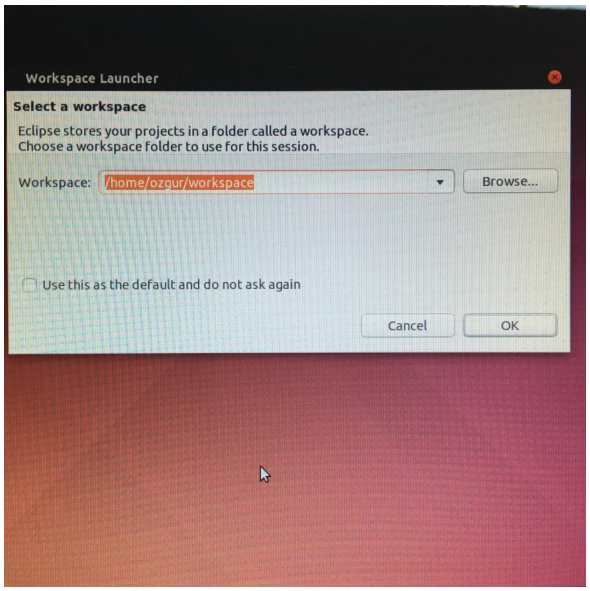
Lab 5: Classes and Objects

Setup: Creating an Eclipse Project for your Repository

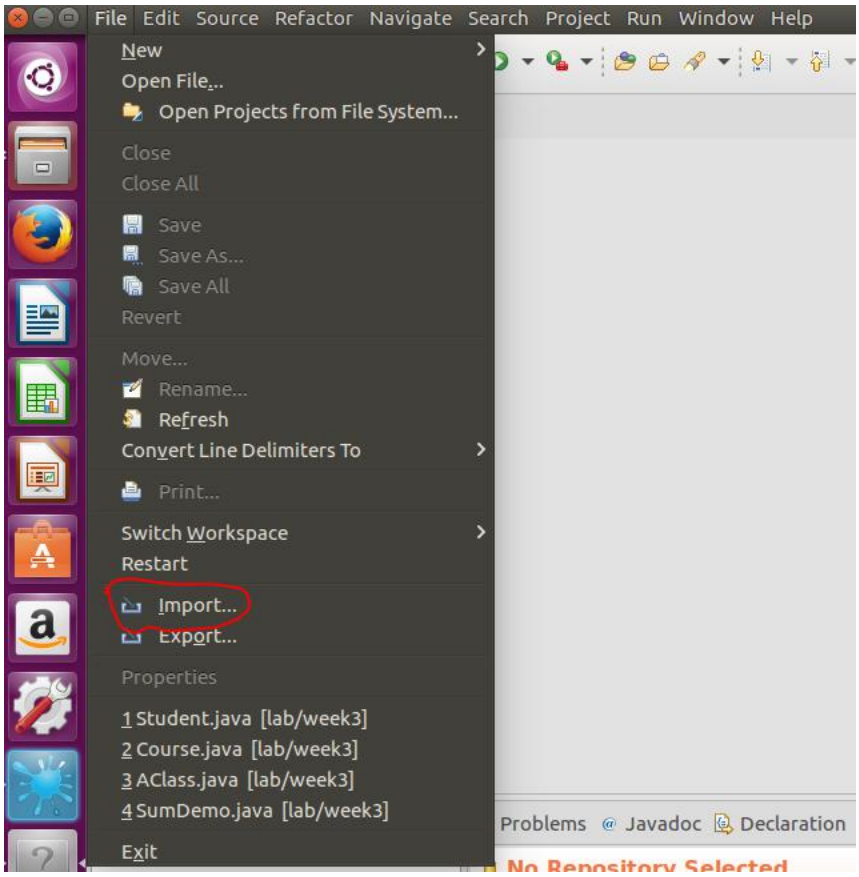
Note 1: If you use your own personal computer, you should install Eclipse latest stable version before starting following steps.

1. Type “Eclipse” in the search bar then you will see the Eclipse icon as shown below. Click on the icon.

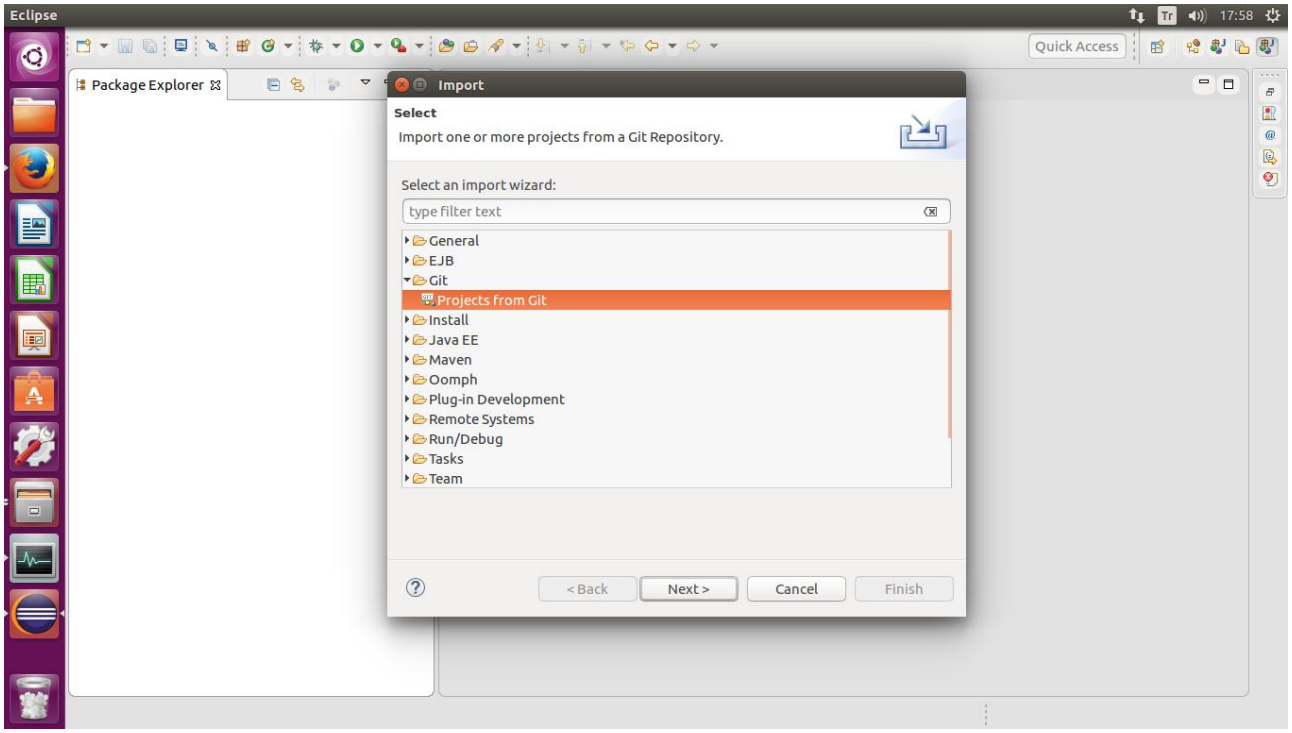
2. Don’t modify the default workspace and Click Ok. This may take some time.



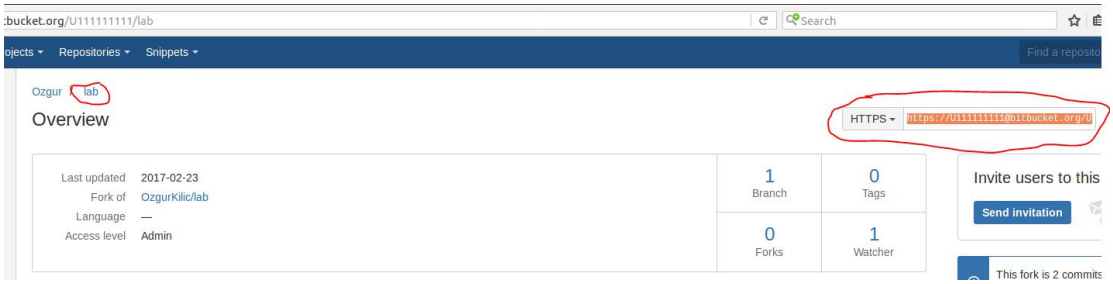
3. When Eclipse opens, click the “Import” menu item on the “File” menu.



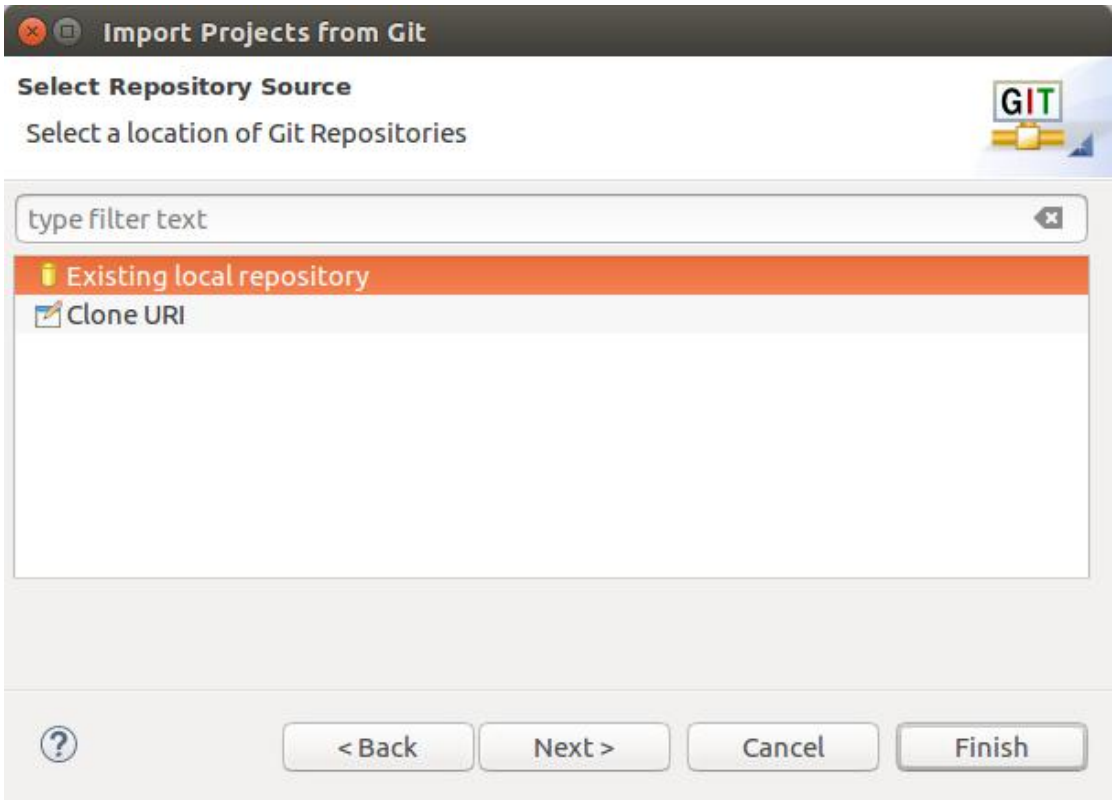
4. Select “Projects from Git” under the Git folder and click “Next”.



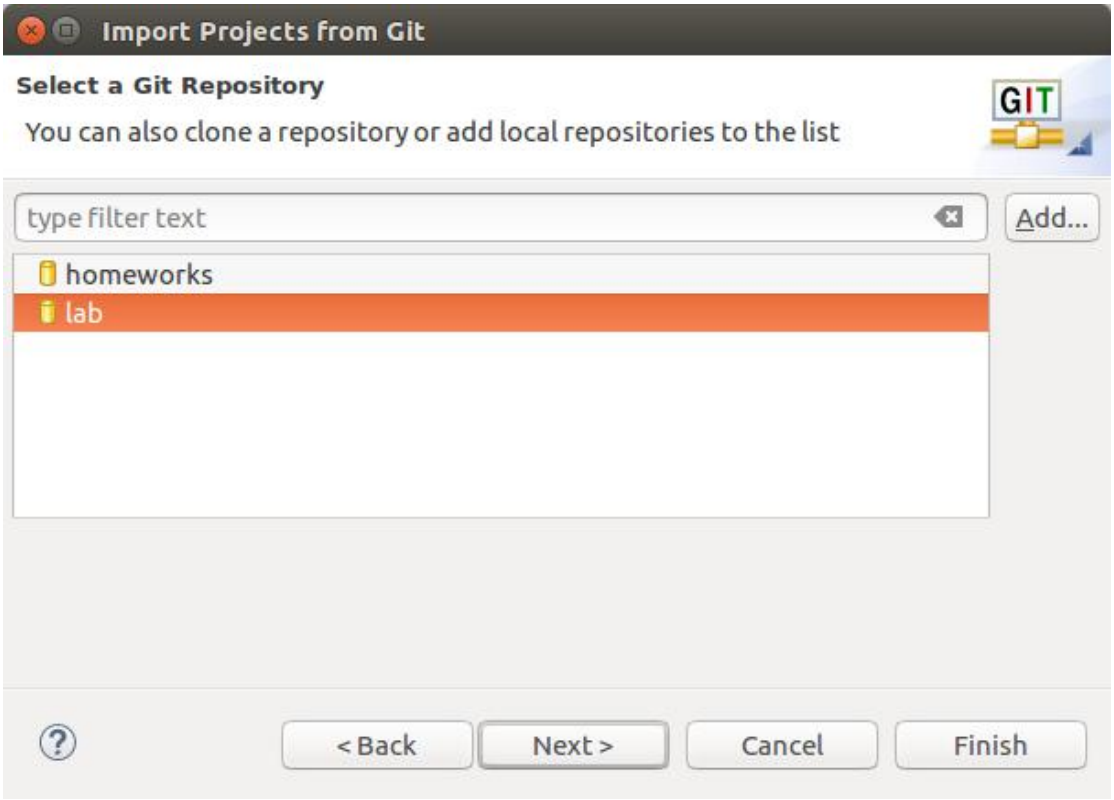
5. Open a browser, log on to your Bitbucket account and copy the URL of your lab repository



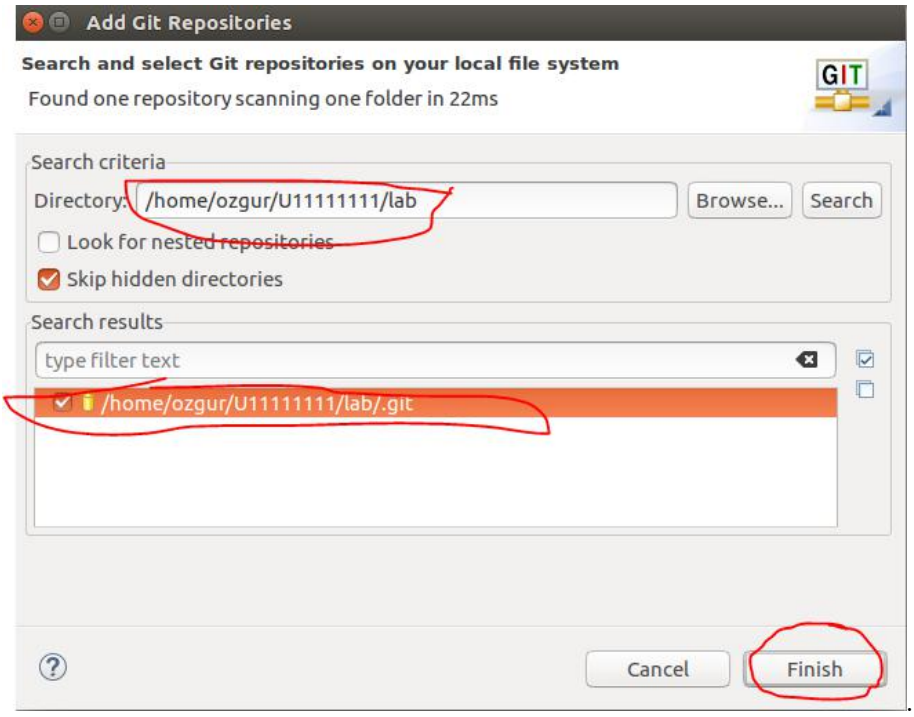
6. Now Select "Existing local repository" in the "Import Projects from Git" dialog and click "Next"



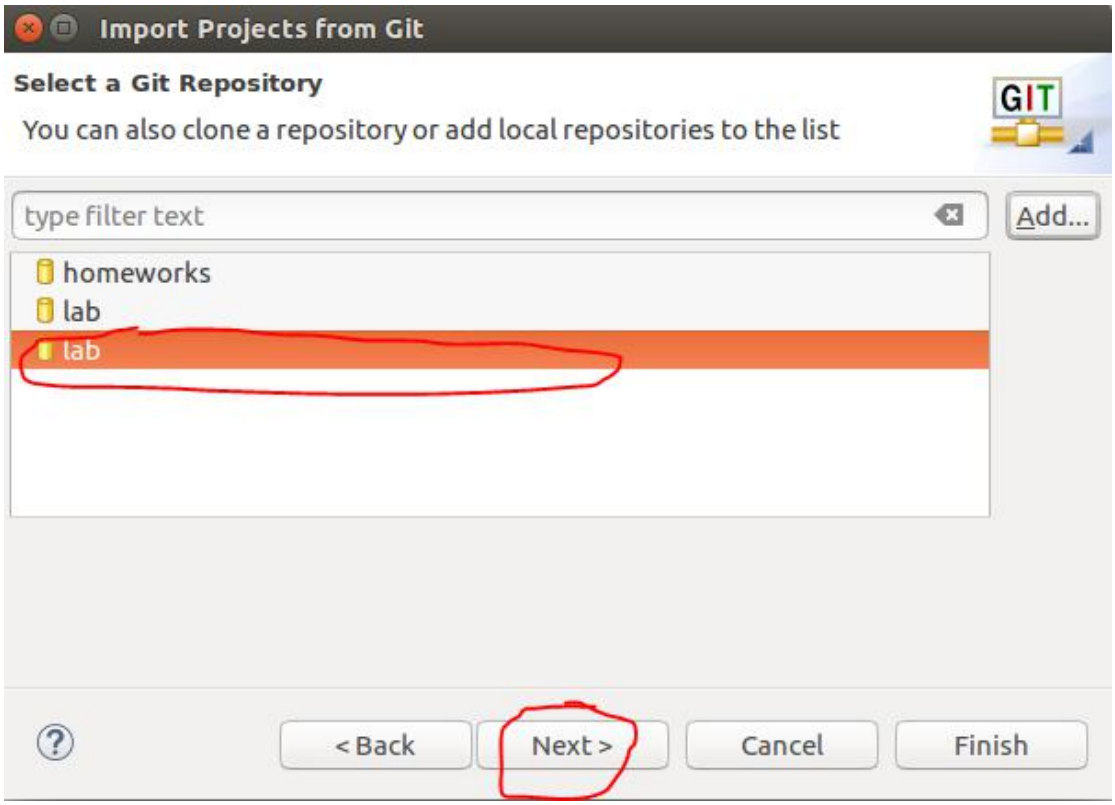
7. Click “add” button if your repository is not listed in the list..



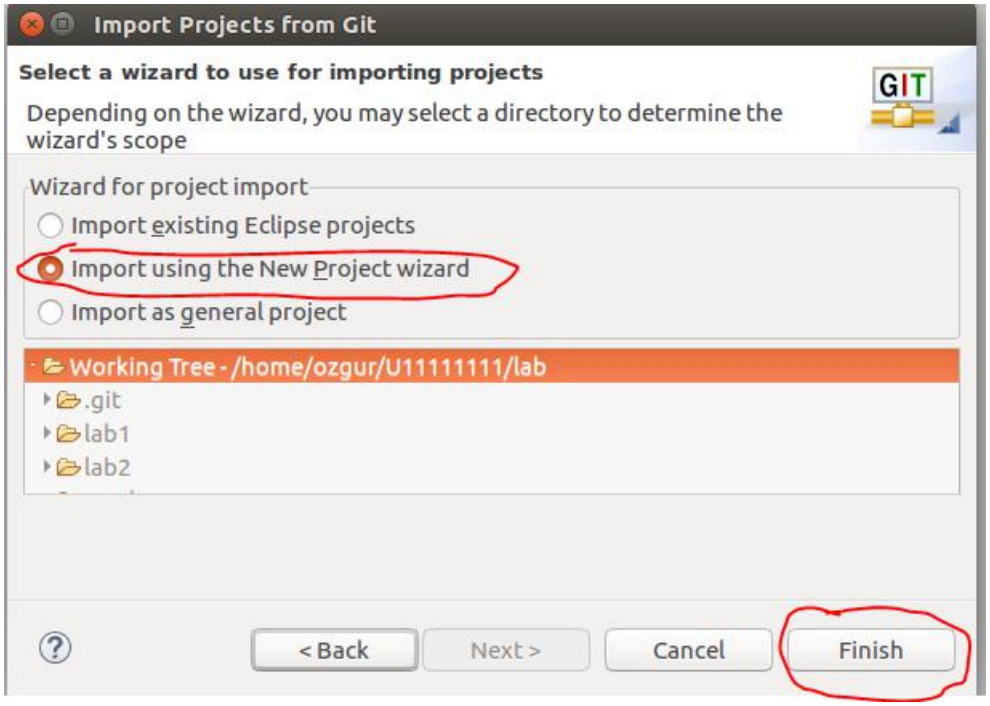
8. Findyour repository location then select it and click “Finish” button



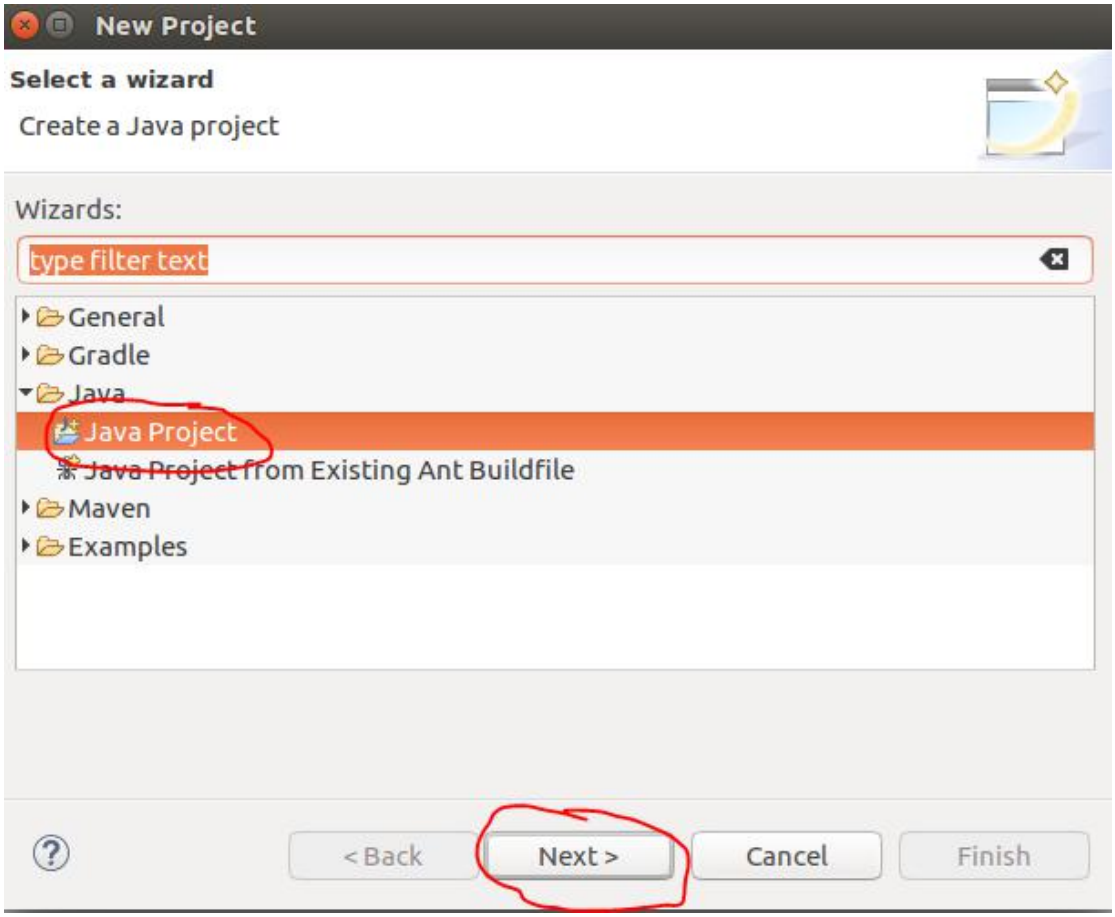
9. After adding your repository, select your resposiory and click “Next”



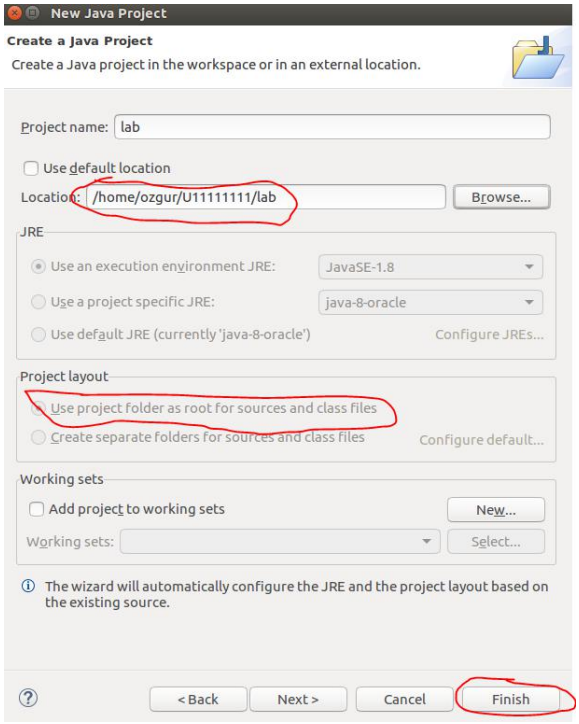
10. Select “Import using the New Project wizard” and click “Finish”



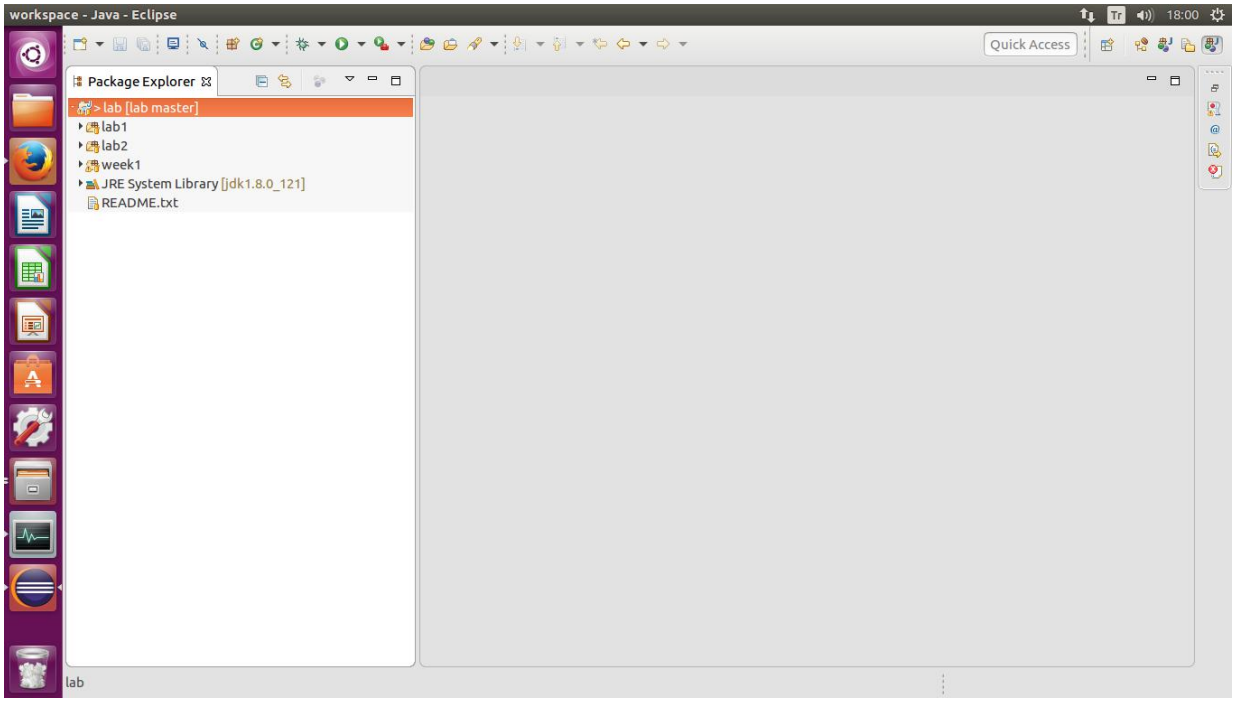
11. Select “Java Project” and click “Next”



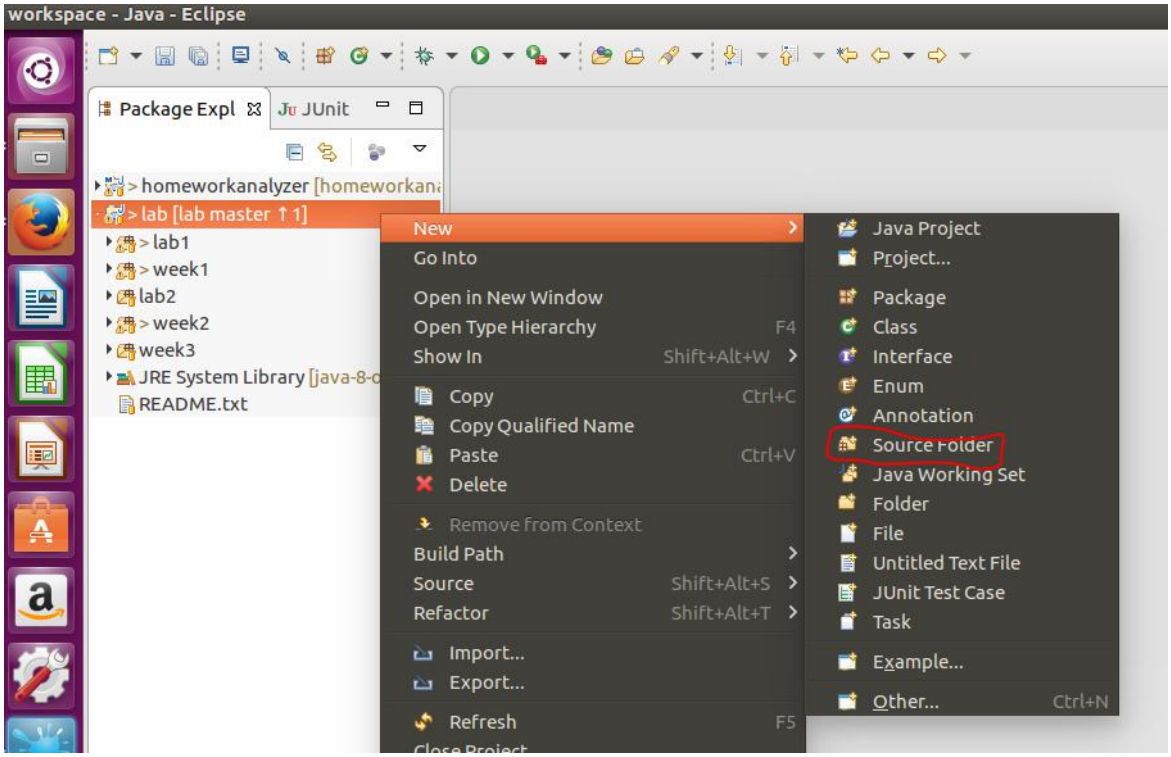
12. Change the location as your repository folder select “Use project folder as root for sources and class files” and Click Finish

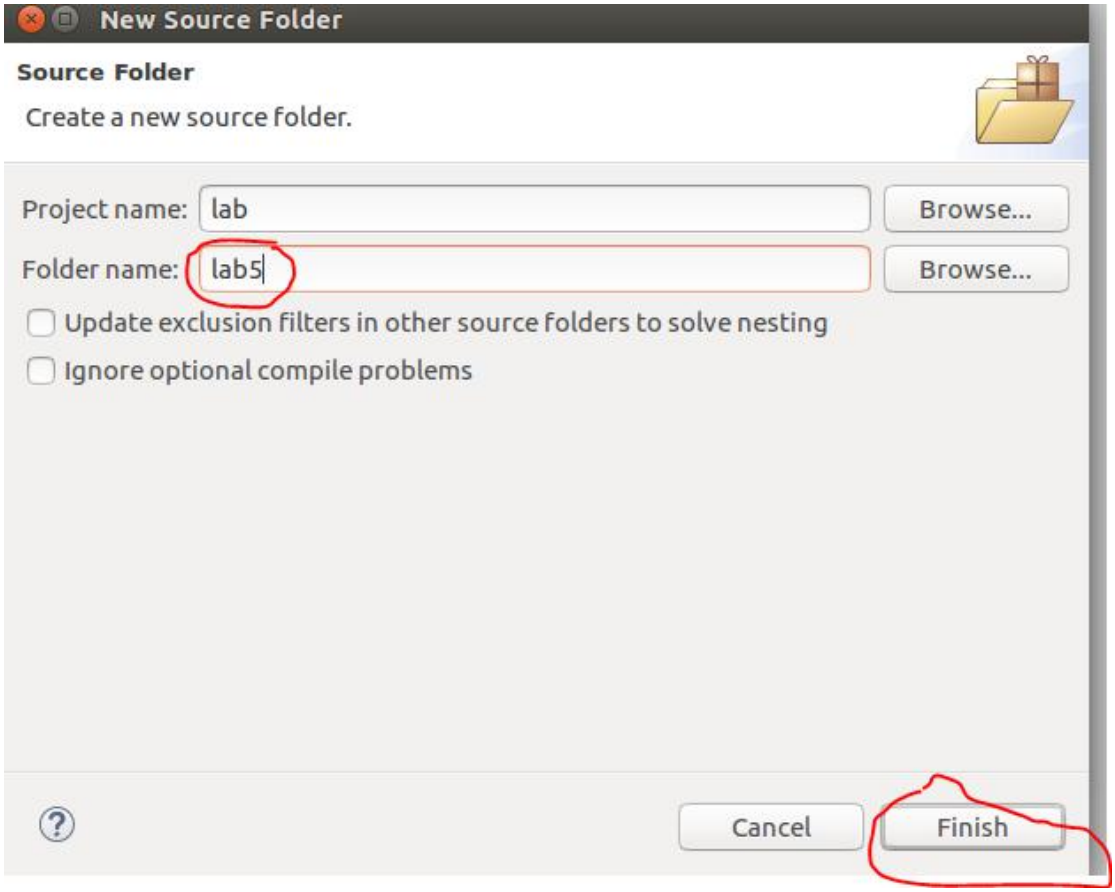


13. You should see your lab folders and contents in the “Package Explorer”.



14. Create a source folder named “lab5”





Exercise 1 : Create a Rectangle Class

1. Create a class named Rectangle
2. Declare two integer typed instance vairables named “sideA” and “sideB”
3. Implement a method named “area()” which returns the area of the rectangle
4. Implement a method named “perimeter()” which returns the perimeter of the rectangle

Exercise 2 : Create a Main Class and Test Rectangle class

1. Create a Main class which has a main method
2. Inside the main method declare a local variable having type Rectangle
3. Create an instance of Rectangle and assign it to the variable.
4. Assign 5 and 6 to the sideA and sideB properties of the instance, respectively.
5. Print the area and perimeter of the instance

Exercise 3 : Create a Circle class

1. Create a class named Circle
2. Declare an integer typed instance vairable named “radius”
3. Implement a method named “area()” which returns the area of the circle
4. Implement a method named “perimeter()” which returns the perimeter of the circle

Exercise 4 : Test Circle class in the Main class

6. Inside the main method declare a local variable having type Circle
7. Create an instance of Circle and assign it to the variable.
8. Assign 10 to radius property of the instance.
9. Print the area and perimeter of the instance.

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