

# Lab Report 1

## Introduction to Computers, Programs, and Java

### Objectives:

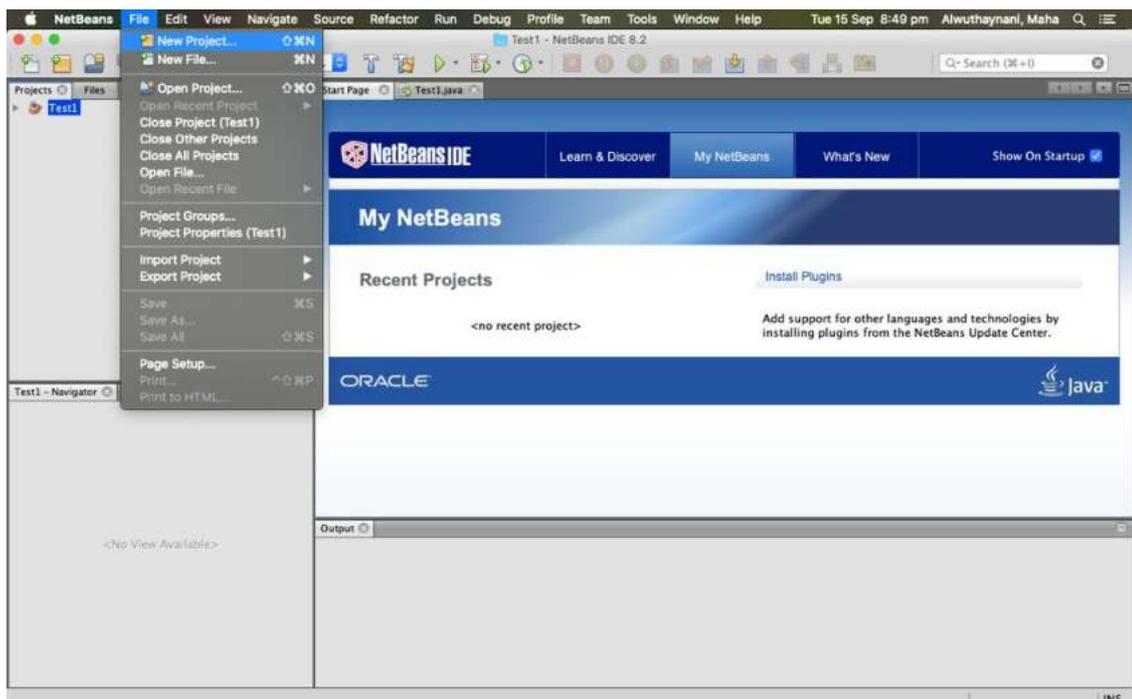
- Downloading and Installing NetBeans IDE
- Getting Started with NetBeans
- Developing Java programs using NetBeans
- Writing, compiling, and running simple Java programs

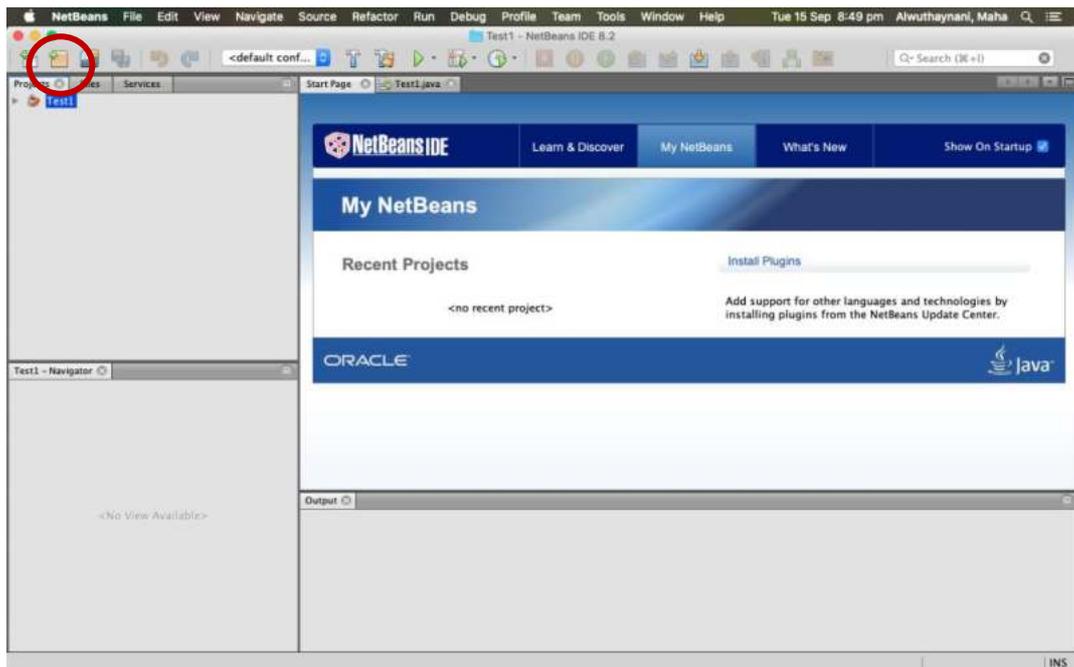
### NetBeans IDE

- Downloading and Installing NetBeans IDE from the following Link:  
<https://www.oracle.com/technetwork/java/javase/downloads/jdk-netbeans-jsp-3413139-esa.html>

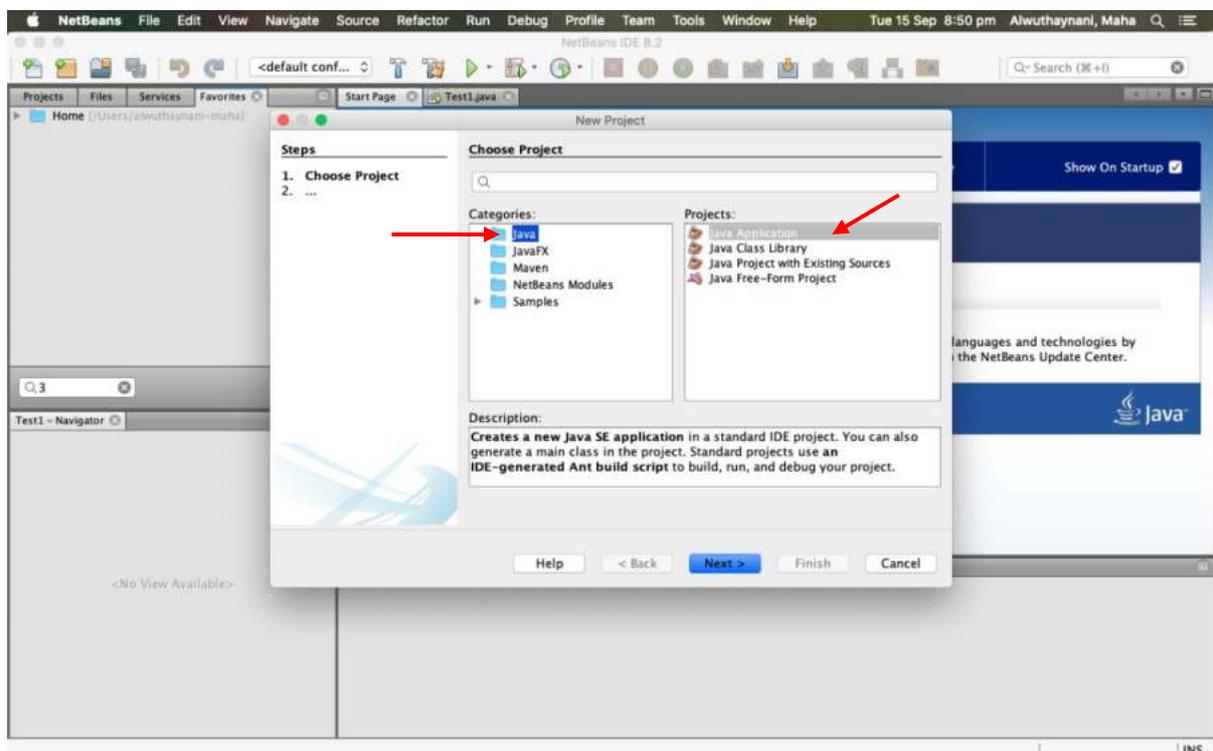
### Getting Started with NetBeans IDE

- To write a program in NetBeans follow these steps:
  1. Start NetBeans IDE.
  2. In the IDE, choose ( File > New Project) or from (New project Icon), as shown in the figures below.

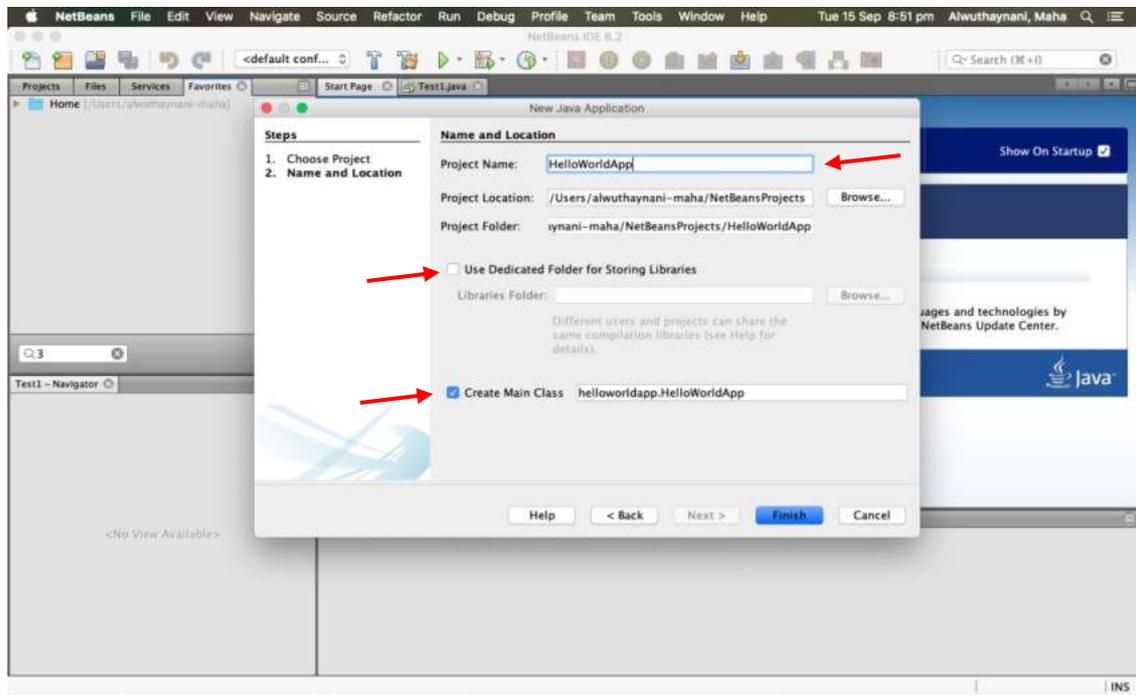




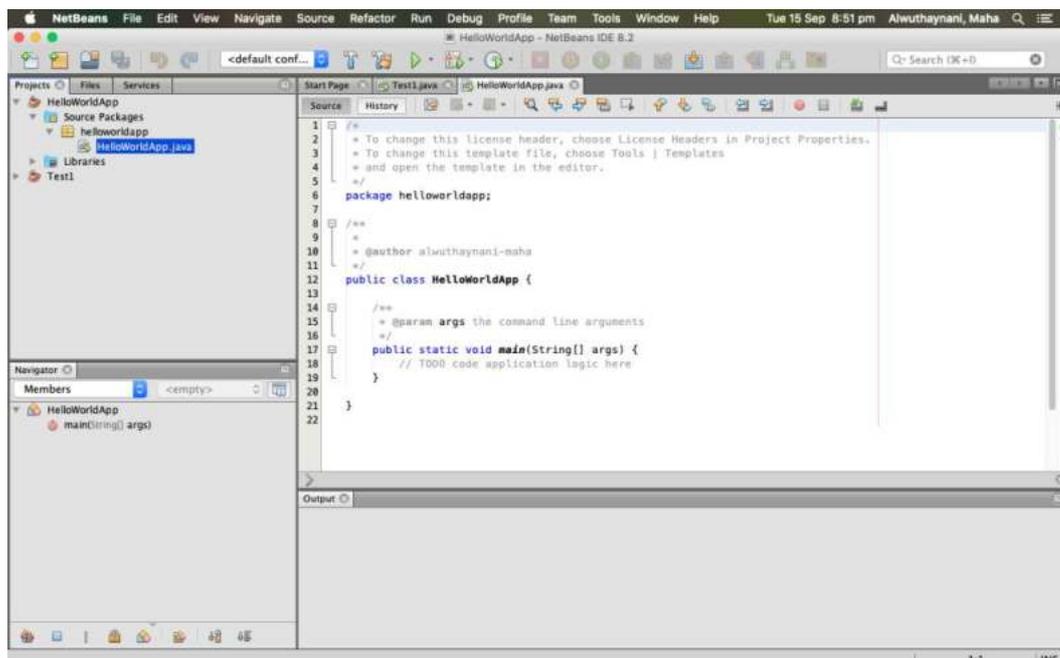
3. In the New Project wizard, expand the Java category and select Java Application as shown in the figure below. Then click Next.



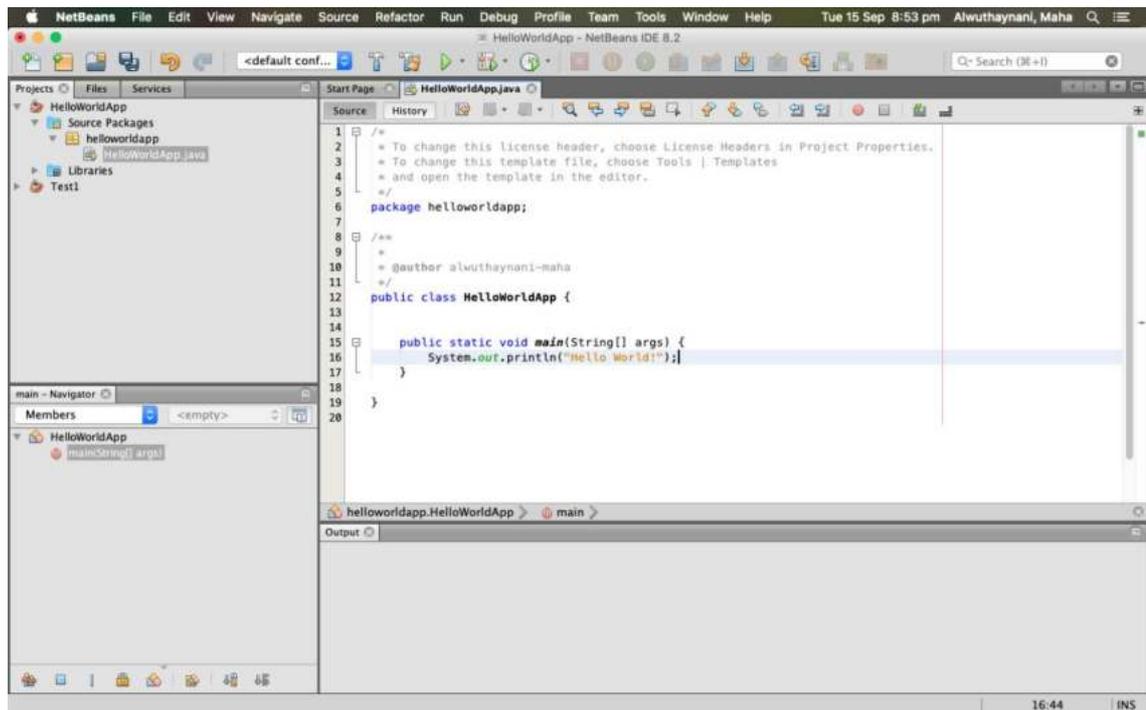
4. In the Name and Location page of the wizard, do the following (as shown in the figure below):
  - In the Project Name field, type HelloWorldApp.
  - Leave the Use Dedicated Folder for Storing Libraries checkbox unselected.
  - In the Create Main Class field, type helloworldapp.HelloWorldApp.
  - Click Finish.



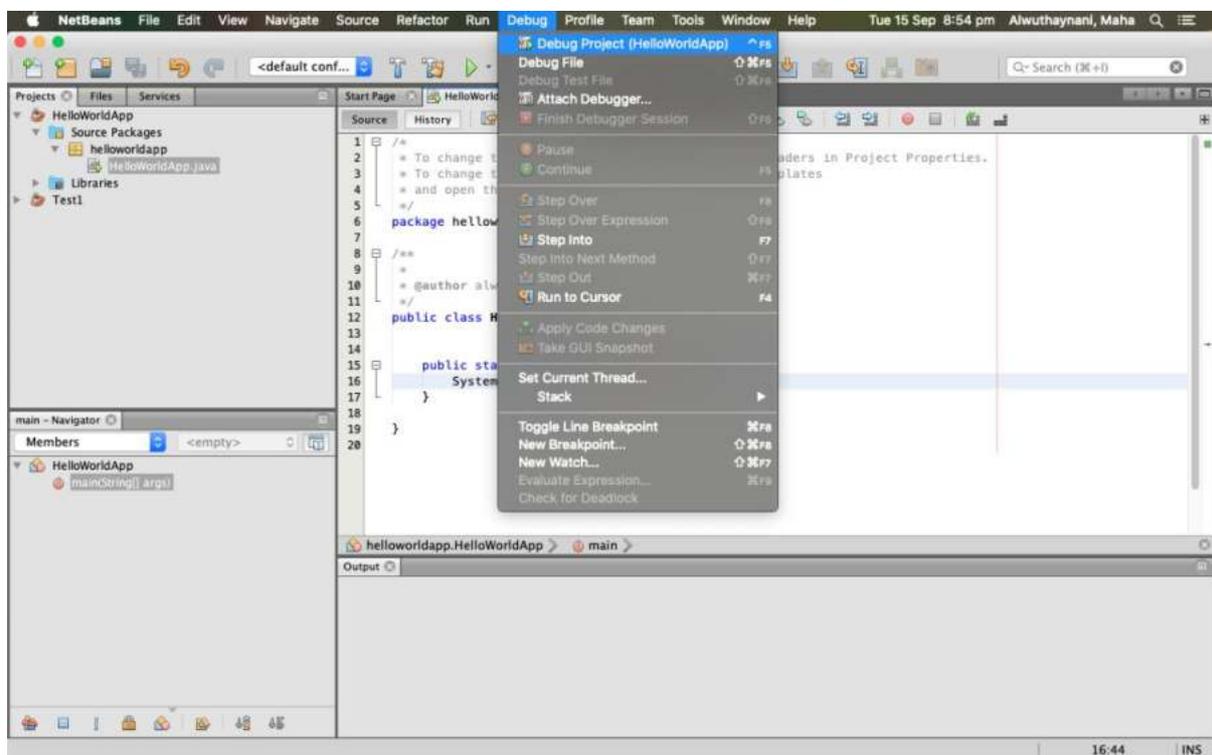
5. The project is created and opened in the IDE. You should see the following components:
  - The Projects window, which contains a tree view of the components of the project, including source files, libraries that your code depends on, and so on.
  - The Source Editor window with a file called HelloWorldApp open.
  - The Navigator window, which you can use to quickly navigate between elements within the selected class.

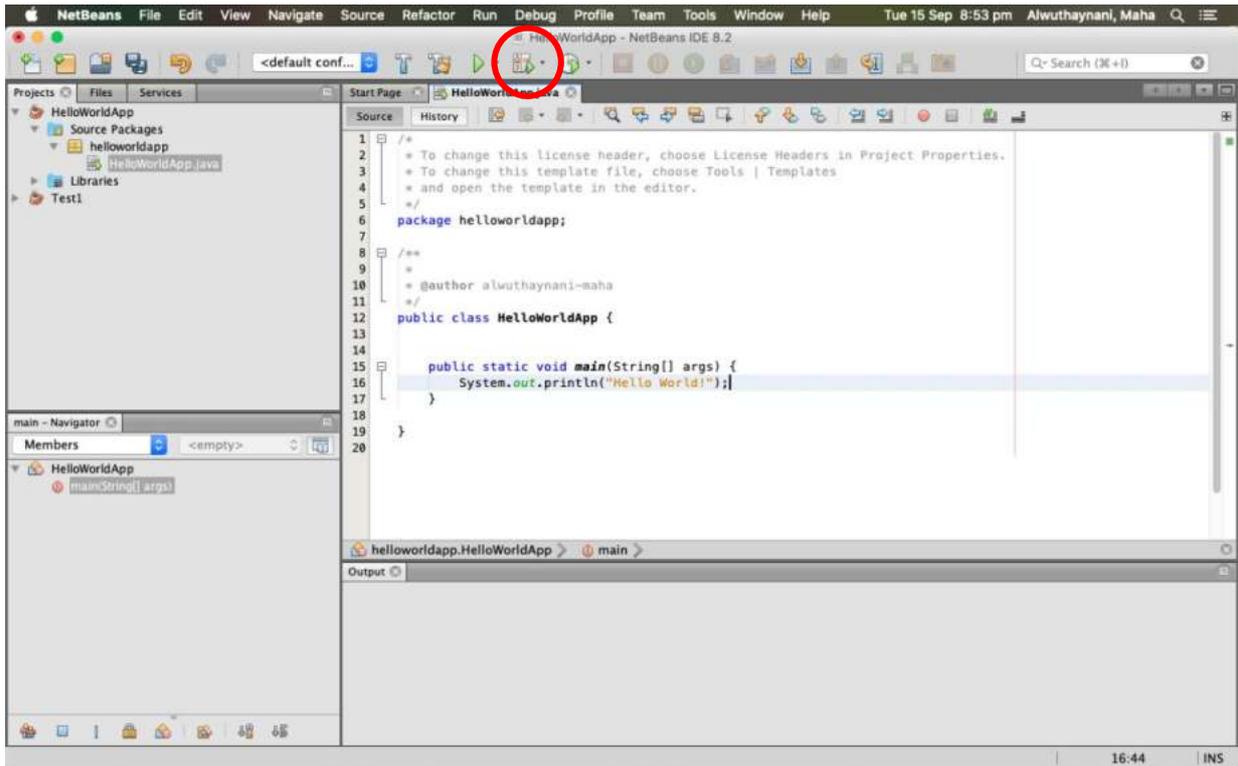


- Enter code statement `System.out.println("Hello World");` (as shown in the figure below)

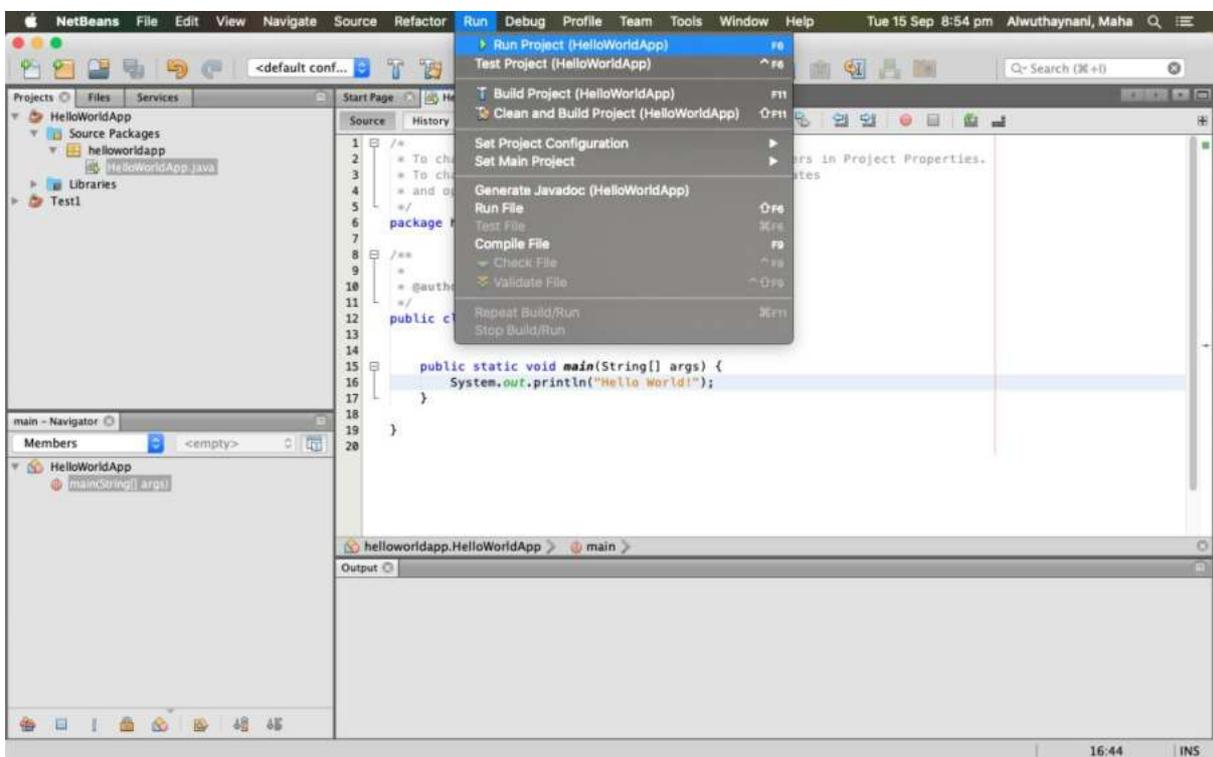


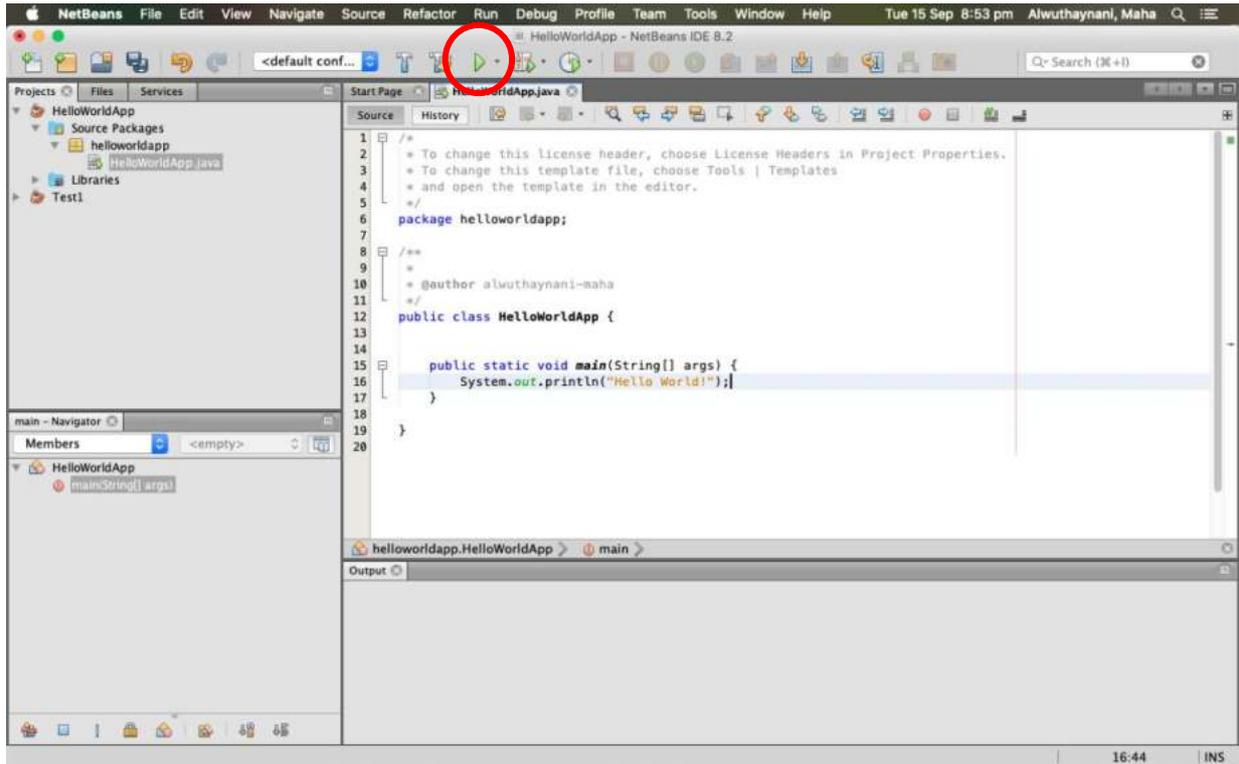
- Save the change by choosing `File > Save` or (Shortcut :CTRL+S).
- Choose ( `Debug > Debug Project`) or from `Debug` icon, (as shown in the figures below)



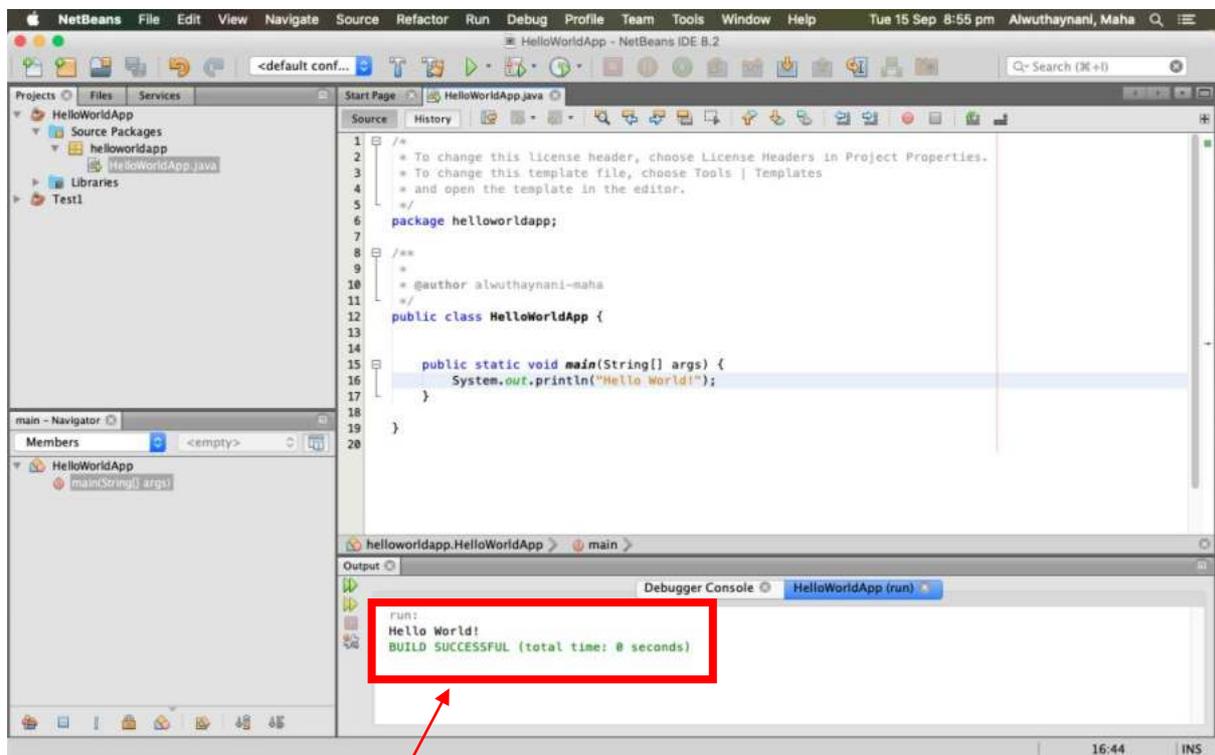


9. To run the program, choose ( Run > Run Project) or from Run icon, (as shown in the figures below)





10. The next figure shows what you should now see.



## Java programs

### Example 1:

```
public class Welcome
{
    public static void main(String[] args)
    {
        System.out.println("Welcome to Java!");
    }
}
```

### Example 2:

```
public class Welcome1 {
    public static void main(String[] args) {
        System.out.println("Programming is fun!");
        System.out.println("Fundamentals First");
        System.out.println("Problem Driven");
    }
}
```

### Example 3:

```
public class ComputeExpression
{
    public static void main(String[] args)
    {
        System.out.println((10.5 + 2 * 3) / (45 - 3.5));
    }
}
```

## Programming Exercises

- Write a simple java program that:
  - Print three messages.
  - Has Single-line comment.
  - Has multi-line comments.