

## Lab 2: Equality, Relational, and Conditional Operators

### Setup

1. Open your lab repository using bitbucket and click the “Compare” button in the navigation panel. Then click the “Compare” button in the Compare page as shown in below.

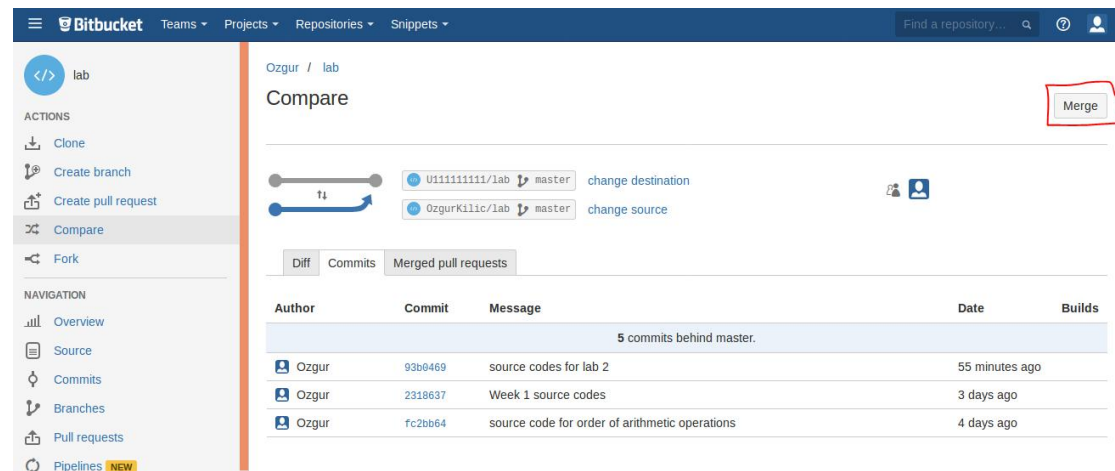
The screenshot shows the Bitbucket interface for a repository named 'lab' under the user 'Ozgur'. In the left sidebar, the 'Compare' button is highlighted with a red circle. In the main content area, the 'Compare' button is also highlighted with a red circle. The compare configuration shows 'OzgurKilic/lab' as the source and 'U111111111/lab' as the destination, both on the 'master' branch. Below the configuration, there is a large graphic with the text 'See what's changed' and a description: 'Easily determine which commits are on the source but not on the destination. Compare branches, tags, and more, within a repository or across forks.'

2. Click the arrows icon to swap the source and destination as shown below.

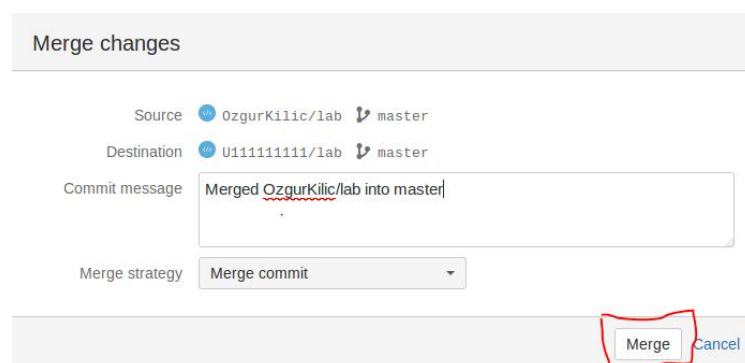
The screenshot shows the Bitbucket interface after clicking the arrows icon to swap the source and destination. The 'Compare' button in the left sidebar is still highlighted. In the main content area, the 'Compare' button is also highlighted. The compare configuration now shows 'U111111111/lab' as the source and 'OzgurKilic/lab' as the destination, both on the 'master' branch. Below the configuration, there are tabs for 'Diff', 'Commits', and 'Merged pull requests'. The 'Commits' tab is selected, showing a list of commits.

Author	Commit	Message
Ozgur	c5ce1cb	semi colon problem resolved
Ozgur	872abea	classname corrected
Ozgur	0f601d1	HelloWorld.java edited online with Bitbucket
Ozgur	4f66fee	Me.java edited online with Bitbucket
Ozgur	ca67067	Initial commit

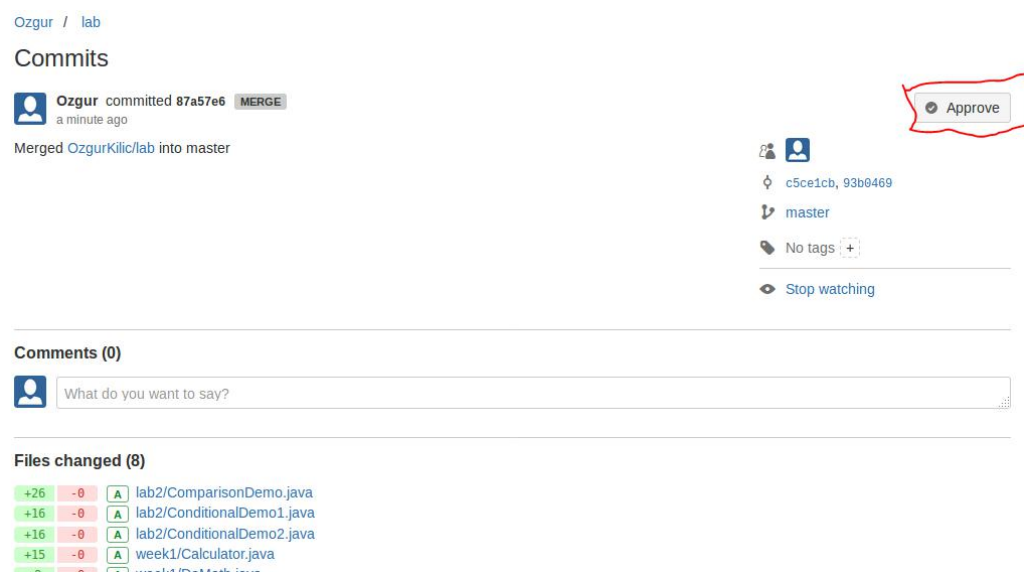
3. Click the “Merge” button on the right hand side as shown below.



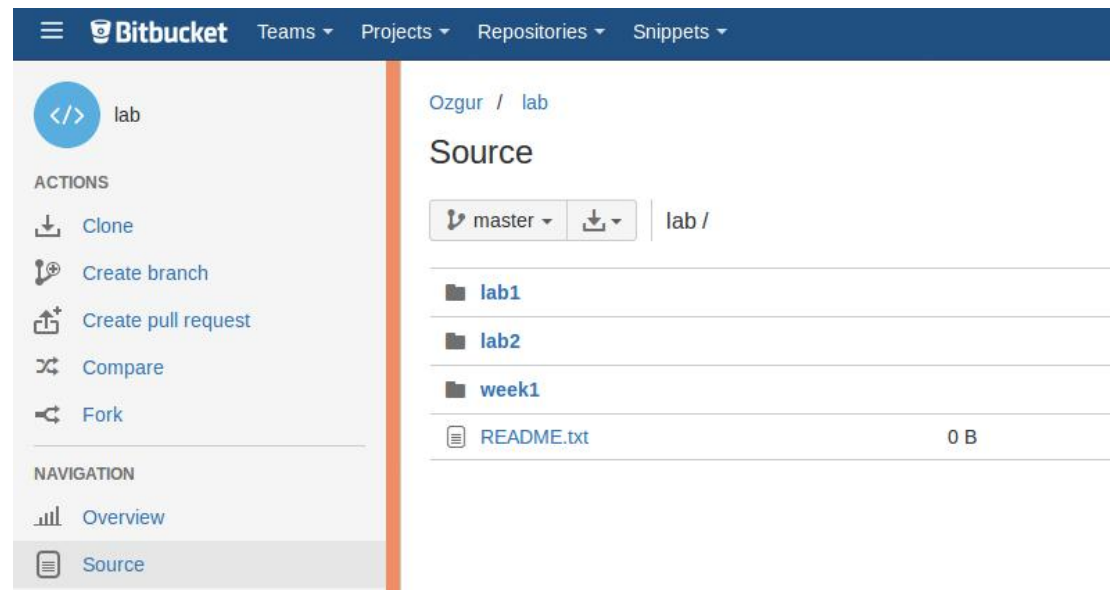
4. Click the “Merge” button in the dialog box.



5. Click the “Approve” button as shown below.



- Click the “Source” button of your repository, you should see two new folders “lab2” and “week1”.



- In command line, change directory to lab directory which was created after cloning your repository. If you haven't cloned your repository, you should clone it as described in previous lab.
- Execute the following command in the lab directory.
  - git pull
- Change directory to lab2

## ***Exercise 1 : ComparisonDemo***

- Inside the lab2 open the file ComparisonDemo.java
- Open the file in the text Editor.
- Read the code and try to find out what will be printed if you execute the code.
- Save, compile and execute the ComparisonDemo and check your answer.
- Assign 2 to variable value1 in its declaration (int value1 = 2;) and try to find out what will be printed if you execute the code.
- Save, compile and execute the ComparisonDemo and check your answer.
- Now assign 3 to variable value1 in its declaration (int value1 = 3;) and try to find out what will be printed if you execute the code.
- Save, compile and execute the ComparisonDemo and check your answer.

## ***Exercise 2 : ConditionalDemo1***

- Inside the lab2 open the file ConditionalDemo1.java
- Open the file in the text Editor.
- Read the code and try to find out what will be printed if you execute the code.
- Save, compile and execute the ConditionalDemo1 and check your answer.

5. Assign 3 to variable value2 in its declaration (`int value2 = 3;`) and try to find out what will be printed if you execute the code.
6. Save, compile and execute the ComparisonDemo1 and check your answer.

### ***Exercise 3 : ConditionalDemo2***

1. Inside the lab2 open the file ConditionalDemo2.java
2. Open the file in the text Editor.
3. Read the code and try to find out what will be printed if you execute the code.
4. Save, compile and execute the ConditionalDemo2 and check your answer.
5. Assign the expression `value1 > value2` to boolean variable someCondition in its declaration (**`boolean someCondition = value1 > value2;`**) and try to find out what will be printed if you execute the code.
6. Save, compile and execute the ConditionalDemo2 and check your answer.

### ***Exercise 4 : Passing Command Line Arguments***

1. Assign the following expressions to variables value1 and value2 as shown below:
  - a) `int value1= Integer.parseInt(args[0]);`
  - b) `int value1 = Integer.parseInt(args[1]);`
2. Save and compile ConditionalDemo2
3. Execute ConditionalDemo2 as shown below several times;
  - a) `java ConditionalDemo2 3 5`
  - b) `java ConditionalDemo2 3 -5`
  - c) `java ConditionalDemo2 5 5`

### ***Exercise 5 : Find the smallest amongst 3 numbers***

1. Create a file named SmallestDemo.java
2. Implement the main method to find the smallest number among the given 3 arguments
3. Save, compile your code and then test it with the following commands
  - a) `java SmallestDemo 3 5 2`
  - b) `java SmallestDemo 8 4 6`
  - c) `java SmallestDemo 5 7 7`

NOTE: Your lab will **not be graded** if

- Your account name does not have the format described in lab1.pdf
- Your repository name is not lab
- Your files have compilation errors
- You haven't complete the steps described in exercises
- Your added/modified files are not submitted to Bitbucket.
  - You have to add commit and push files as described in lab1.pdf