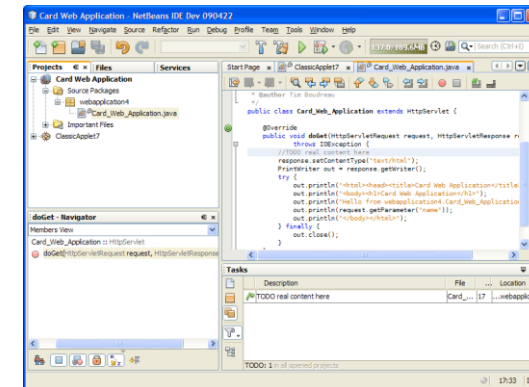
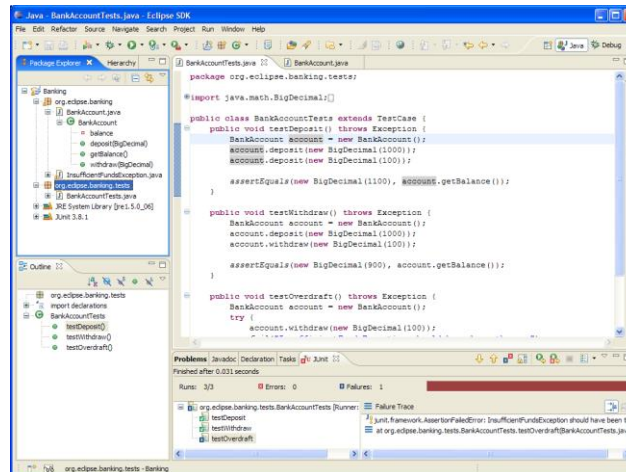


A Simple Java Program

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

Java Development tools

- You can use a text editor, to create Java Programs and to compile and run the programs from the command windows.
- You can use a Java development tool
 - NetBeans, Eclipse
 - Integrated development environment(IDE)
 - quick, effective
 - Self-study tutorials
 - Java Fundamentals I- Introduction to NetBeans IDE, Part 1
 - <https://www.youtube.com/watch?v=Hv2yvXTVTVo>
 - Eclipse IDE Tutorial:
 - <https://www.youtube.com/watch?v=23tAK5zdQ9c>



Step 1: Creating and Editing Using Notepad++

The image illustrates the process of creating and editing a Java file using Notepad++. It is composed of four main parts:

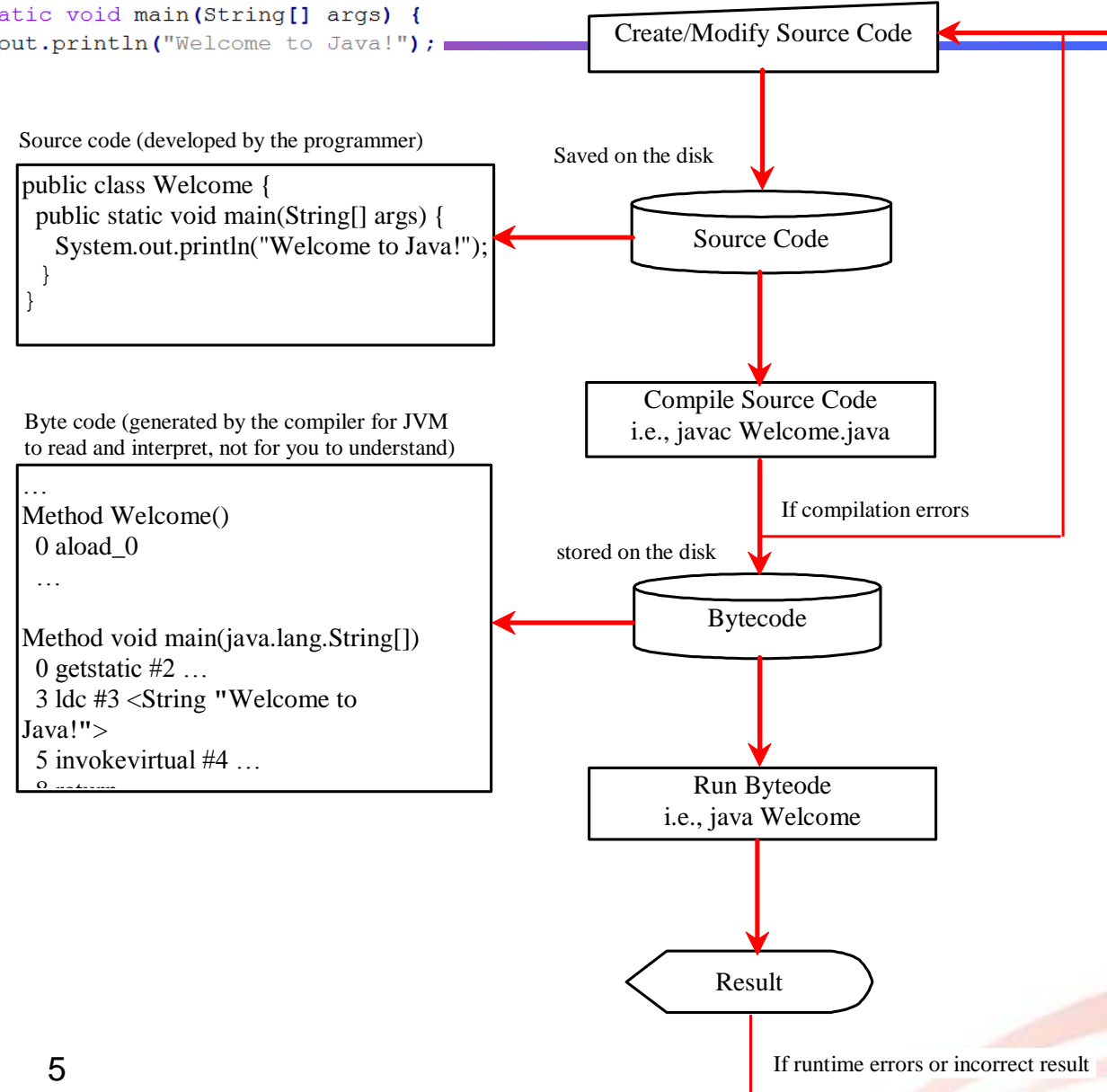
- Start Menu:** A screenshot of the Windows Start menu with the 'Notepad++' application highlighted by a red circle.
- Desktop:** A screenshot of the desktop environment with the 'Notepad++' icon highlighted by a red circle.
- Notepad++ Window:** A screenshot of the Notepad++ application window titled 'new 3 - Notepad++'. It displays the following Java code:

```
1 //This program prints Welcome to Java!
2 public class Welcome {
3     public static void main(String[] args) {
4         System.out.println("Welcome to Java!");
5     }
6 }
7
```
- Save As Dialog:** A screenshot of the 'Save As' dialog box. The 'Save in' location is 'LN 1'. The 'File name' field is empty. The 'Save as type' is set to 'Normal text file (*.txt)'. The 'File type' dropdown menu is open, showing various file formats, with 'Java source file (*.java)' selected.

```
D:\LF work\LF Courses\CM101\2013-2014\prepared\LN 1\Welcome.java - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?

Welcome.java
1 //This program prints Welcome to Java!
2 public class Welcome {
3     public static void main(String[] args) {
4         System.out.println("Welcome to Java!");
5     }
6 }
```

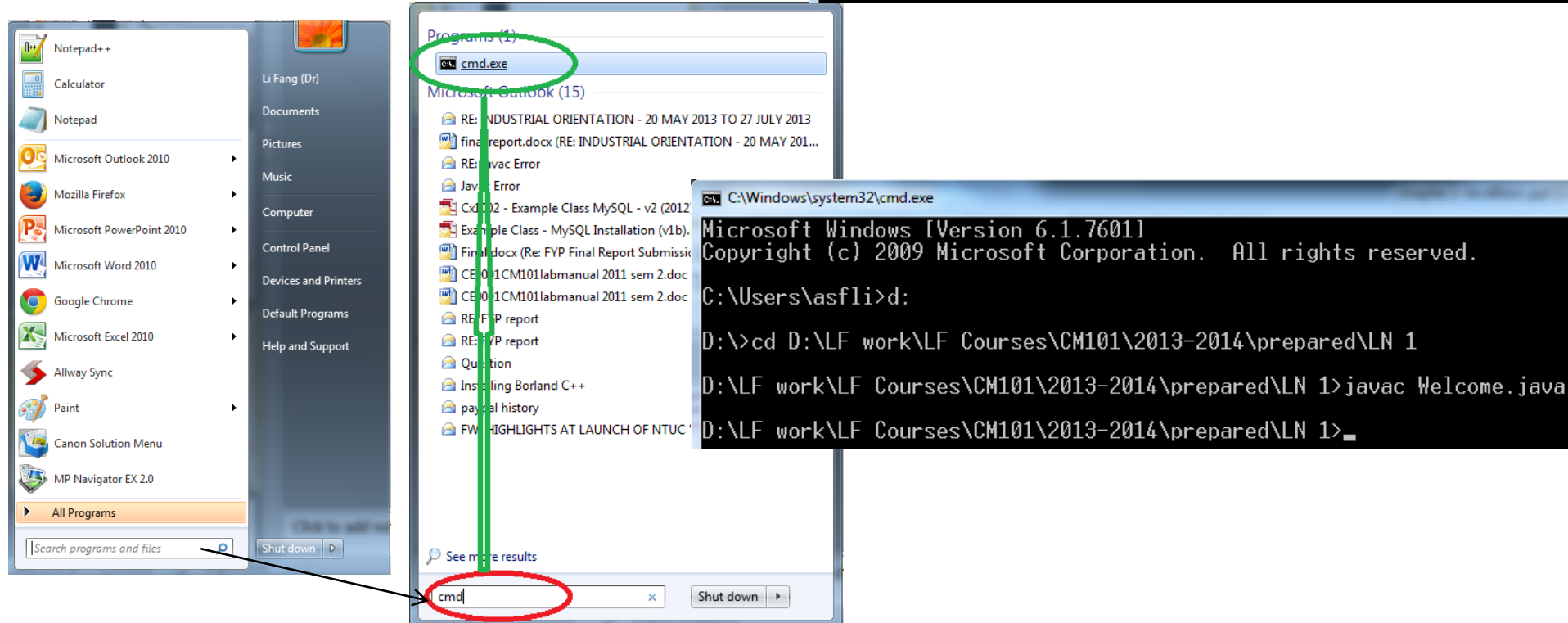
Creating, Compiling, and Running Programs



Step 2: To compile your program

Type JDK Command:

javac **Welcome.java**



where **javac** is JDK Java compiler.

- Compiler translates the source program into Java bytecode.
- The compiler saves the bytecode into the file **Welcome.class**.

Step 3: To run the byte code with the Java interpreter

Successful compilation will create the bytecode class file: **Welcome.class**

```
D:\LF work\LF Courses\CM101\2013-2014\prepared\LN 1>javac Welcome.java
D:\LF work\LF Courses\CM101\2013-2014\prepared\LN 1>dir
Volume in drive D is DATA
Volume Serial Number is 4844-CEB7

Directory of D:\LF work\LF Courses\CM101\2013-2014\prepared\LN 1

01/09/2014  12:17 PM    <DIR>          .
01/09/2014  12:17 PM    <DIR>          ..
01/08/2014   08:59 PM      1,832,960 chapter 1-JavaBasic.ppt
01/06/2009  10:34 AM      3,067,954 Chapter1-Java is everywhere.flv
01/07/2009  11:19 AM        32,256 chapter1-javascript LT.doc
01/06/2009   05:57 PM       36,864 chapter1-javascript.doc
01/09/2009   05:47 PM       41,984 JDK SDK J2SE.doc
01/09/2014  12:17 PM         428 Welcome.class
01/09/2014  12:06 PM        164 Welcome.java
              7 File(s)      5,012,606 bytes
              2 Dir(s)  322,681,405,440 bytes free

D:\LF work\LF Courses\CM101\2013-2014\prepared\LN 1>
```

Type JDK Command :

java Welcome

➤ The class file (bytecode) is loaded into memory and interpreted by the Java Virtual Machine (JVM)

```
D:\LF work\LF Courses\CM101\2013-2014\prepared\LN 1>java Welcome
welcome to Java!
D:\LF work\LF Courses\CM101\2013-2014\prepared\LN 1>
```

Trace a Program Execution

Enter main method

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


Trace a Program Execution

Execute statement

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

```
D:\LF work\LF Courses\CM101\2013-2014\prepared\LN 1> java Welcome
Welcome to Java!
D:\LF work\LF Courses\CM101\2013-2014\prepared\LN 1>
```

print a message
to the console

Download eclipse

eclipse.org/downloads



[GETTING STARTED](#)

[MEMBERS](#)

[PROJECTS](#)

[MORE ▾](#)

Download Eclipse Technology
that is right for you

Tool Platforms



Get Eclipse **OXYGEN**

Install your favorite Eclipse packages.

[DOWNLOAD 64 BIT](#)

[Download Packages](#) | [Need Help?](#)



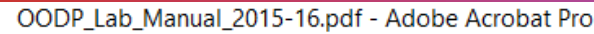
Eclipse Che

Eclipse Che is a developer
workspace server and cloud IDE.



A modern, open source software
development environment that
runs in the cloud.

Eclipse IDE quick start



CE/CZ2002 OBJECT-ORIENTED DESIGN & PROGRAMMING

APPENDIX A : Eclipse IDE

1. Starting Eclipse

To start Eclipse double-click on the file eclipse.exe (Microsoft Windows) on the Desktop. I locate it, go to “Program” - you may want to create a shortcut for your convenience.

The system will prompt you for a *workspace*. The *workspace* is the place in which you work. It is a directory and press the *OK* button.