

Use of Popular IDE for Java

Eclipse, NetBeans, VS Code, IntelliJ, TextPad

Lecture 3
2022, Spring

https://www.oracle.com/java/technologies/downloads/#jdk17-windows

components using the Java programming language.

The JDK includes tools for developing and testing programs written in the Java programming language and r

Linux **macOS** **Windows**

Product/file description	File size	Download
x64 Compressed Archive	171.34 MB	https://download.oracle.com/ja
x64 Installer	152.43 MB	https://download.oracle.com/ja
x64 MSI Installer	151.32 MB	https://download.oracle.com/ja

사용자 변수 편집

변수 이름(N): JAVA_HOME

변수 값(V): C:\Java\jdk-16.0.1

디렉터리 찾아보기(D)... 파일 찾아보기(F)... 확인 취소

환경 변수 편집

%USERPROFILE%\AppData\Local\Microsoft\WindowsApps	새로 만들기(N) 편집(E) 찾아보기(B)... 삭제(D)
%JAVA_HOME%\bin	
C:\Microsoft VS Code\bin	

https://www.java.com/en/download/help/mac_install.html



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- [Using Java](#)
- [General Questions](#)
- [Mobile Java](#)
- [Security](#)
- [Support Options](#)

How do I install Java for my Mac?

This article applies to:

- **Platform(s):** Mac OS X, macOS
 - **Java version(s):** 8.0
-

Mac System Requirements for Oracle Java 7 and later version

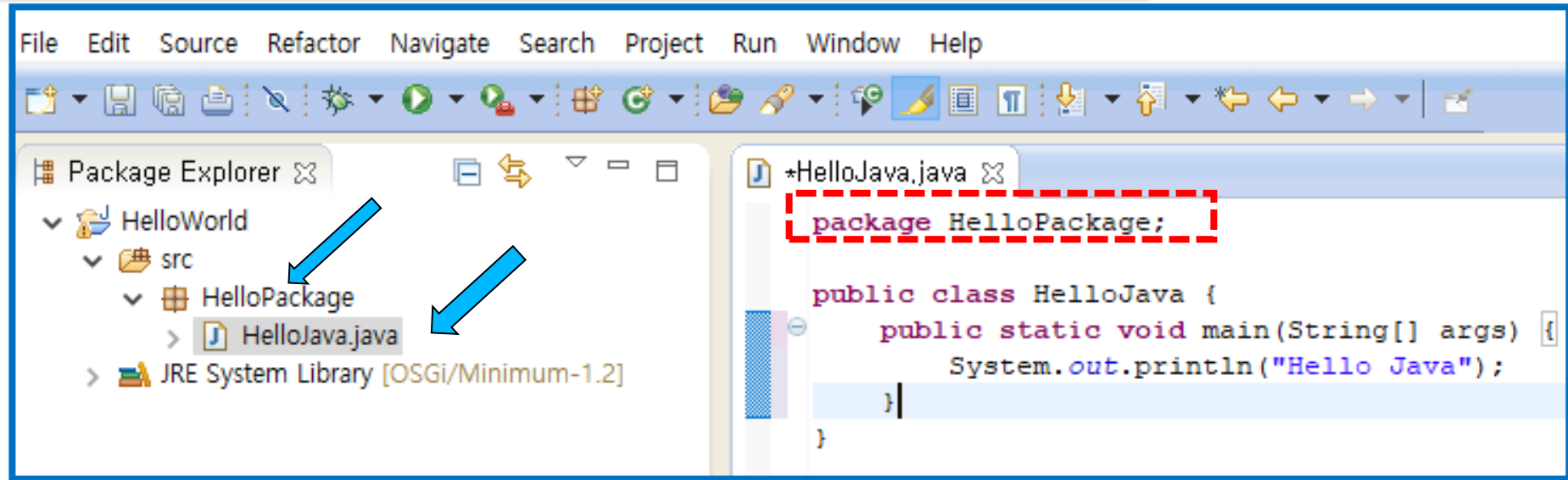
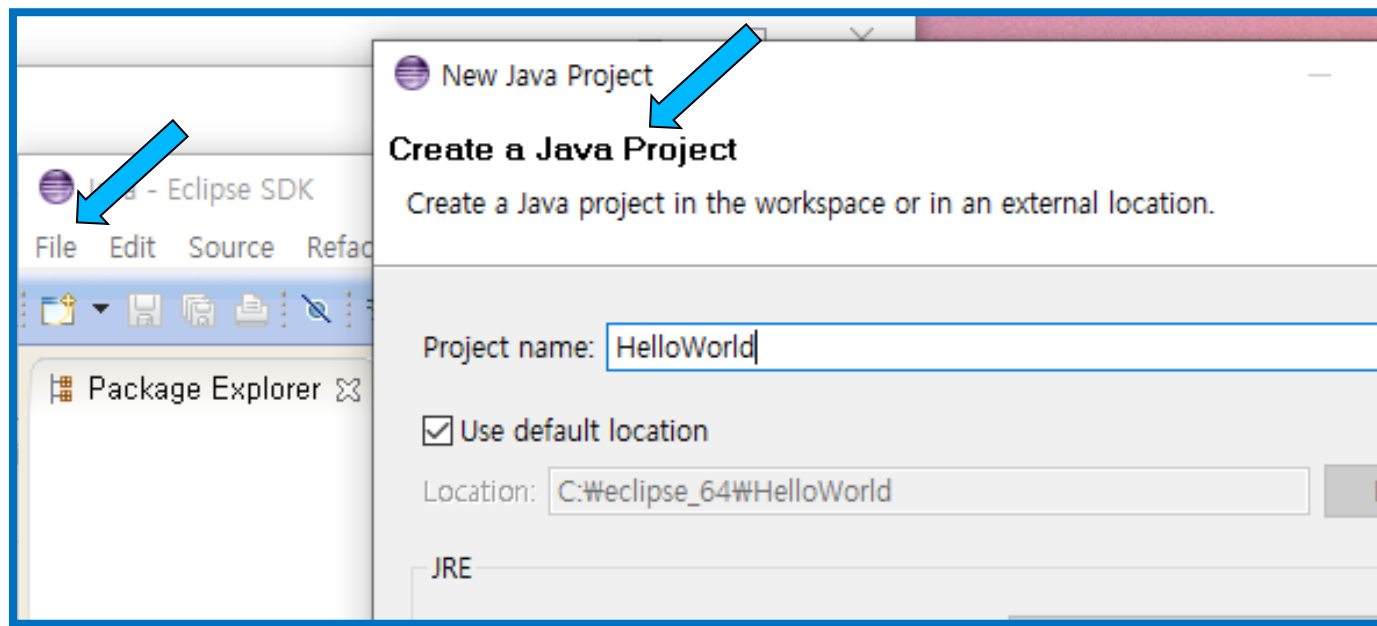
- Intel-based Mac running versions 10.7.3 and above
- Administrator privileges
- A 64-bit browser (e.g., Safari)

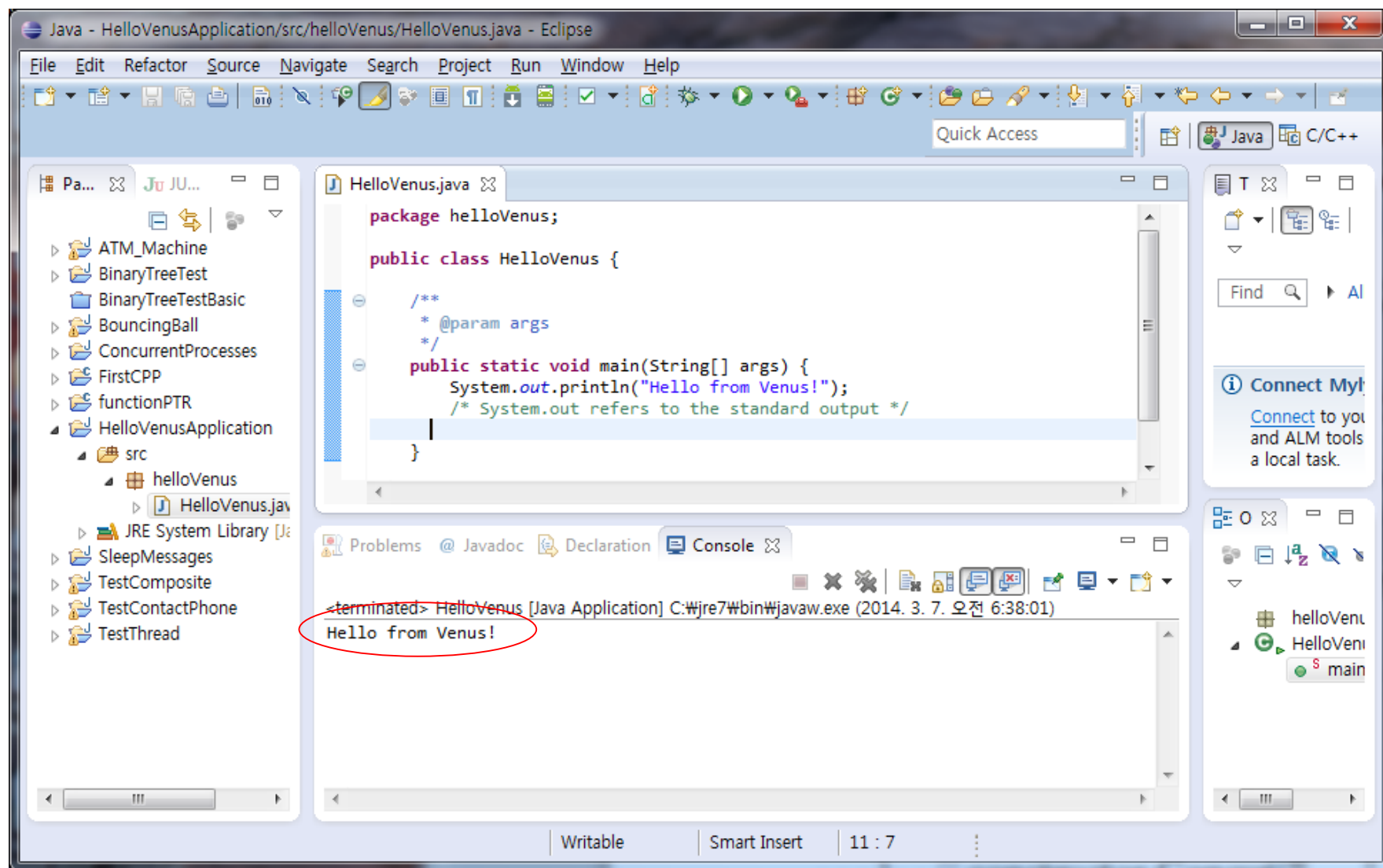
```
C:\Users\User>java -version
java version "16.0.1" 2021-04-20
Java(TM) SE Runtime Environment (build 16.0.1+9-24)
Java HotSpot(TM) 64-Bit Server VM (build 16.0.1+9-24, mixed mode, sharing)

C:\Users\User>javac
Usage: javac <options> <source files>
where possible options include:
```

```
C:\Users\User>java
Usage: java [options] <mainclass> [args...]
        (to execute a class)
or java [options] -jar <jarfile> [args...]
        (to execute a jar file)
```

Eclipse IDE





Workspace - YukiChainExample/src/chain/Main.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer

- AccessTest
- Adaptor
- AggregationEx
- ClassExample
- CompositionEx
- ExTest
- Hybrid
- Hybrid2
- Hybrid3
- LinkedList
- MultiClass
- socketPrj
- TestChain
- umlTest
- YukiChain
- YukiChainExample
 - JRE System Library [JavaSE-1.8]
 - src
 - chain
 - LimitSupport.java
 - Main.java
 - NoSupport.java
 - OddSupport.java
 - SpecialSupport.java
 - Support.java
 - Trouble.java
 - chainRes.ucls

Main.java

```
1 package chain;
2
3 public class Main {
4     public static void main(String[] args) {
5         Support alice = new NoSupport("Alice");
6         Support bob = new LimitSupport("Bob", 100);
7         Support charlie = new SpecialSupport("Charlie", 429);
8         Support diana = new LimitSupport("Diana", 200);
9         Support elmo = new OddSupport("Elmo");
10        Support fred = new LimitSupport("Fred", 300);
11
12        alice.setNext(bob).setNext(charlie).setNext(diana).setNext(elmo).setNext(fred);
13
14        for (int i = 0; i < 500; i += 33) {
15            // ...
16        }
17    }
18 }
```


Problems Javadoc Declaration Console PlantUML Diagrams

<terminated> Main (1) [Java Application] C:\Program Files\Java\jre1.8.0_321\bin\javaw.exe (2022. 3. 4. 오후 7:15:54 - 오후 7:15:54)

[Trouble 0] is resolved by [Bob].
[Trouble 33] is resolved by [Bob].
[Trouble 66] is resolved by [Bob].
[Trouble 99] is resolved by [Bob].
[Trouble 132] is resolved by [Diana].
[Trouble 165] is resolved by [Diana].
[Trouble 198] is resolved by [Diana].
[Trouble 231] is resolved by [Elmo].
[Trouble 264] is resolved by [Fred].
[Trouble 297] is resolved by [Elmo].
[Trouble 330] cannot be resolved.
[Trouble 363] is resolved by [Elmo].
[Trouble 396] cannot be resolved.
[Trouble 429] is resolved by [Charlie].
[Trouble 462] cannot be resolved.
[Trouble 495] is resolved by [Elmo].

<https://netbeans.apache.org/download/nb126/nb126.html>

Possible Conflict of JDK Version and NetBeans Version

 **Apache NetBeans**


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Downloading Apache NetBeans 12.6

Apache NetBeans 12.6 was released on November 29, 2021. See [Apache NetBeans 12.6 Features](#) for a full list of features.

Apache NetBeans 12.6 is available for download from your closest Apache mirror.

- Binaries: [netbeans-12.6-bin.zip](#) (SHA-512, PGP ASC)
- Installers:
 - [Apache-NetBeans-12.6-bin-windows-x64.exe](#) (SHA-512, PGP ASC)
 - [Apache-NetBeans-12.6-bin-linux-x64.sh](#) (SHA-512, PGP ASC)
 - [Apache-NetBeans-12.6-bin-macosx.dmg](#) (SHA-512, PGP ASC)

 macOS versions prior to 10.14.4 require the [Swift 5 Runtime](#) to be installed to launch Apache NetBeans 12.6.

- Source: [netbeans-12.6-source.zip](#) (SHA-512, PGP ASC)
- Javadoc for this release is available at <https://bits.netbeans.org/12.6/javadoc>

Officially, it is important that you [verify the integrity](#) of the downloaded files using the PGP signatures (.asc file) or a hash (.sha512 files). The PGP keys used to sign this release are available [here](#).

Apache NetBeans can also be installed as a self-contained [snap package](#) on Linux.

Deployment Platforms
Building from Source
Community Approval
Earlier Releases

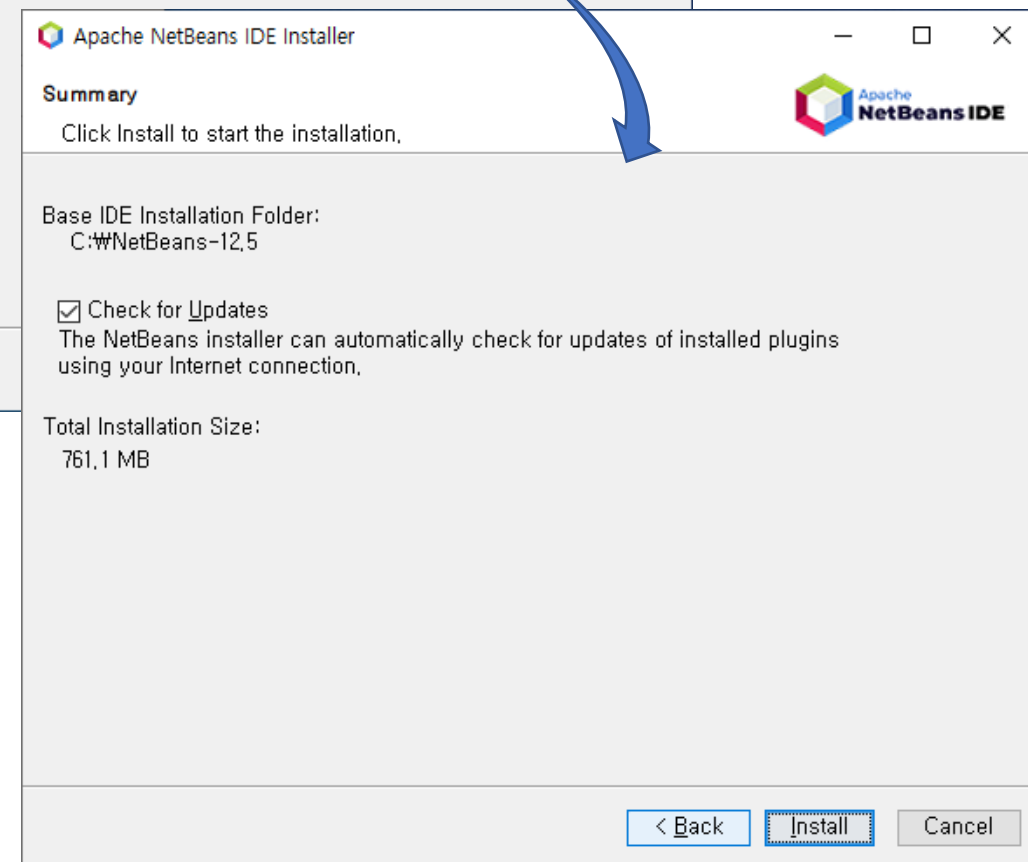
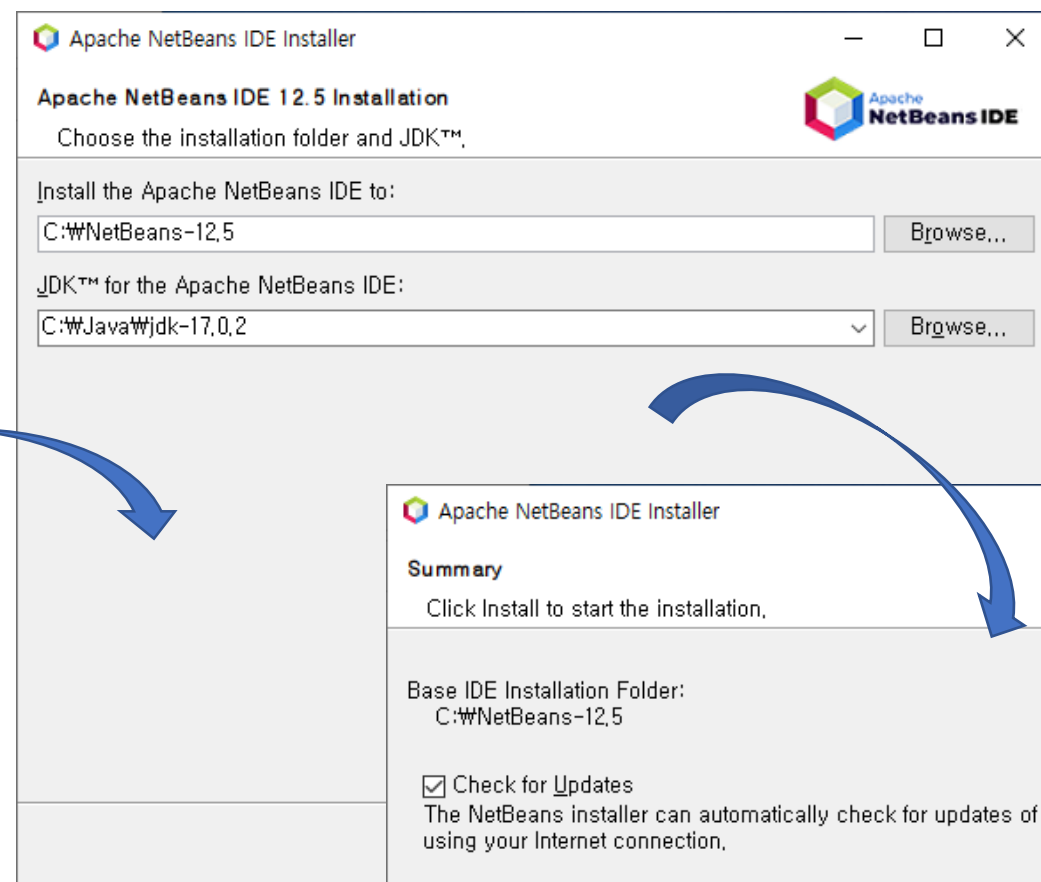
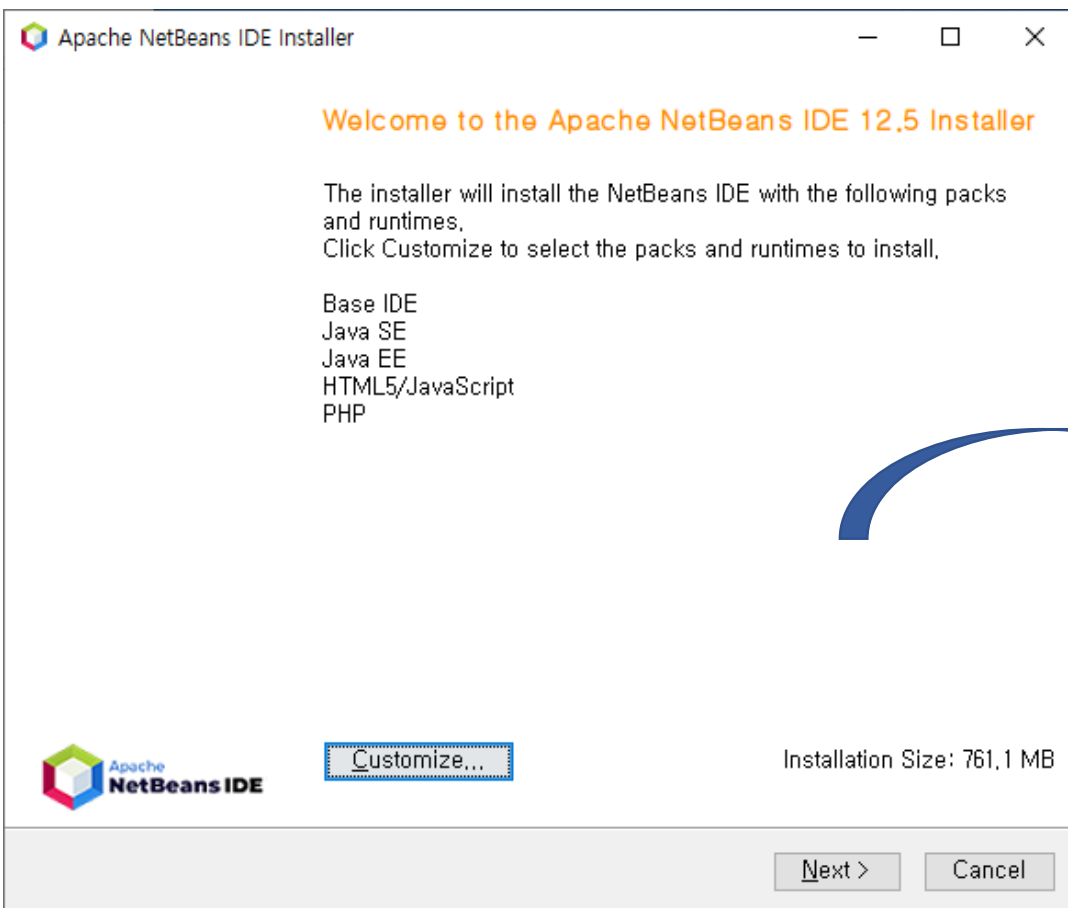
Possible Conflict of JDK Version and NetBeans Version



```
C:\Users\user>java -version
java version "17.0.2" 2022-01-18 LTS
Java(TM) SE Runtime Environment (build 17.0.2+8-LTS-86)
Java HotSpot(TM) 64-Bit Server VM (build 17.0.2+8-LTS-86, mixed mode, sha
```

OK with JDK 17 and NetBean 12

Microsoft Edge PDF Document
Apache-NetBeans-12.5-bin-windows-x64.exe



Apache NetBeans

ChainPattern1 - Apache NetBeans IDE 12.4

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

Search (Ctrl+H)

192.2/336.0MB

Projects Files Services

- ChainPattern1
 - Source Packages
 - chainpattern1
 - ChainPattern1.java
 - LimitSupport.java
 - NoSupport.java
 - OddSupport.java
 - SpecialSupport.java
 - Support.java
 - Trouble.java
 - Test Packages
 - Libraries
 - Test Libraries
- gradleproject1
- HelloWorld
- JavaApplication2
- NetBeanProj3

ChainPattern1.java Support.java Trouble.java OddSupport.java SpecialSupport.java

Source History

```
13
14  /**
15   * @param args the command line arguments
16   */
17  public static void main(String[] args) {
18      Support alice = new NoSupport("Alice");
19      Support bob = new LimitSupport("Bob", 100);
20      Support charlie = new SpecialSupport("Charlie", 429);
21      Support diana = new LimitSupport("Diana", 200);
22      Support elmo = new OddSupport("Elmo");
23      Support fred = new LimitSupport("Fred", 300);
24
25      alice.setNext(bob).setNext(charlie).setNext(diana).setNext(elmo).setNext(fred);
26
27      for (int i = 0; i < 500; i += 33) {
28          alice.support(new Trouble(i));
29      }
```

chainpattern1,ChainPattern1 > main > charlie

Output - ChainPattern1 (run)

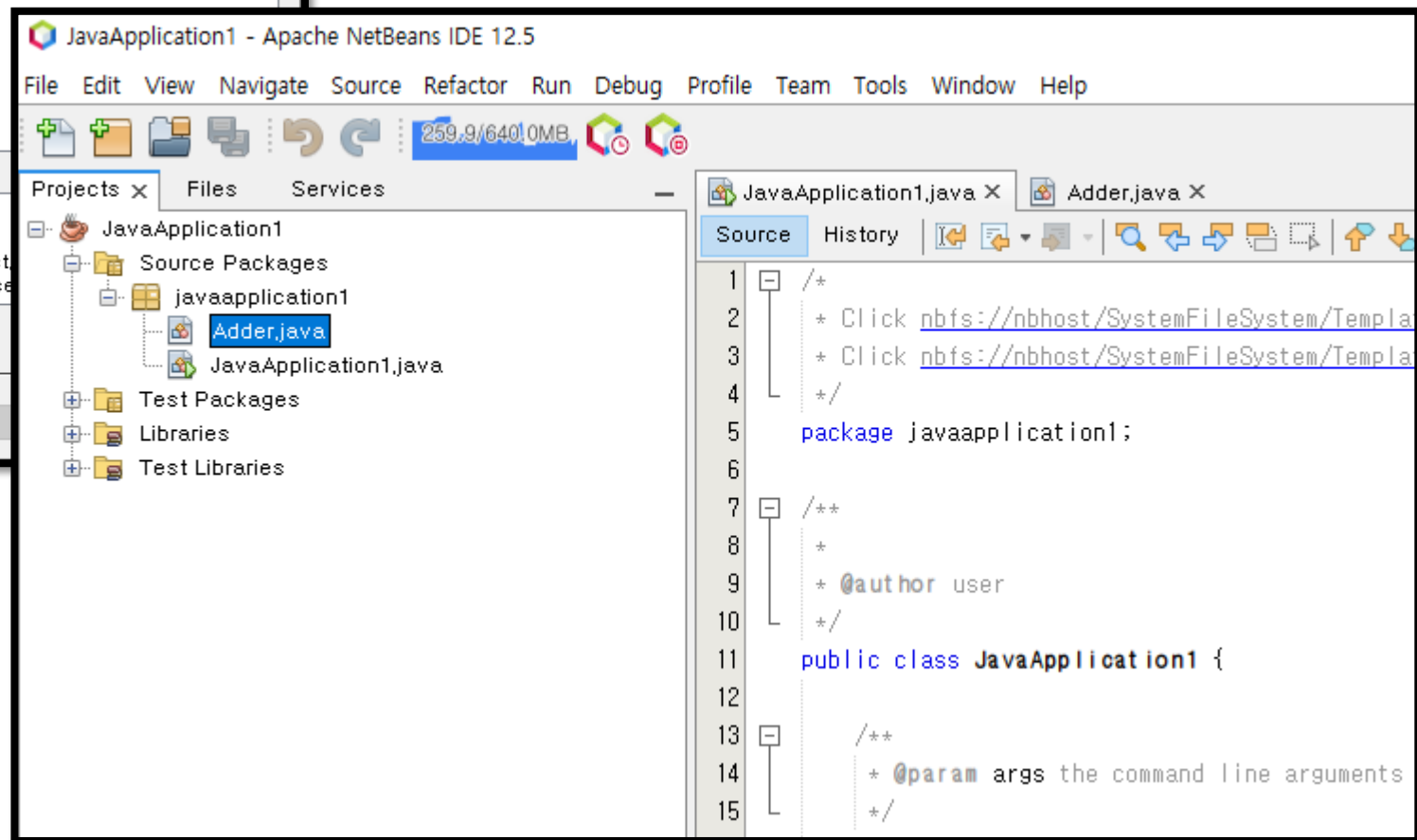
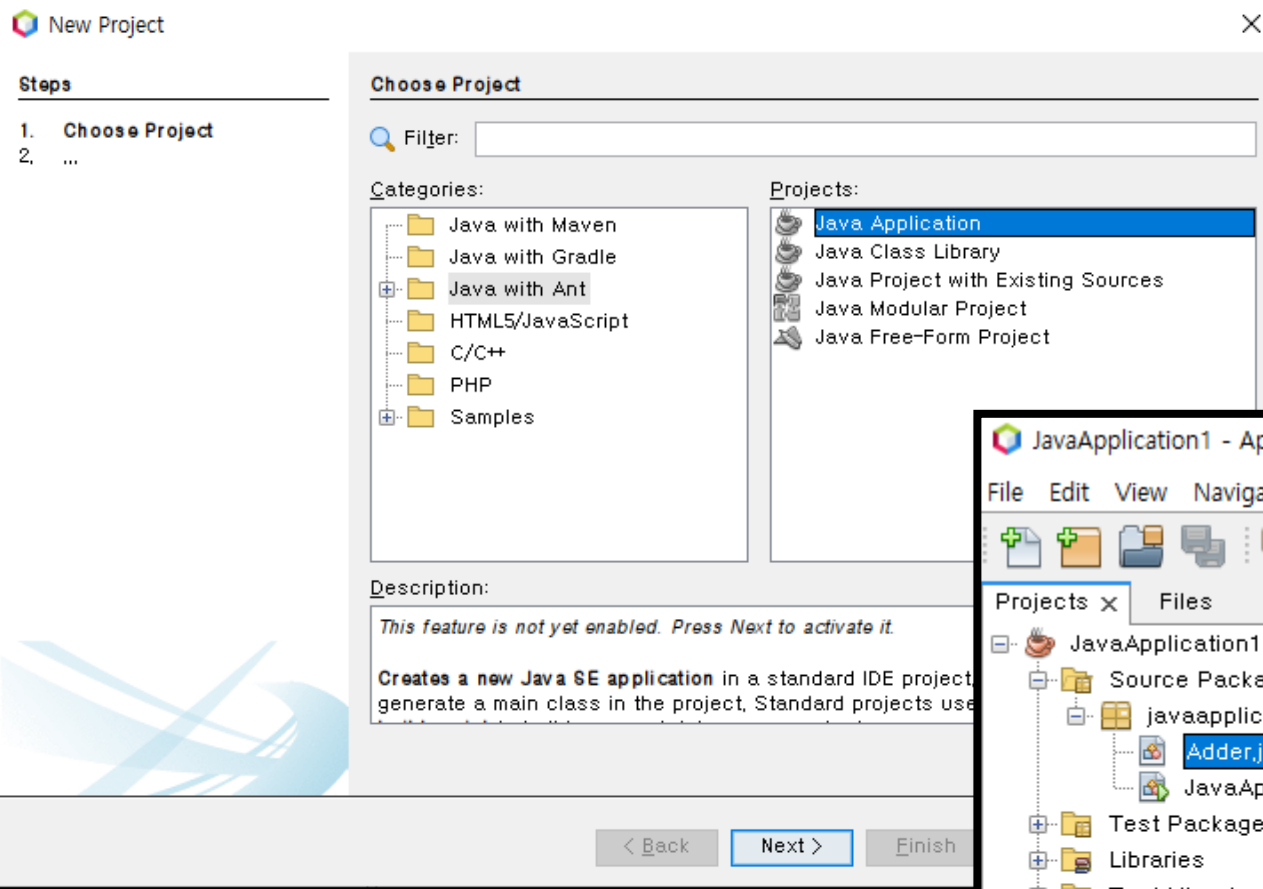
```
[Trouble 0] is resolved by [Bob].
[Trouble 33] is resolved by [Bob].
[Trouble 66] is resolved by [Bob].
[Trouble 99] is resolved by [Bob].
[Trouble 132] is resolved by [Diana].
[Trouble 165] is resolved by [Diana].
[Trouble 198] is resolved by [Diana].
[Trouble 231] is resolved by [Elmo].
[Trouble 264] is resolved by [Fred].
[Trouble 297] is resolved by [Elmo].
[Trouble 330] cannot be resolved.
[Trouble 363] is resolved by [Elmo].
[Trouble 396] cannot be resolved.
[Trouble 429] is resolved by [Charlie].
[Trouble 462] cannot be resolved.
[Trouble 495] is resolved by [Elmo].
BUILD SUCCESSFUL (total time: 0 seconds)
```

main - Navigator

Members <empty>

- ChainPattern1
 - ChainPattern1()
 - main(String[] args)

20:24 | INS



195.0/640.0MB

Projects x Files Services

JavaApplication1

- Source Packages
 - javaapplication1
 - Adder.java
 - JavaApplication1.java
- Test Packages
- Libraries
- Test Libraries

Navigator x

Members <empty>

Adder

- Adder()
- add(int a, int b): int

JavaApplication1.java x Adder.java x

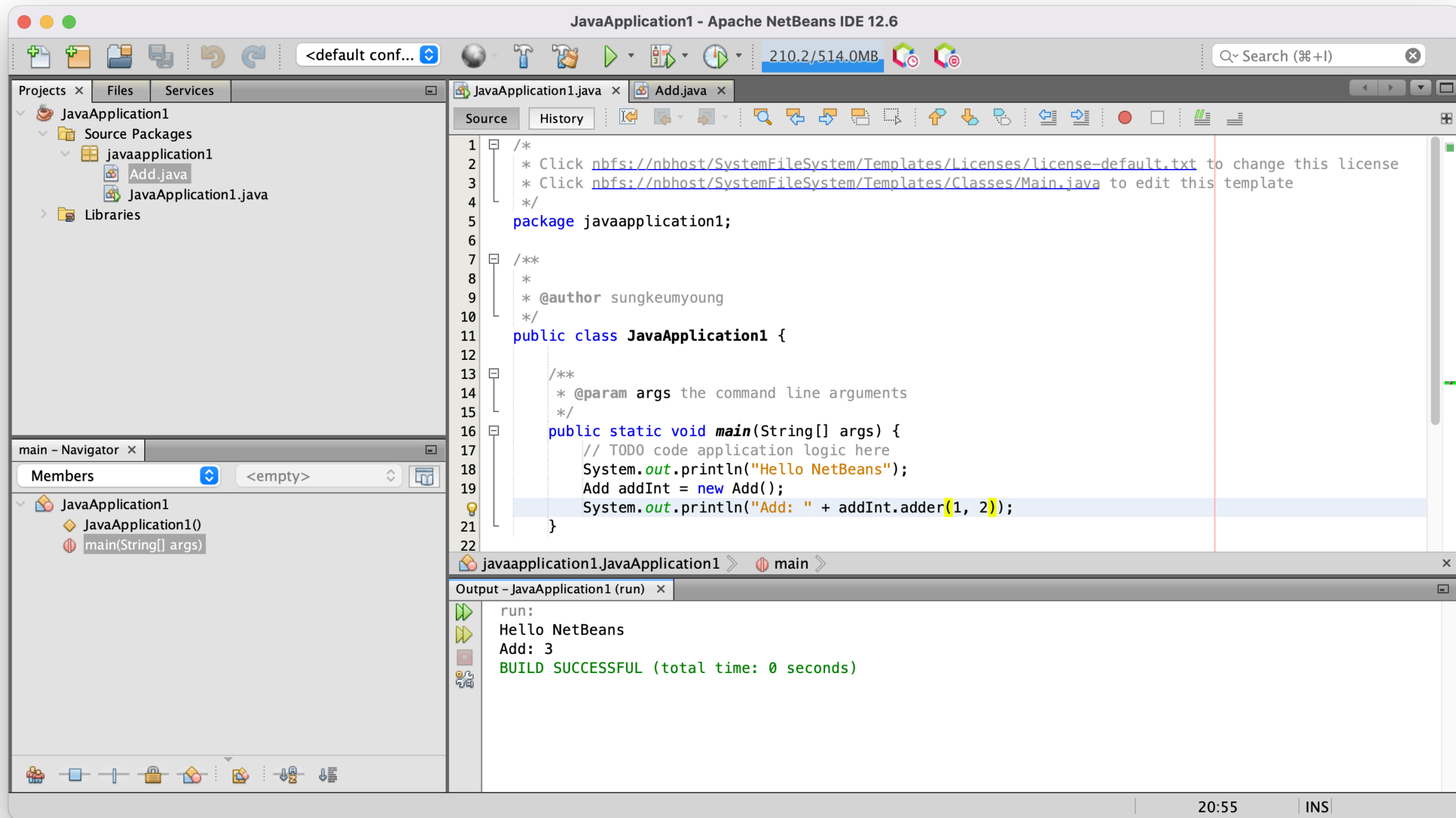
Source History

```
1  /*
2   * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
3   * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java
4   */
5   package javaapplication1;
6
7   /**
8    *
9    * @author user
10   */
11   public class JavaApplication1 {
12
13       /**
14        * @param args the command line arguments
15        */
16       public static void main(String[] args) {
17           // TODO code application logic here
18           System.out.println("Hello");
19           Adder addInt = new Adder();
20           int c = addInt.add(1, 2);
21           System.out.println(c);
22       }
```

javaapplication1,JavaApplication1 > main >

Output - JavaApplication1 (run) x

run:
Hello
3
BUILD SUCCESSFUL (total time: 0 seconds)



<https://code.visualstudio.com/download>



Visual Studio Code

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Download

Version 1.65 is now available! [Read about the new features and fixes from February.](#)



Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.



↓ Windows

Windows 7, 8, 10, 11

User Installer	64 bit	32 bit	ARM
System Installer	64 bit	32 bit	ARM
.zip	64 bit	32 bit	ARM



↓ .deb

Debian, Ubuntu

↓ .rpm

Red Hat, Fedora, SUSE

.deb	64 bit	ARM	ARM 64
.rpm	64 bit	ARM	ARM 64
.tar.gz	64 bit	ARM	ARM 64

[Snap Store](#)



↓ Mac

macOS 10.11+

.zip [Universal](#) [Intel Chip](#) [Apple Silicon](#)

VS Code

File Edit Selection View Go Run Terminal Help

Main.java - Chain - Visual Studio Code

EXPLORER

- CHAIN
 - LimitSupport.java
 - Main.java
 - NoSupport.java
 - OddSupport.java
 - SpecialSupport.java
 - Support.java
 - Trouble.java

Main.java > Main > main(String[])

```
1 public class Main {
2     Run | Debug
3     public static void main(String[] args) {
4         Support alice = new NoSupport("Alice");
5         Support bob = new LimitSupport("Bob", 100);
6         Support charlie = new SpecialSupport("Charlie", 429);
7         Support diana = new LimitSupport("Diana", 200);
8         Support elmo = new OddSupport("Elmo");
9         Support fred = new LimitSupport("Fred", 300);
10
11         alice.setNext(bob).setNext(charlie).setNext(diana).setNext(elmo).setNext(fred);
12
13         for (int i = 0; i < 500; i += 33) {
14             alice.support(new Trouble(i));
15         }
16     }
17 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

[Trouble 132] is resolved by [Diana].
[Trouble 165] is resolved by [Diana].
[Trouble 198] is resolved by [Diana].
[Trouble 231] is resolved by [Elmo].
[Trouble 264] is resolved by [Fred].
[Trouble 297] is resolved by [Elmo].
[Trouble 330] cannot be resolved.
[Trouble 363] is resolved by [Elmo].
[Trouble 396] cannot be resolved.
[Trouble 429] is resolved by [Charlie].
[Trouble 462] cannot be resolved.
[Trouble 495] is resolved by [Elmo].
PS C:\VSCodeTest\Chain>

powerShell
Java Proces...

Ln 15, Col 6 Spaces: 4 UTF-8 CRLF Java JavaSE-16

App.java — vstudiotest

App.java x Adder.java

src > App.java > App

1 public class App {

2 public static void main(String[] args) throws Exception {

3 System.out.println("Hello, World!, visual");

4 Adder addInt = new Adder();

5 System.out.println("Add: " + addInt.add(1, 2));

6 }

7 }

8 }

PROBLEMS

OUTPUT

TERMINAL

DEBUG CONSOLE

vaVirtualMachines/jdk-16.0.2.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -cp /Volumes/test/Chapter030original/vstudiotest/vstudiotest/bin App
Hello, World!, visual
seong-geum-yeong-ui-MacBook-Pro:vstudiotest sungkeumyoung\$ cd /Volumes/test/Chapter030original/vstudiotest/vstudiotest ; /usr/bin/env /Library/Java/JavaVirtualMachines/jdk-16.0.2.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -cp /Volumes/test/Chapter030original/vstudiotest/vstudiotest/bin App
Hello, World!, visual
Add: 3
seong-geum-yeong-ui-MacBook-Pro:vstudiotest sungkeumyoung\$ cd /Volumes/test/Chapter030original/vstudiotest/vstudiotest ; /usr/bin/env /Library/Java/JavaVirtualMachines/jdk-16.0.2.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -cp /Volumes/test/Chapter030original/vstudiotest/vstudiotest/bin App
Hello, World!, visual
Add: 3
seong-geum-yeong-ui-MacBook-Pro:vstudiotest sungkeumyoung\$

Java Proce...

EXPLORER

VSTUDIOTEST

> .vscode

> bin

> lib

> src

App.java

App.java

README.md

OUTLINE

JAVA PROJECTS

Ln 7, Col 2

Spaces: 4

UTF-8

LF

Java

JavaSE-16


https://www.jetbrains.com/idea/download/#section=windows

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IntelliJ IDEA

Coming in 2022.1What's NewFeaturesResourcesBuyDownload



Version: 2021.3.2
Build: 213.6777.52
28 January 2022
[Release notes](#)

[System requirements](#)

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WindowsmacOSLinux

Ultimate

For web and enterprise development

Download.exe

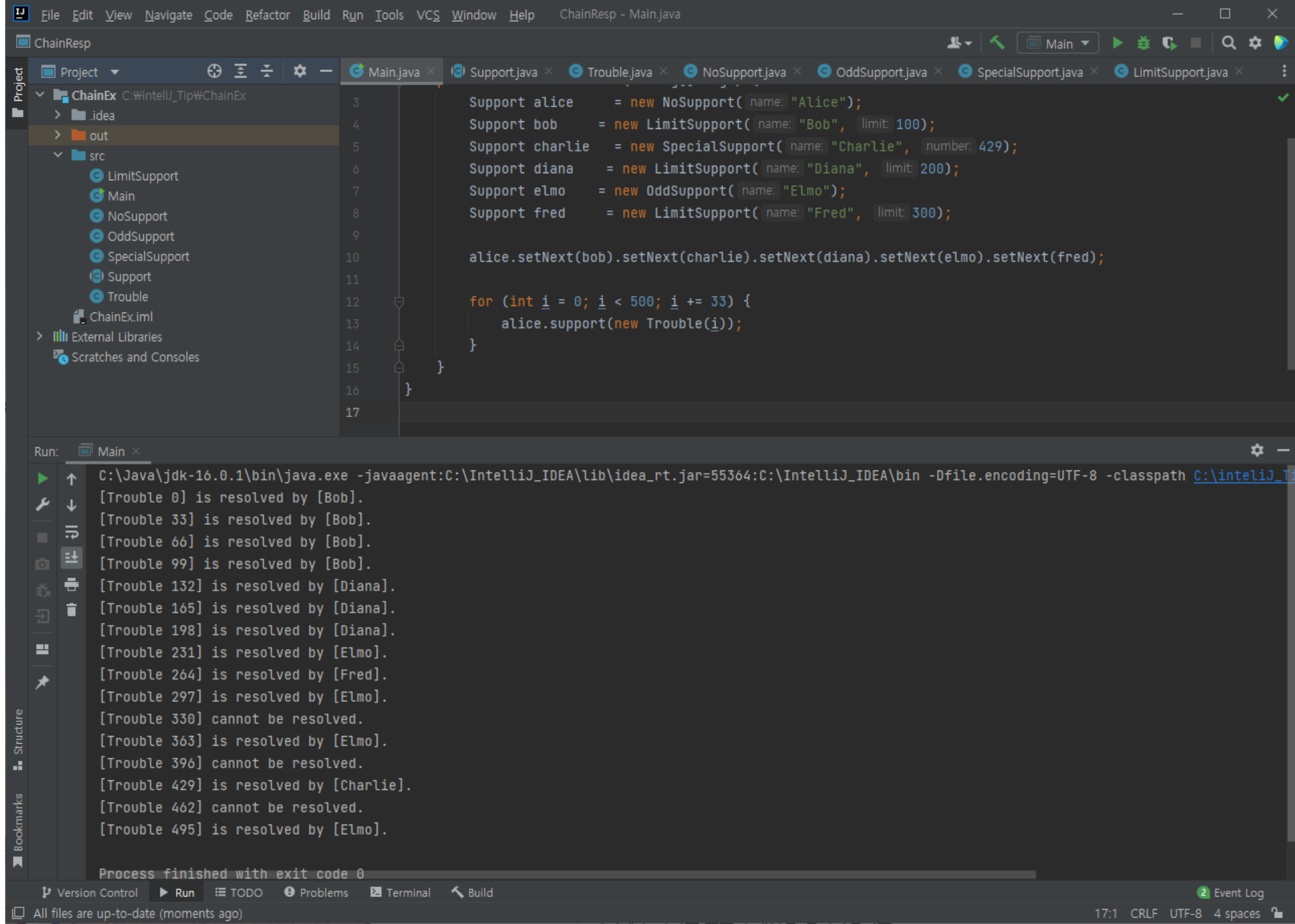
Free 30-day trial

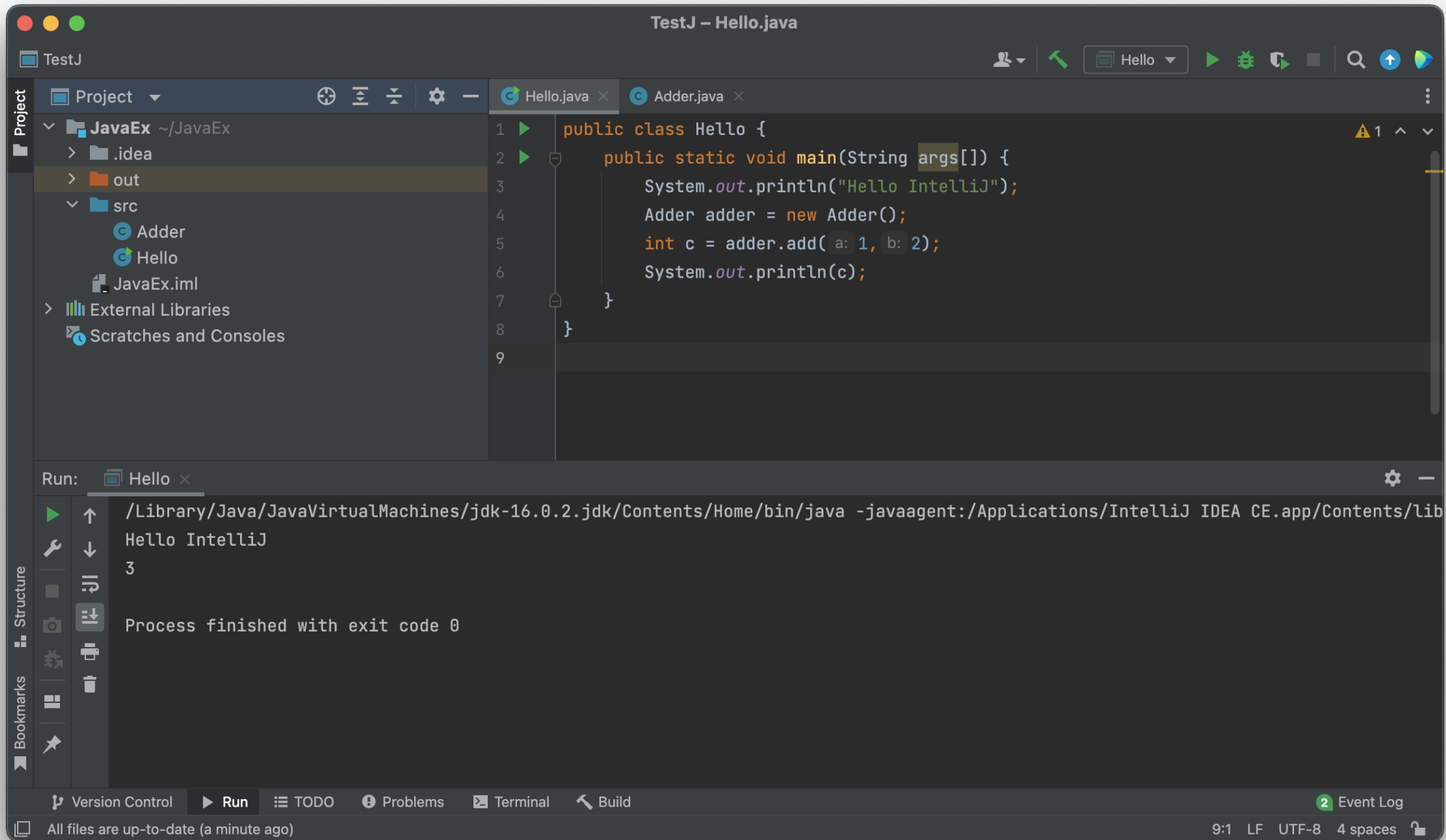
Community

For JVM and Android development

Download.exe

Free, built on open source





<https://www.textpad.com/download>

he Text Editor
for Windows

≡ English

HELIOS^{software}
olutions

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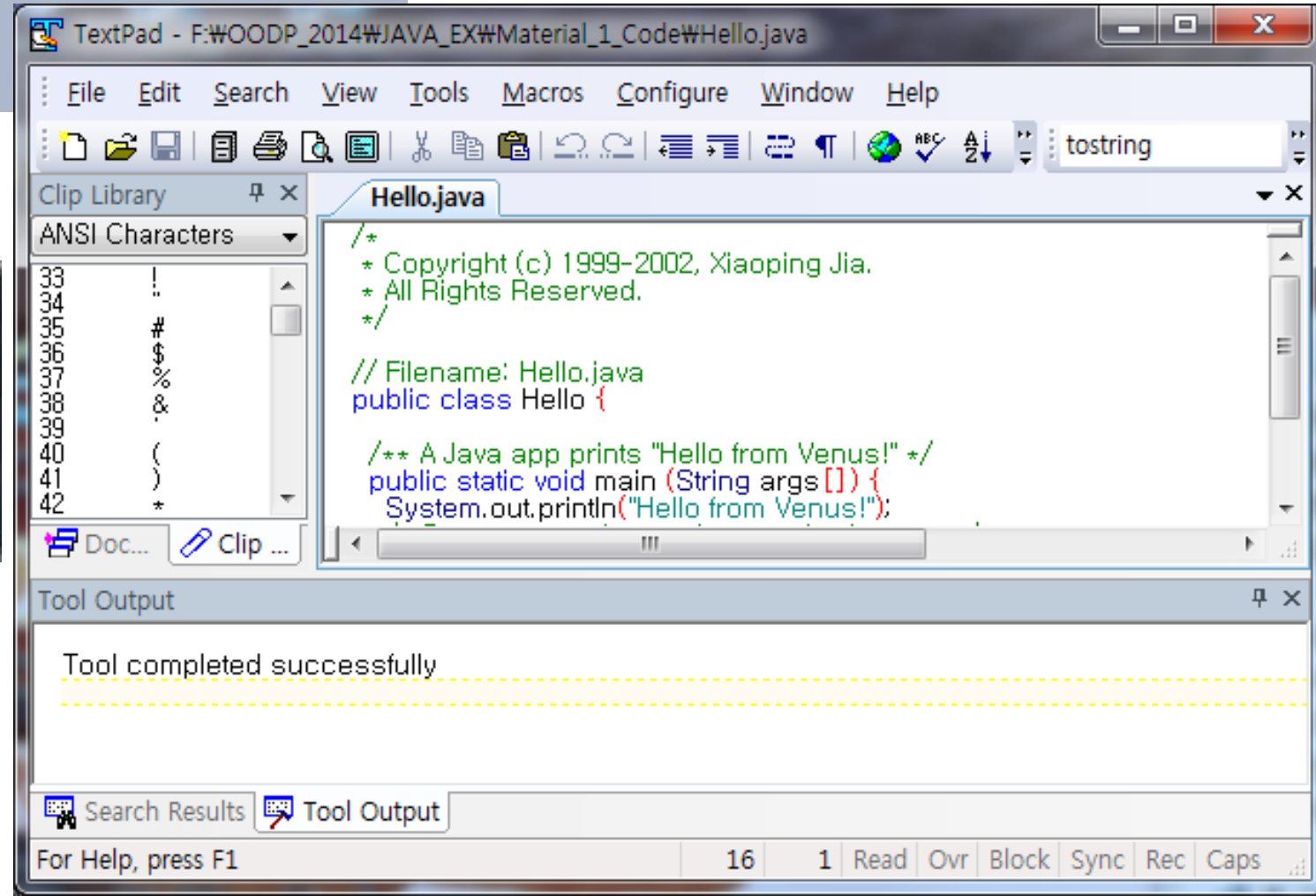
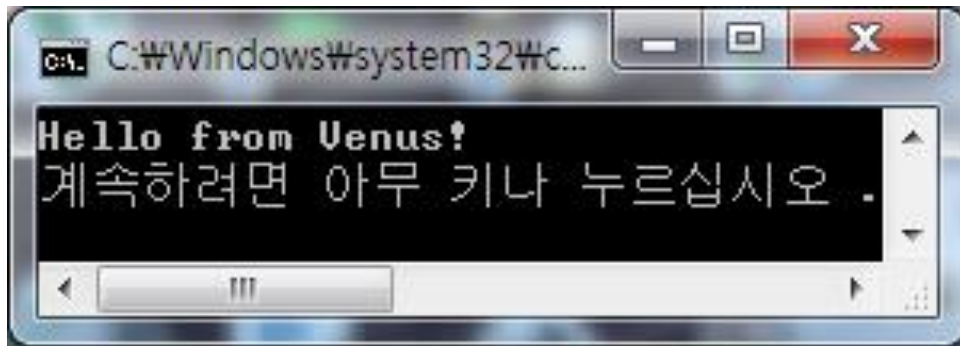
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- [TextPad 7.6.4](#)
- [WildEdit 2.4](#)
- [Addons](#)
- [Additional Dictionaries for the Spell Checker](#)
- [Installation Instructions](#)
- [Upgrading to TextPad 8](#)
- [Release Notes](#)

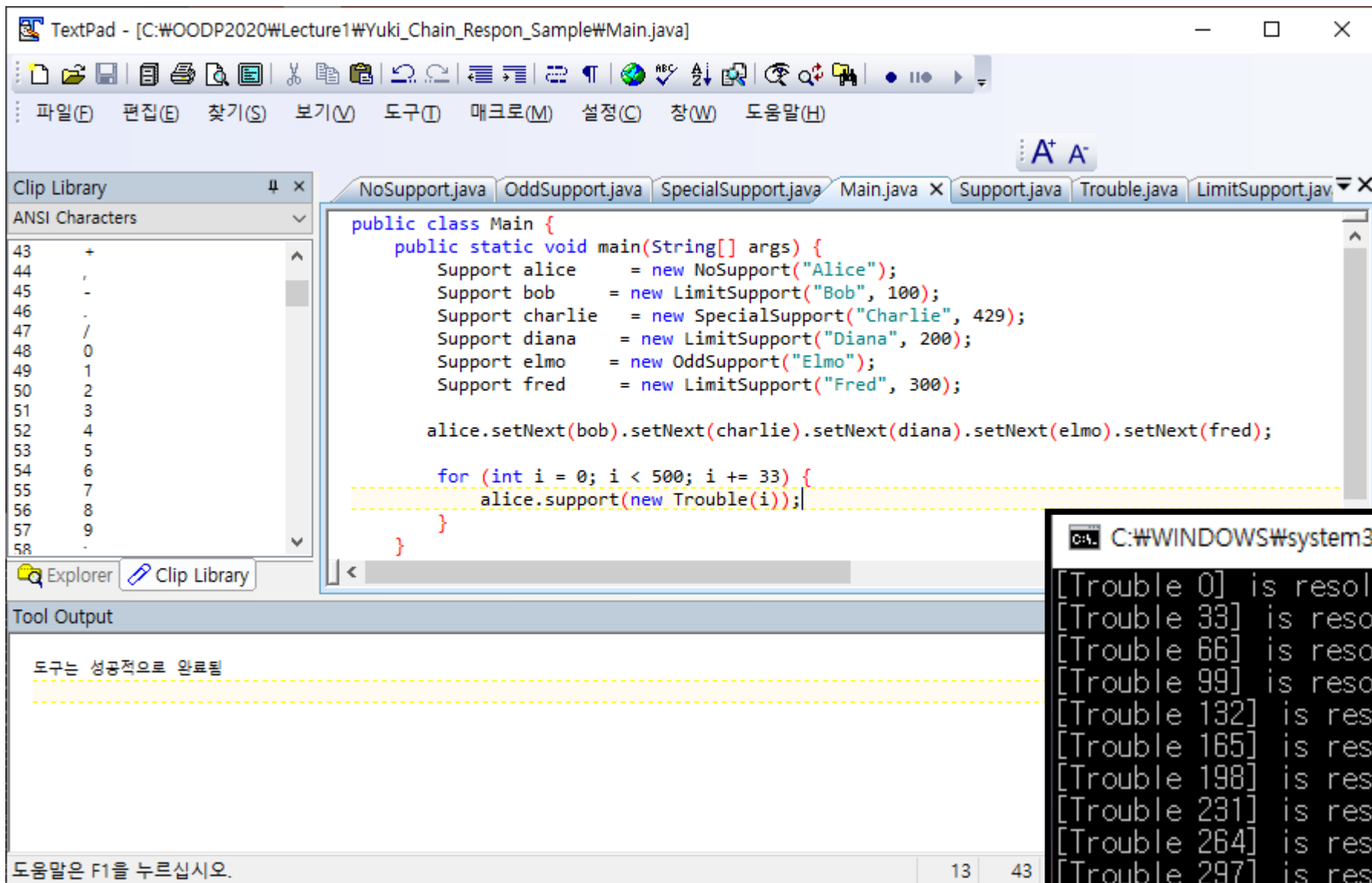
You are welcome to download a copy of TextPad for evaluation, or to upgrade from an earlier release. There is no charge for the download, but you must pay for the software if you decide to keep it. A single user license costs only £16.50 GBP (approximately \$27 USD).

TextPad 8.10.0 (2022-01-20):				
User Interface	Online Help	Spell Checker	Download	
English	English	American, British, Canadian	32-bit	64-bit
Français	Français	Français	32-bit	64-bit
Deutsche	Deutsche	Altes und Reformwörterbuch	32-bit	64-bit
Nederlands	English	Nederlands	32-bit	64-bit

```
public class Hello {  
    /** A Java app prints "Hello from Venus!" */  
    public static void main (String args[]) {  
        System.out.println("Hello from Venus!");  
        /* System.out refers to the standard output */  
    }  
}
```



TextPad



```
C:\WINDOWS\system32\cmd.exe

[Trouble 0] is resolved by [Bob].
[Trouble 33] is resolved by [Bob].
[Trouble 66] is resolved by [Bob].
[Trouble 99] is resolved by [Bob].
[Trouble 132] is resolved by [Diana].
[Trouble 165] is resolved by [Diana].
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[Trouble 462] cannot be resolved.
[Trouble 495] is resolved by [Elmo].
```