

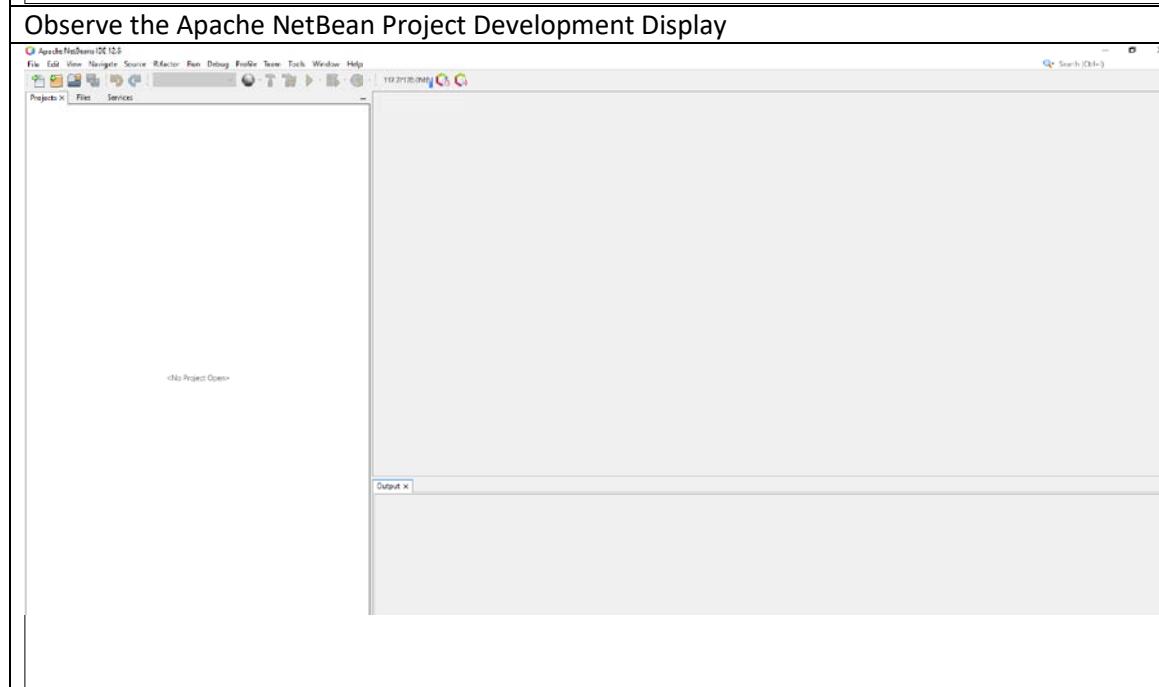
Key Point: A Java program is executed from the **main** method in the class.

Listing 1.1 Welcome.java

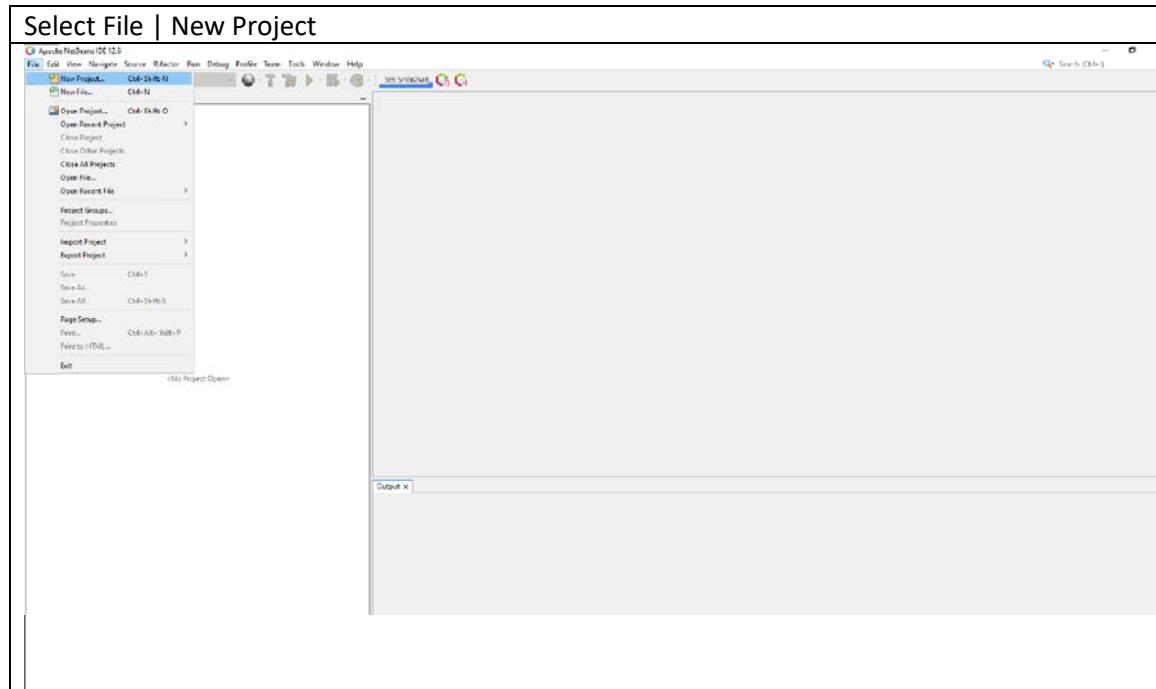
```
1  public class Welcome
2      public static void main(String[] args) {
3          //Display message Welcome to Java! on the console
4          System.out.println("Welcome to Java!");
5      }
6  }
```

Welcome to Java!

Line	Description
1	Line 1 defines a class. Every Java program must have at least one class. Each class has a name. By convention, <i>class names</i> start with an uppercase letter. In this example, the class name is Welcome .
2	Line 2 defines the main method. The program is executed from the main method. A class may contain several methods. The main method is the entry point where the program begins execution. A method is a construct that contains statements. The main method in this program contains the System.out.println statement. This statement displays the string Welcome to Java! on the console (line 4). Every statement in Java ends with a semicolon (;), known as the <i>statement terminator</i> . <i>Reserved words</i> have a specific meaning to the compiler and cannot be used for other purposes in the program. For example, when the compiler sees the word class , it understands that the word after class is the name for the class.
3	Line 3 is a comment. A line comment begins with two slashes (//) and is terminated at the end of the line. A block comment begins with /* and ends with */. A block comment can extend over several lines.
	A pair of braces in a program forms a <i>block</i> that groups the program's components. In Java each block begins with an opening brace ({) and ends with a closing brace (}). Blocks can be nested.



Select File | New Project



Apache NetBeans 12.0

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

New Project... Ctrl-Shift-N

New File... Ctrl-N

Open Project... Ctrl-Shift-O

Open Recent Project...

Close Project

Close Other Projects

Close All Projects

Open File...

Open Recent File...

Project Groups...

Project Properties...

Import Project...

Report Project...

Save Ctrl-S

Save As... Ctrl-Shift-S

Save All Ctrl-Shift-Shift-S

Page Setup...

Print... Ctrl-Alt-Shift-P

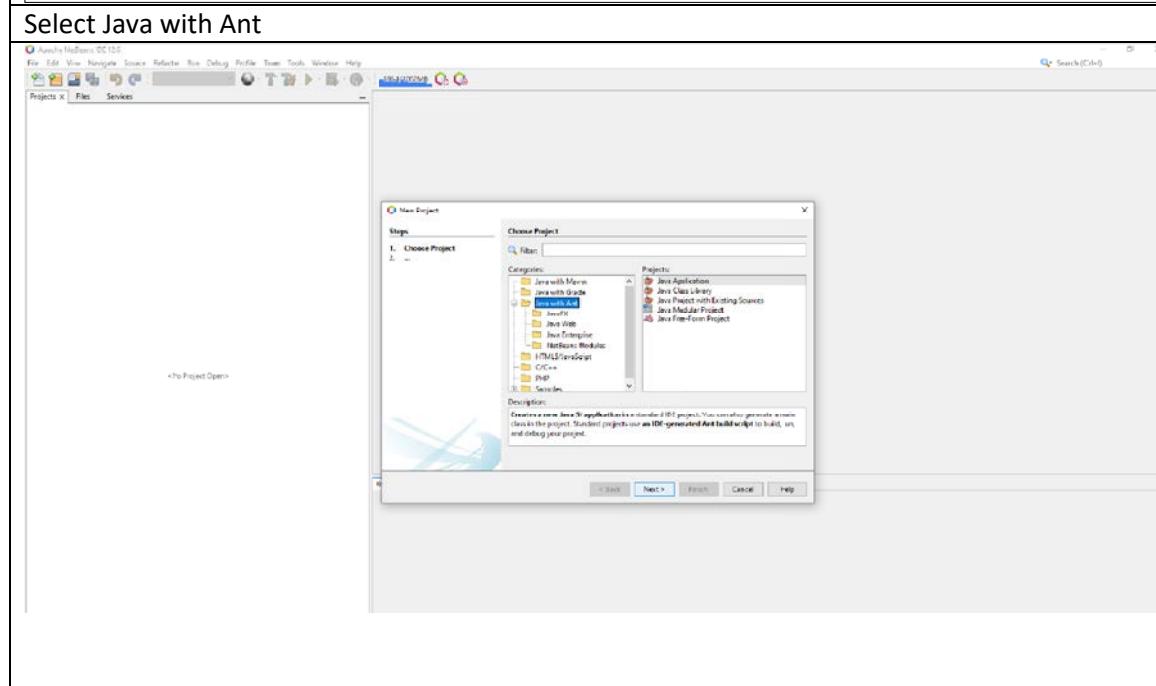
Print to HTML...

Exit

<No Project Open>

Output X

Select Java with Ant



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New Project... Projects X Files Services

Output X

New Project

1. Choose Project

2. ...

Categories:

- Java with Maven
- Java with Gradle
- Java with Ant
- Java
- Java Web
- Java Enterprise
- Java Native Modules
- HTML/JavaScript
- Cloud
- PHP
- Server

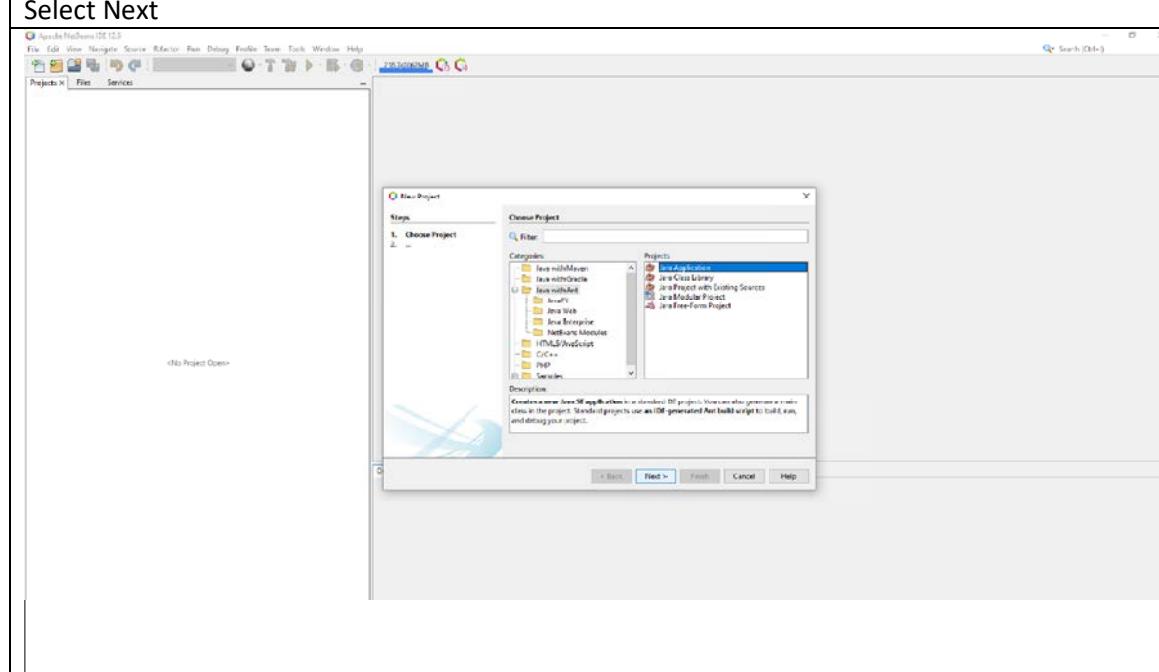
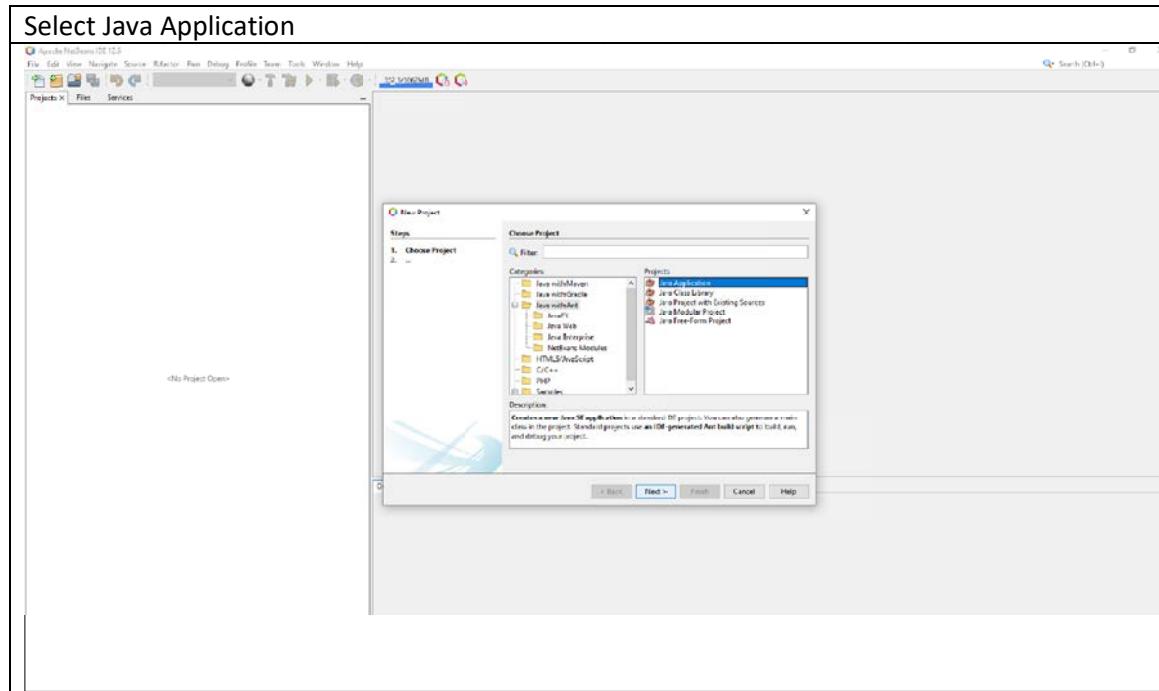
Projects:

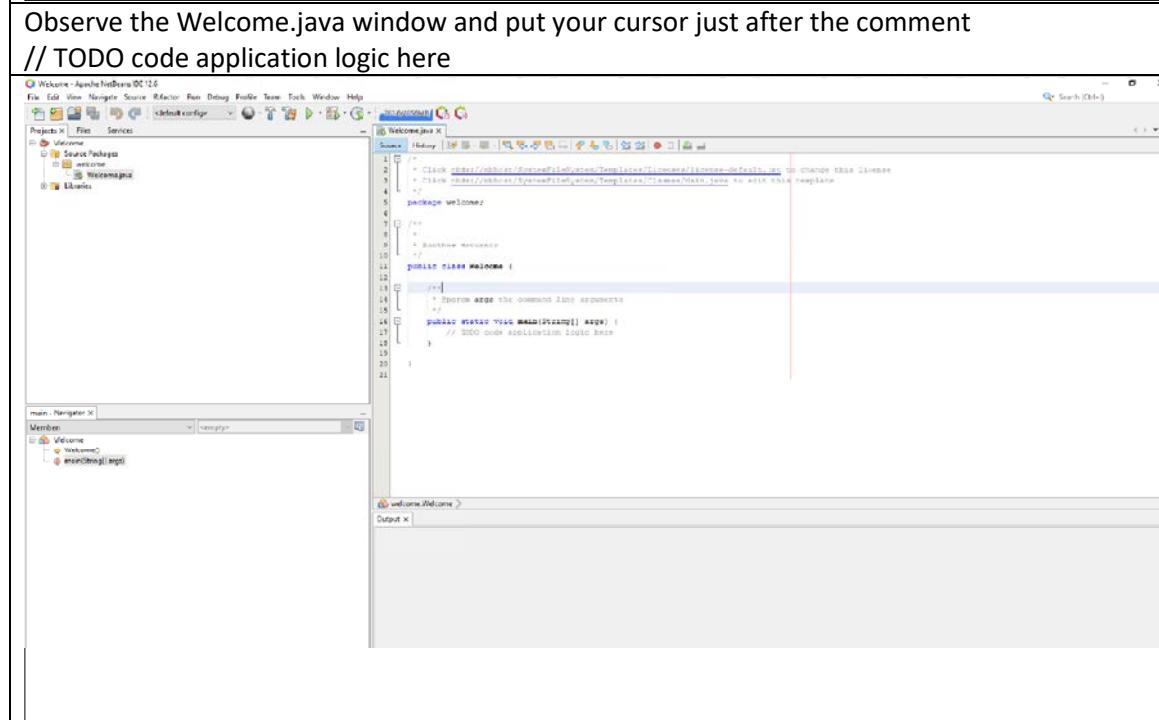
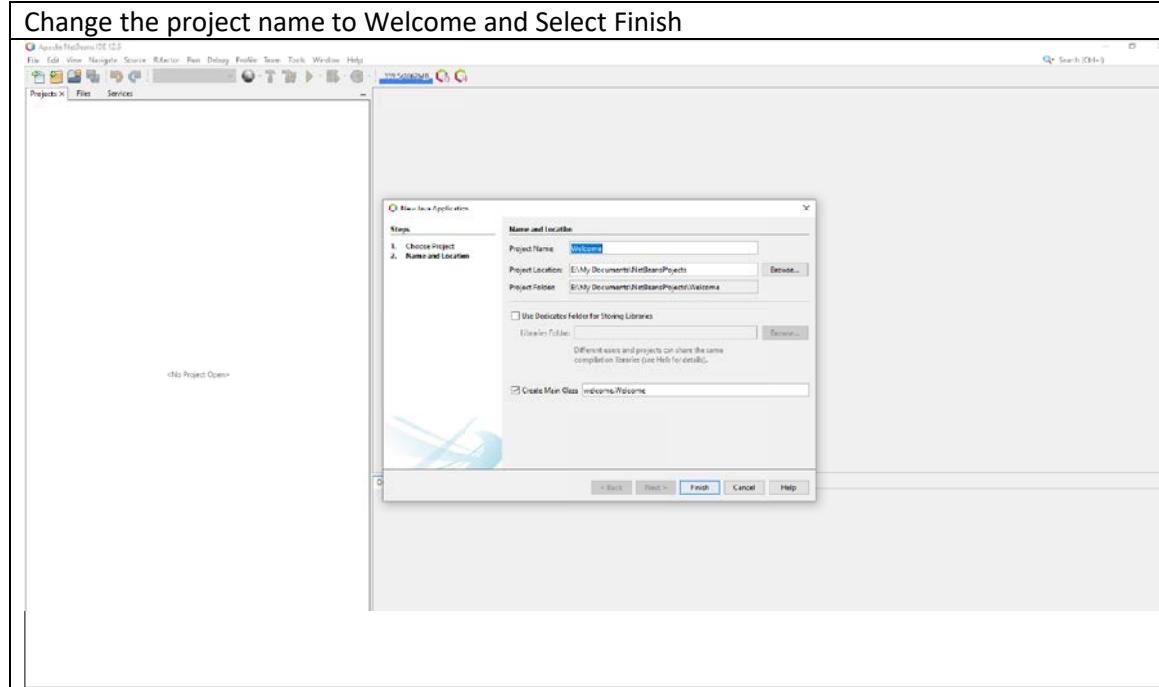
- Java Application
- Java Class Library
- Java Project with Existing Sources
- Java Module Project
- Java Web Project

Description:

Create a new Java application in a standard IDE project. You can also generate a main class in the project. Standard projects use an IDE-generated Ant build script to build, run, and debug your project.

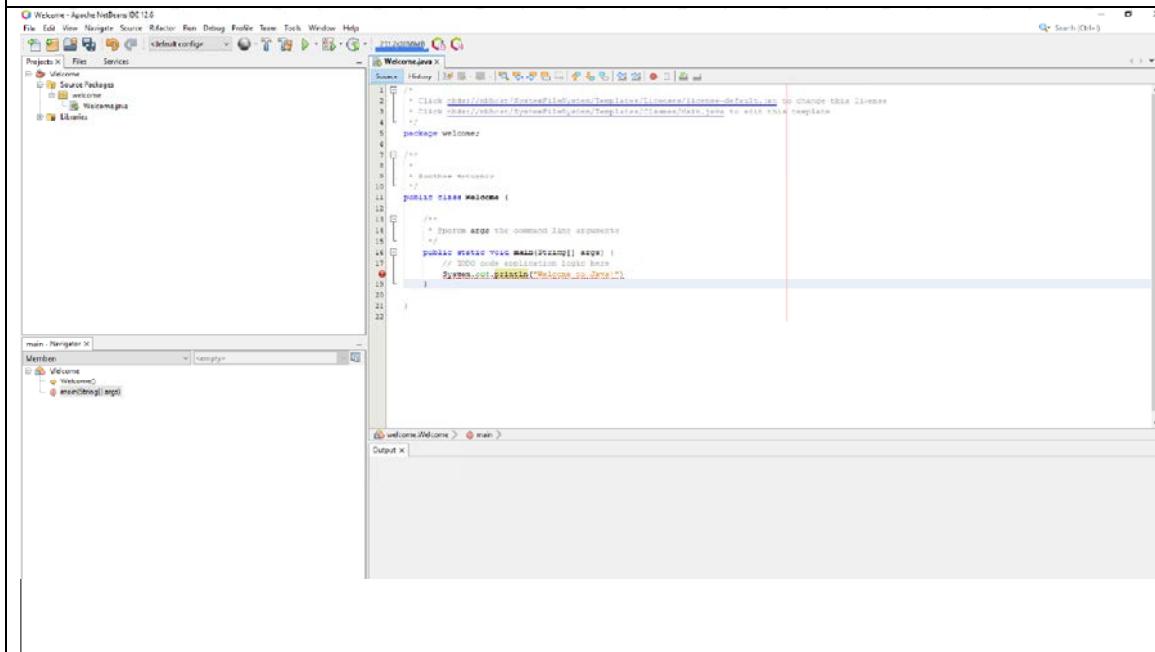
Next > Back < Previous < Back > Next > Finish Cancel Help





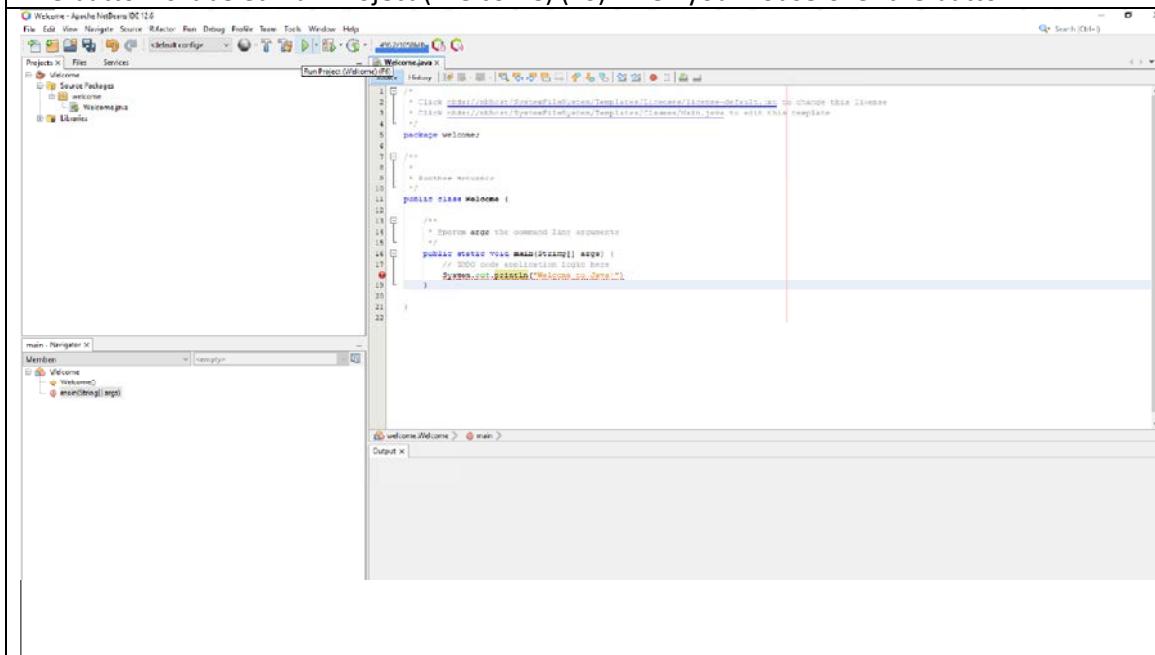
Enter

System.out.println("Welcome to Java");
below the comment.



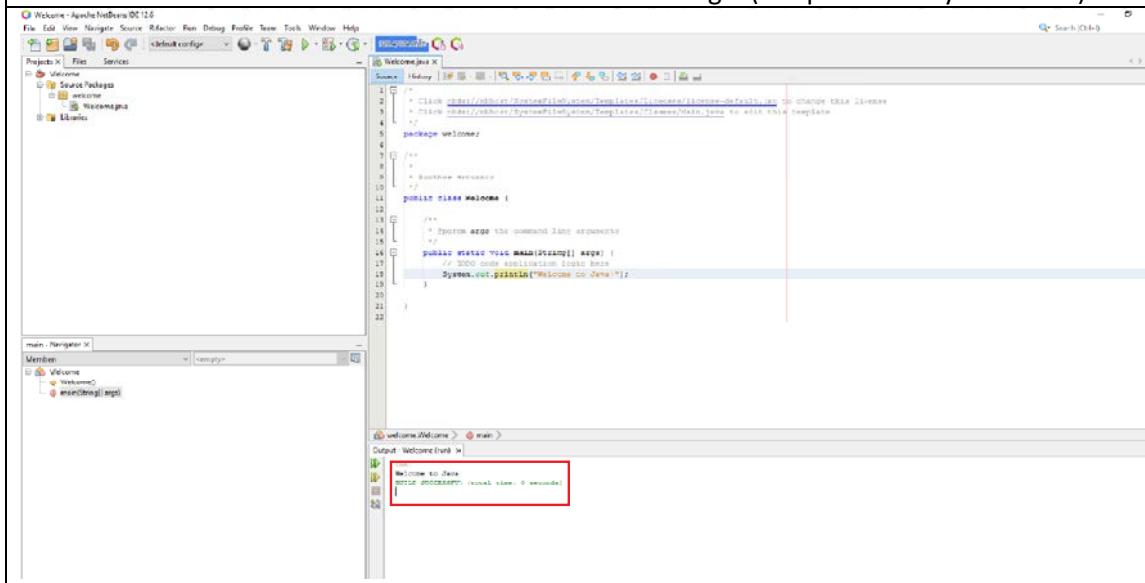
```
1 // Click code://object/SelectedFile/option/Template/ctrl/cancel/license-default.htm to change this license
2 // Click code://object/SelectedFile/option/Template/ctrl/cancel/Math.java to edit this template
3 /*
4  *  Author: Welcome
5  */
6 package welcome;
7
8 /**
9  * Author: Welcome
10 */
11
12 public class Welcome {
13
14     /**
15      * Sparrow args the command line arguments
16     */
17     public static void main(String[] args) {
18         // TODO code execution logic here
19         System.out.println("Welcome to Java");
20     }
21 }
22
```

Depress the green arrow button just below and between the Tools and Window menu items
The button is labeled Run Project (Welcome) (F6) when you mouse-over the button



```
1 // Click code://object/SelectedFile/option/Template/ctrl/cancel/license-default.htm to change this license
2 // Click code://object/SelectedFile/option/Template/ctrl/cancel/Math.java to edit this template
3 /*
4  *  Author: Welcome
5  */
6 package welcome;
7
8 /**
9  * Author: Welcome
10 */
11
12 public class Welcome {
13
14     /**
15      * Sparrow args the command line arguments
16     */
17     public static void main(String[] args) {
18         // TODO code execution logic here
19         System.out.println("Welcome to Java");
20     }
21 }
22
```

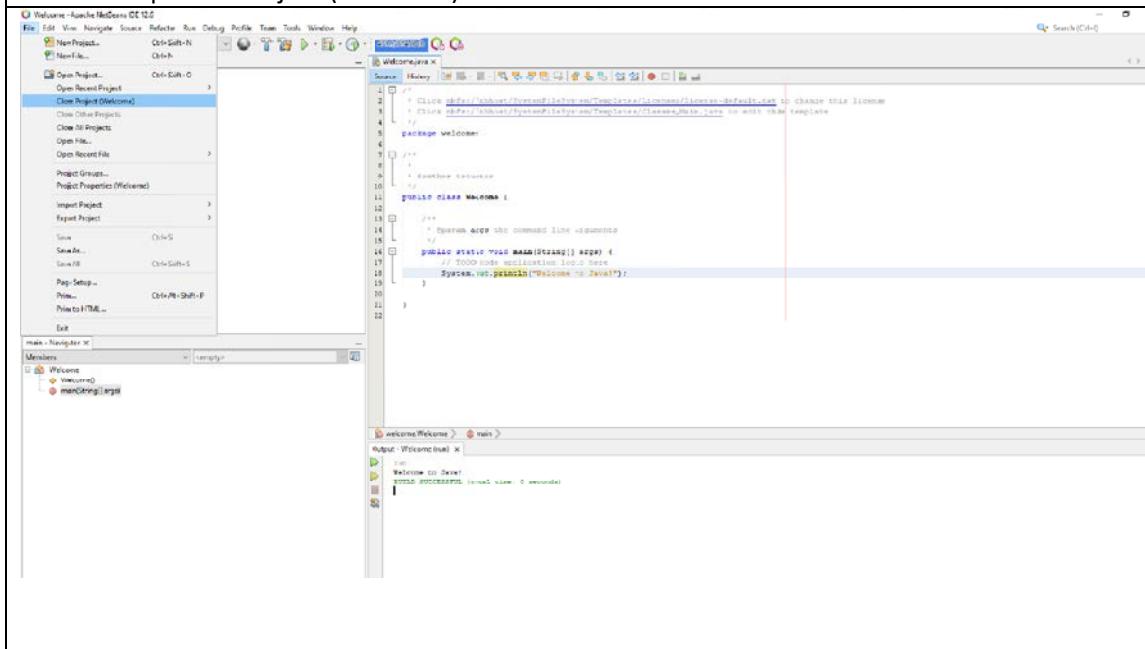
Note the text "Welcome to Java!" that is in the red rectangle (not produced by NetBeans).



```
1  // Click ok for /about/StandardLicenseTemplates/LicenseDefault.lic to change this license
2  // Click ok for /about/StandardLicenseTemplates/LicenseData.lic to edit this template
3
4  package welcome;
5
6  /**
7   * 
8   * Author: 
9   */
10 public class welcome {
11
12     /**
13      * @param args the command line arguments
14     */
15     public static void main(String[] args) {
16         // TODO code application logic here
17         System.out.println("Welcome to Java!");
18     }
19
20 }
21
22
```

Output: Welcome to Java!

Select File | Close Project (Welcome)



```
1  // Click ok for /about/StandardLicenseTemplates/LicenseDefault.lic to change this license
2  // Click ok for /about/StandardLicenseTemplates/LicenseData.lic to edit this template
3
4  package welcome;
5
6  /**
7   * 
8   * Author: 
9   */
10 public class welcome {
11
12     /**
13      * @param args the command line arguments
14     */
15     public static void main(String[] args) {
16         // TODO code application logic here
17         System.out.println("Welcome to Java!");
18     }
19
20 }
21
22
```

Output: Welcome to Java!

Listing 1.2 WelcomeWithThreeMessages.java

```
1  public class WelcomeWithThreeMessages {  
2      public static void main(String[] args) {  
3          System.out.println("Programming is fun!");  
4          System.out.println("Fundamentals First!");  
5          System.out.println("Problem Driven");  
6      }  
7  }
```

Programming is fun!
Fundamentals First
Problem Driven

Listing 1.3 ComputeExpression.java

```
1  public class ComputeExpression  
2      public static void main(String[] args) {  
3          System.out.print("(10.5 + 2 * 3) / (45 - 3.5) = ");  
4          System.out.println((10.5 + 2 * 3) / (45 - 3.5));  
5      }  
6  }
```

(10.5 + 2 * 3) / (45 - 3.5) = 0.39759036144578314