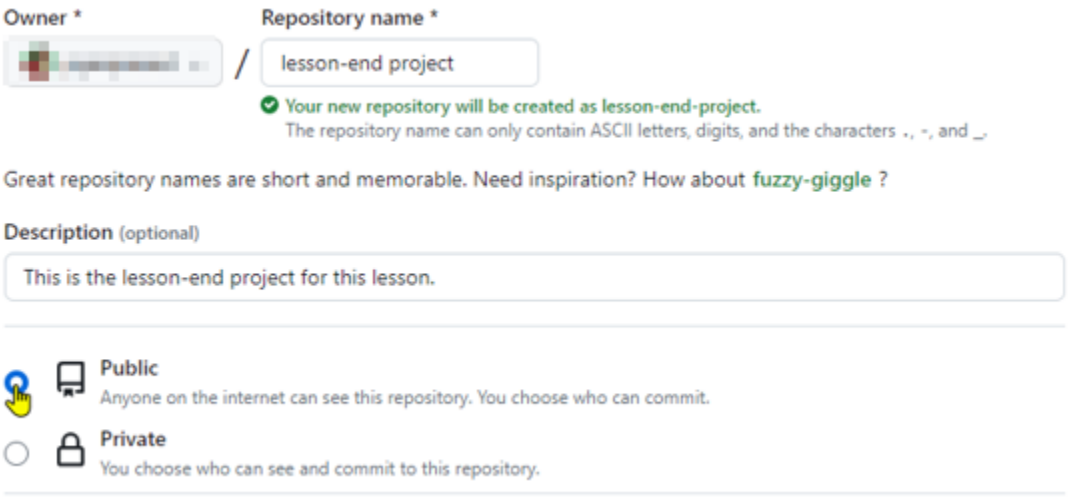
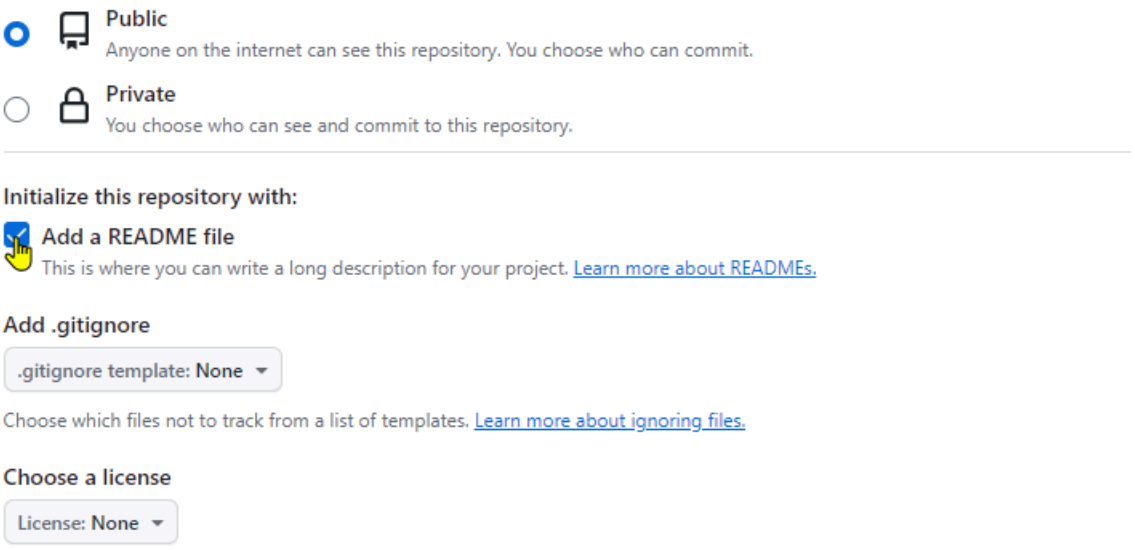


1.5 Select **Initialize this repository with a README** to include a README file for the repository



1.6 Click on the **Create repository** button

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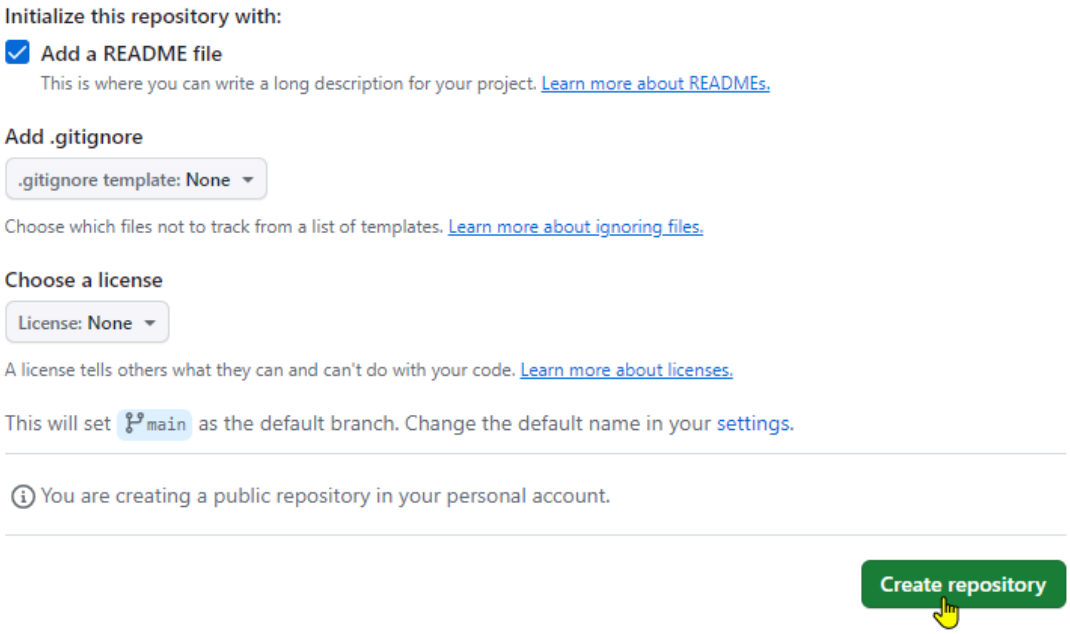
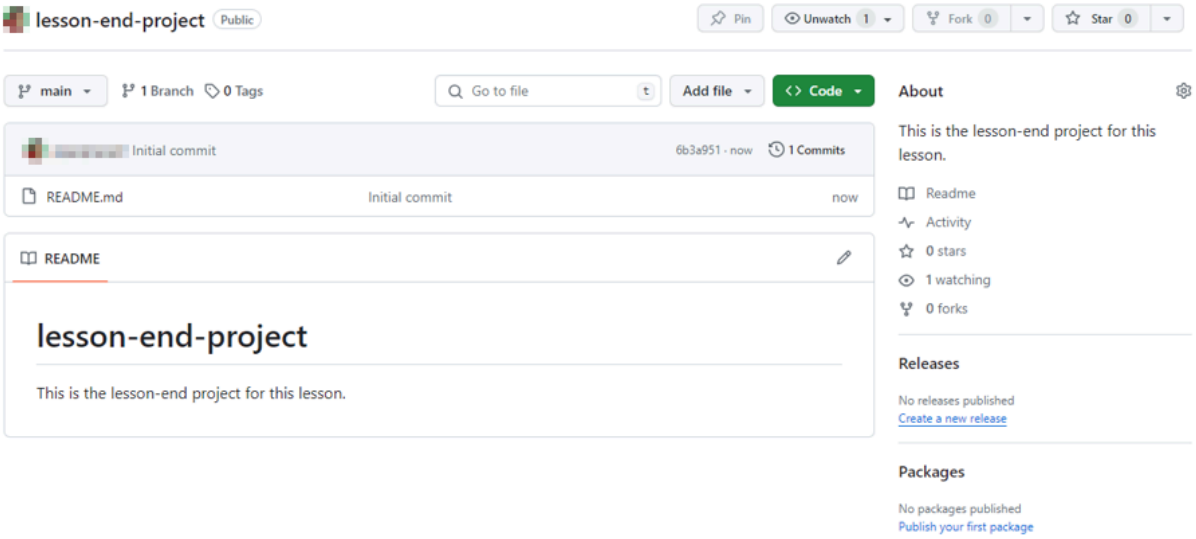
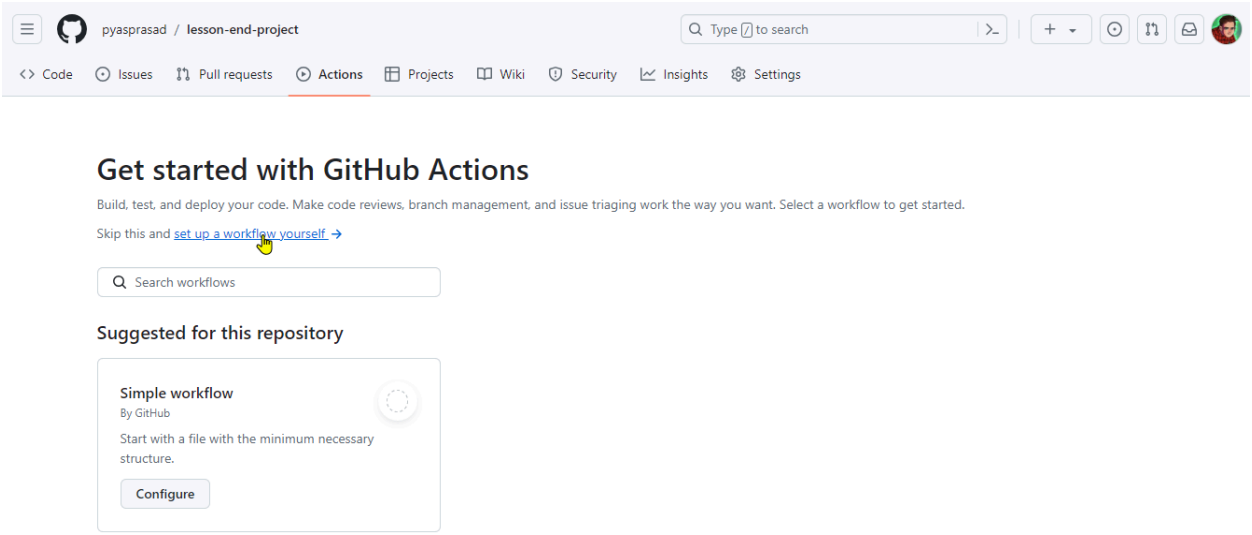




The remote GitHub repository is created.

Step 2: Create and execute a new workflow file

2.1 Navigate to the **Actions** tab and click on **set up a workflow yourself** to create a **.github/workflows** directory



2.2 Create a new workflow file **basic-workflow.yml** with the below code, then click on **Commit changes**:

```
name: GitHub Actions Demo
run-name: Testing out GitHub Actions
on: [push]
jobs:
  Basic-Workflow:
    runs-on: ubuntu-latest
    steps:
      - run: echo " Job is executing as part of Basic workflow"
```

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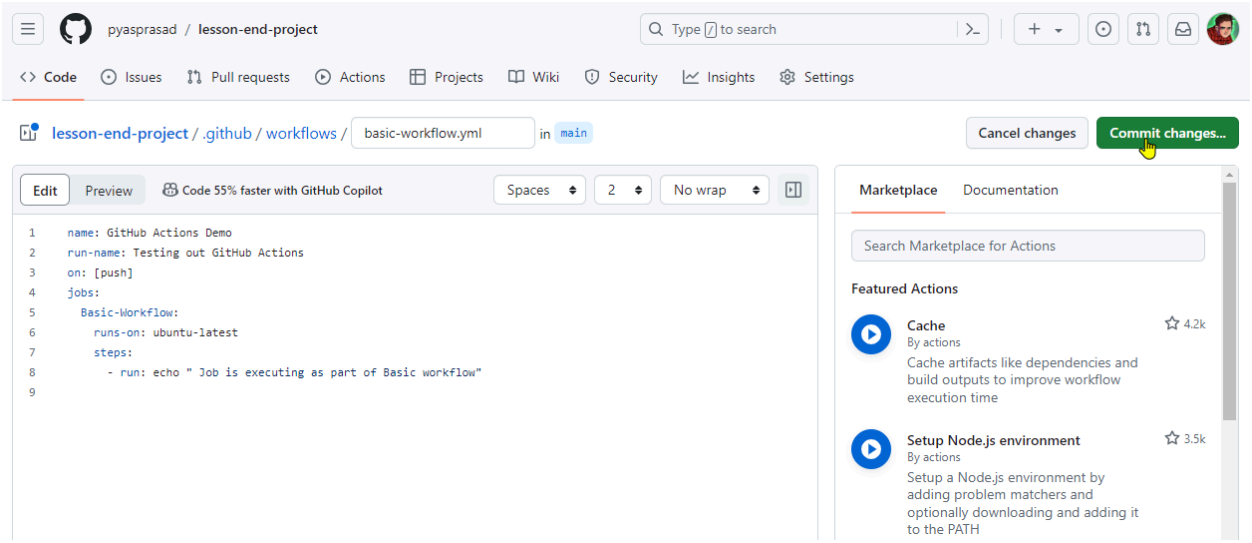
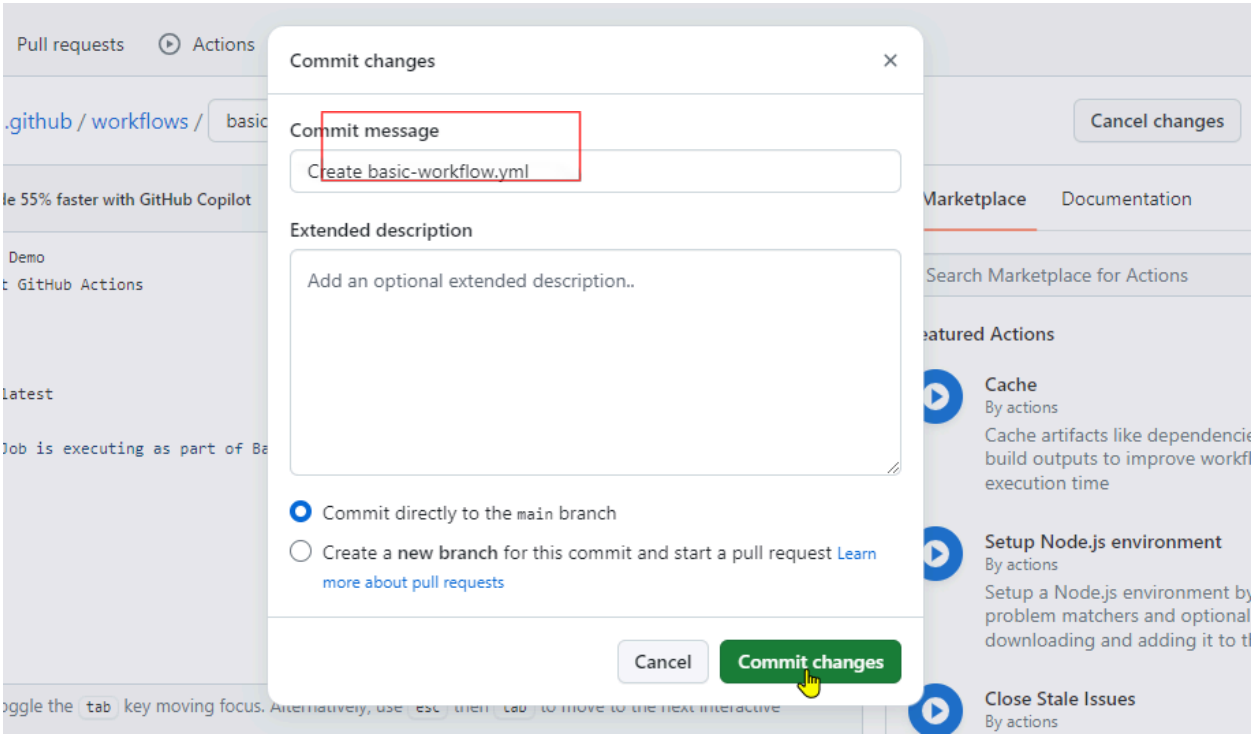


2.3 Add the **Commit message** as **Create basic-workflow.yml** and then click on **Commit changes** to save the workflow file in the code repository



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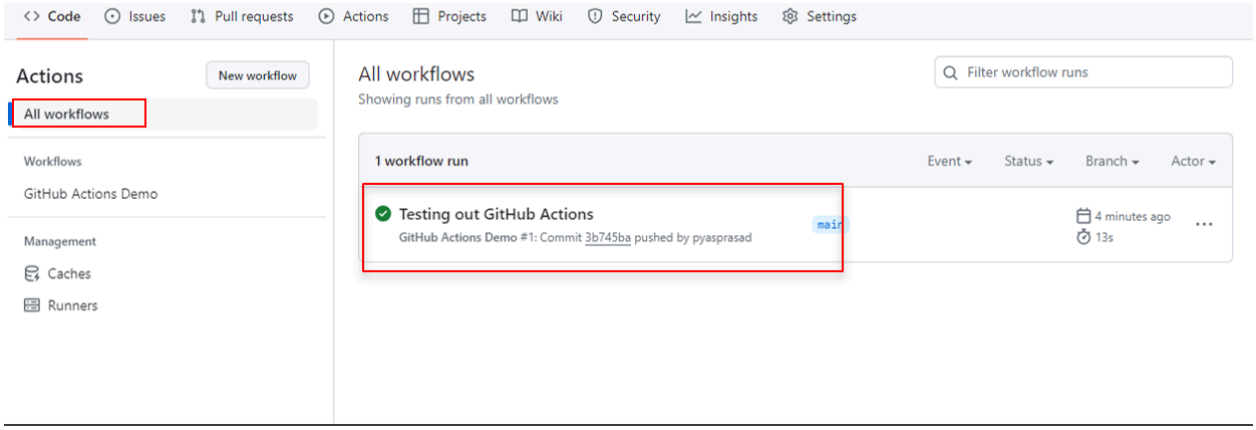
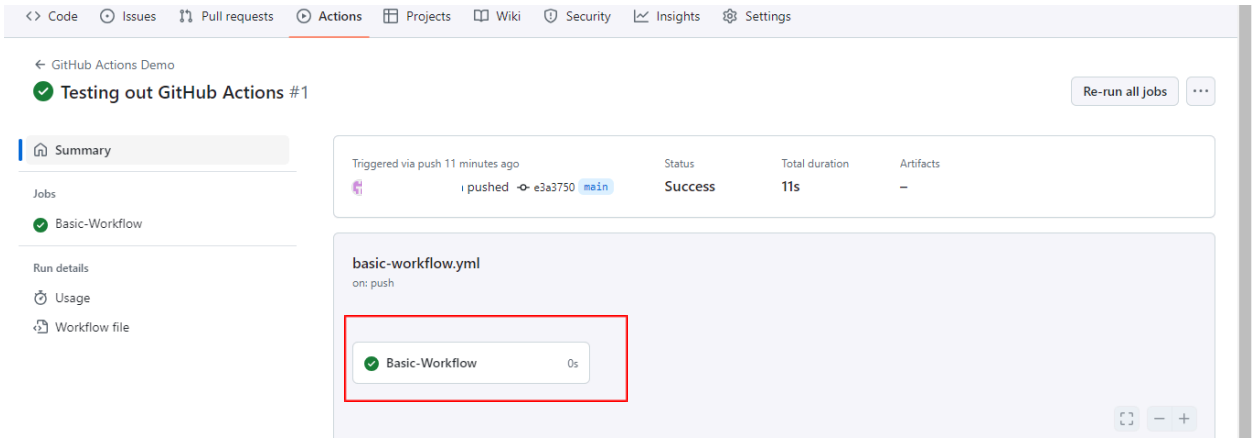
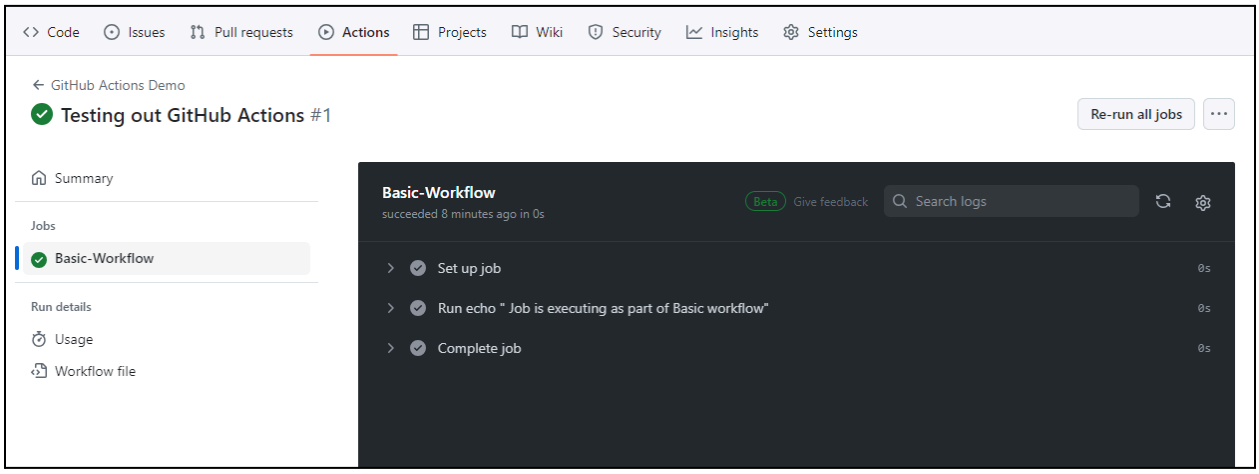
2.4 Navigate to the **Actions** tab to access the workflow execution, and under **All workflows,** click on the **Testing out GitHub Actions**



2.5 Click on the **Basic-Workflow** to view the job execution details



The **Basic-Workflow** screen will appear as shown below:



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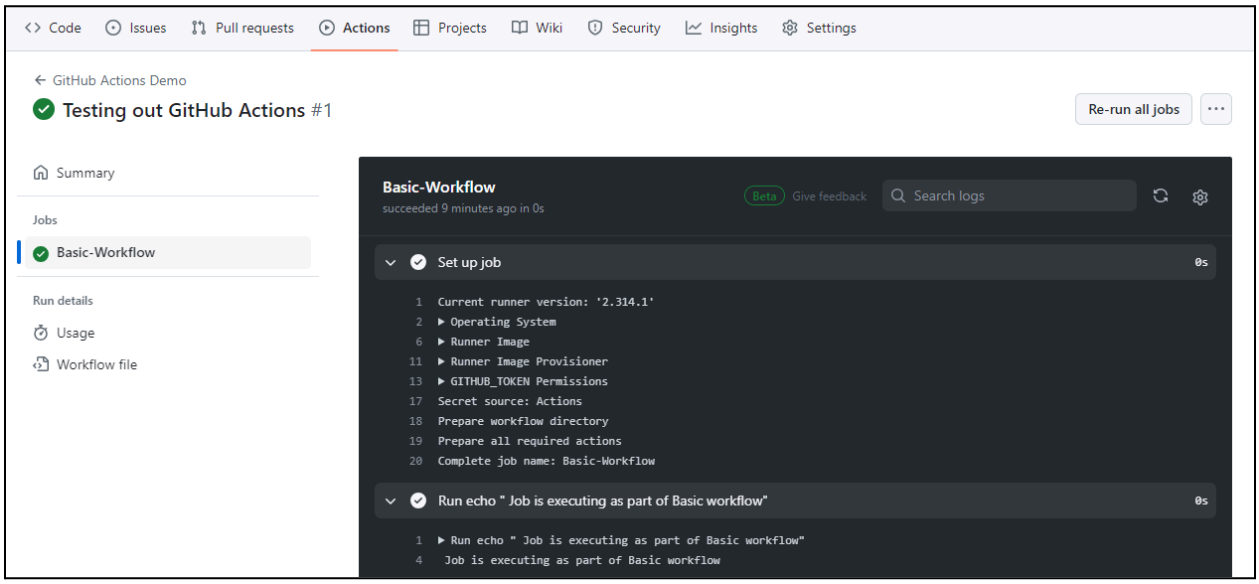
2.6 Expand the output under the **Basic-Workflow**



By following these steps, you have successfully created and executed a basic GitHub Actions workflow for automated testing and deployment, enhancing the efficiency and reliability of project development processes.