

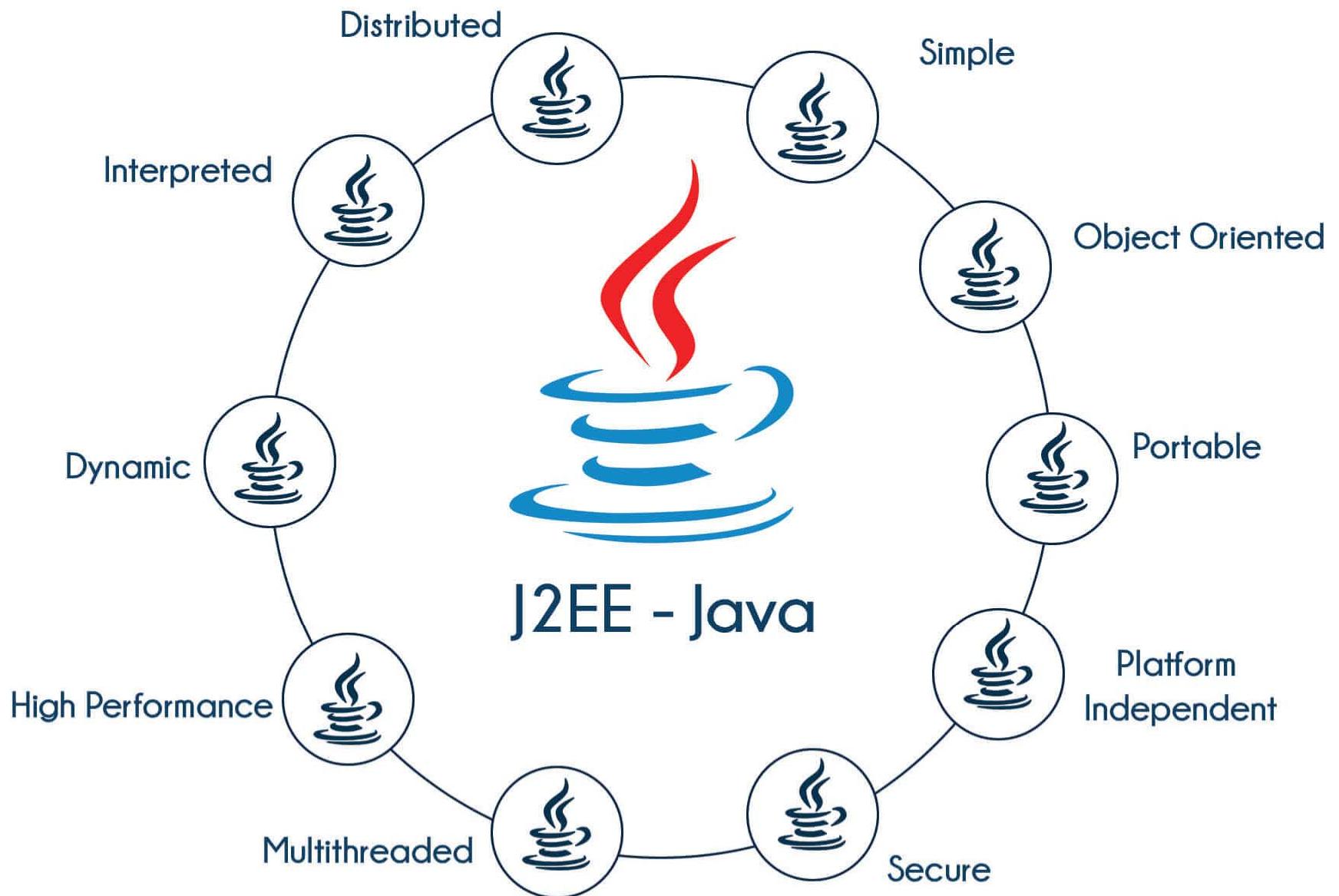
Java

DESARROLLO DE APLICACIONES WEB

Eclipse IDE

The image displays the Eclipse IDE interface with five distinct windows:

- About Eclipse IDE**: A dialog box showing the version (2024-03 (4.31.0)), build ID (Build id: 20240307-1437), and copyright information. It also notes that the product includes software developed by other open source projects.
- Eclipse Enterprise Java and Web Developer Tools 3.33**: Marketplace card for the Java and web developer tools. It includes a gear icon with "web tools" text, a star rating of 1707, and a download count of 1.20M (16,449 last month). A "Change" button is present.
- Eclipse Web Developer Tools 3.33**: Marketplace card for the web developer tools. It includes a gear icon with "web tools" text, a star rating of 1684, and a download count of 766K (5,620 last month). A "Change" button is present.
- WindowBuilder Current**: Marketplace card for WindowBuilder, a graphical application for creating Swing and SWT applications. It includes a gear icon with "windowbuilder" text, a star rating of 1033, and a download count of 1.13M (17,232 last month).
- JUnit-Tools 1.1.0**: Marketplace card for JUnit-Tools, which optimizes JUnit creation and maintenance. It includes a green checkmark icon, a star rating of 161, and a download count of 108K (1,116 last month). A "Change" button is present.



¿Qué es un Servlet?

- Un Servlet es un objeto java que pertenece a una clase que extiende javax.servlet.http.HttpServlet. Existen diferentes tipos de Servlets pero HttpServlet es el más usado.
- Un contenedor de Servlet es un programa capaz de recibir peticiones de páginas web y redireccionar estas peticiones a un objeto Servlet.

¿Qué es un Servlet?

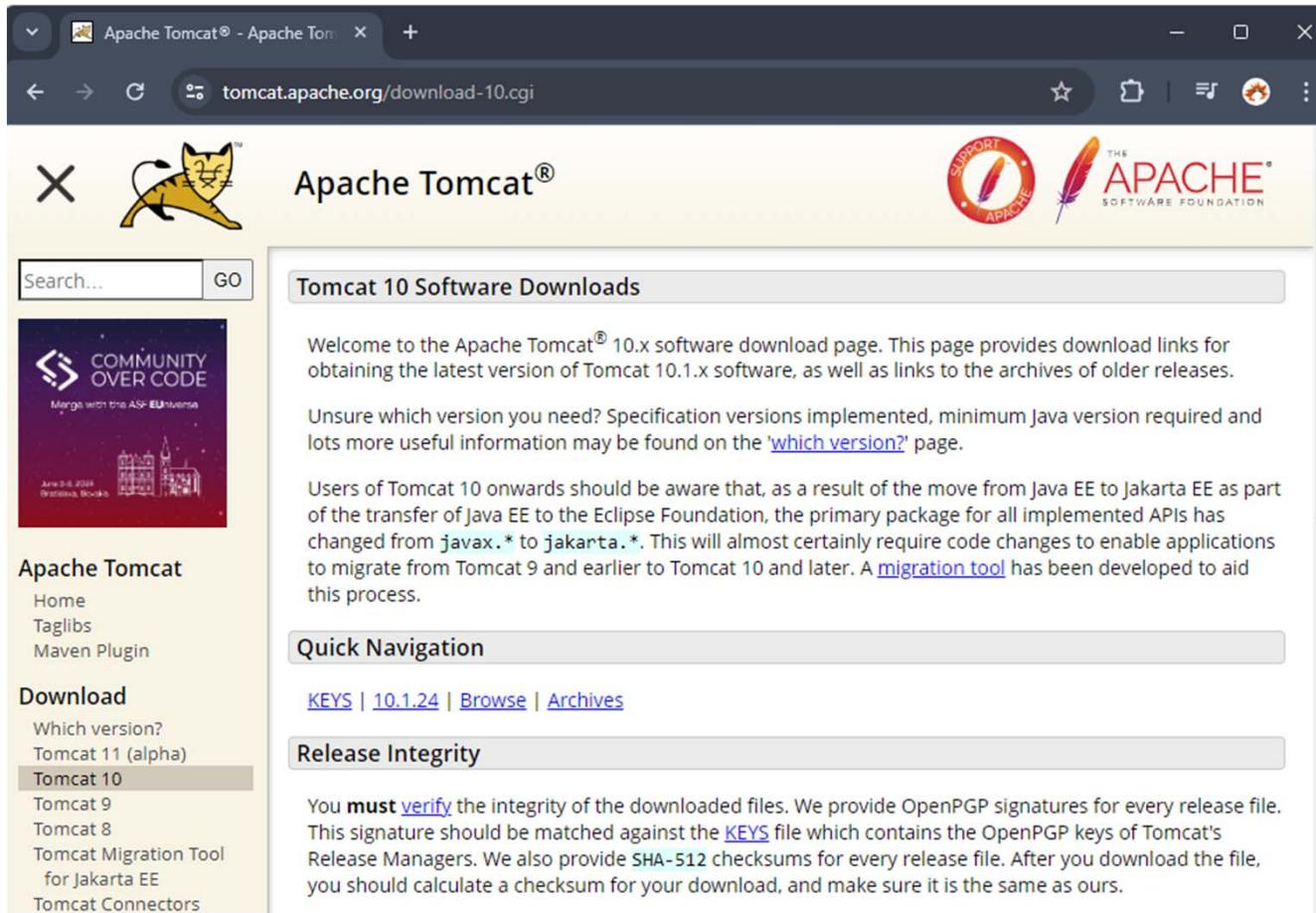
- Funcionamiento de un contenedor de Servlets
 - El Browser pide una página al servidor HTTP que es un contenedor de Servlets
 - El contenedor de Servlets delega la petición a un Servlet en particular elegido de entre los Servlets que contiene.
 - El Servlet, que es una objeto java, se encarga de generar el texto de la página web que se entrega al contenedor.
 - El contenedor devuelve la página web al Browser que la solicitó.

Apache Tomcat

- Apache Tomcat es un contenedor Java Servlet, o contenedor web, que proporciona la funcionalidad extendida para interactuar con Java Servlets, al tiempo que implementa varias especificaciones técnicas de la plataforma Java: JavaServer Pages (JSP), Java Expression Language (Java EL) y WebSocket..



Install Apache Tomcat



The screenshot shows a web browser window with the URL tomcat.apache.org/download-10.cgi. The page is titled "Apache Tomcat®" and features the Apache logo. On the left, there's a sidebar with links for "Community OVER CODE", "Apache Tomcat" (Home, Taglibs, Maven Plugin), "Download" (Which version?, Tomcat 11 (alpha), Tomcat 10, Tomcat 9, Tomcat 8, Tomcat Migration Tool for Jakarta EE, Tomcat Connectors), and "Quick Navigation" (KEYS, 10.1.24, Browse, Archives). The main content area is titled "Tomcat 10 Software Downloads" and contains text about the move from Java EE to Jakarta EE, migration tools, and release integrity instructions.

Apache Tomcat®

Tomcat 10 Software Downloads

Welcome to the Apache Tomcat® 10.x software download page. This page provides download links for obtaining the latest version of Tomcat 10.1.x software, as well as links to the archives of older releases.

Unsure which version you need? Specification versions implemented, minimum Java version required and lots more useful information may be found on the '[which version?](#)' page.

Users of Tomcat 10 onwards should be aware that, as a result of the move from Java EE to Jakarta EE as part of the transfer of Java EE to the Eclipse Foundation, the primary package for all implemented APIs has changed from `javax.*` to `jakarta.*`. This will almost certainly require code changes to enable applications to migrate from Tomcat 9 and earlier to Tomcat 10 and later. A [migration tool](#) has been developed to aid this process.

Quick Navigation

[KEYS](#) | [10.1.24](#) | [Browse](#) | [Archives](#)

Release Integrity

You **must verify** the integrity of the downloaded files. We provide OpenPGP signatures for every release file. This signature should be matched against the [KEYS](#) file which contains the OpenPGP keys of Tomcat's Release Managers. We also provide SHA-512 checksums for every release file. After you download the file, you should calculate a checksum for your download, and make sure it is the same as ours.

Install Apache Tomcat

The screenshot shows a web browser window with the title "Apache Tomcat® - Apache Tomcat". The URL in the address bar is "tomcat.apache.org/download-10.cgi". On the left, there's a sidebar with links for "Archives", "Documentation" (including Tomcat 11.0 (alpha), 10.1, 9.0, 8.5, Upgrading, Connectors, Native 2, 1.3, 1.2, Wiki, Migration Guide, Presentations, Specifications), and "Problems?" (Security Reports, Find help). The main content area shows a message about mirrors and a download progress bar for "apache-tomcat-10.1.24.exe" (13.5 MB, Done). Below that, it says "10.1.24" and "Please see the [README](#) file for packaging information. It explains what every distribution contains." Under "Binary Distributions", there's a list of core distributions:

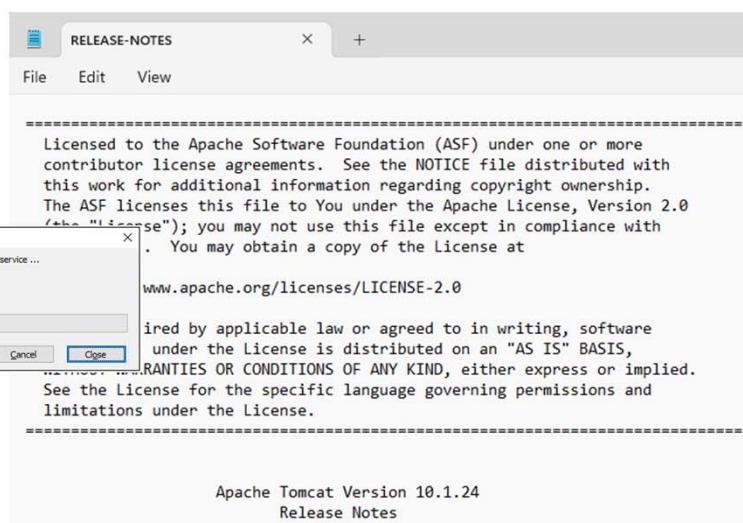
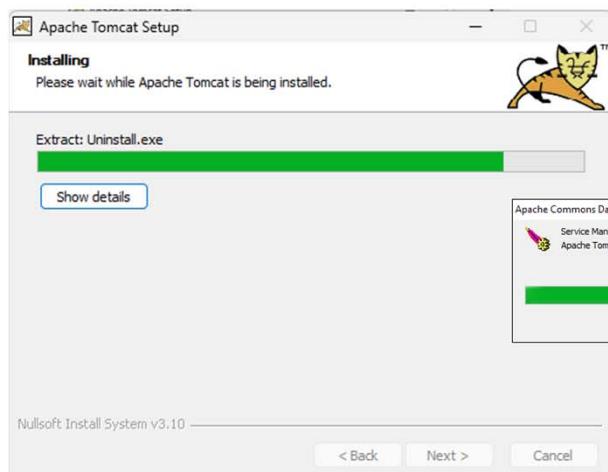
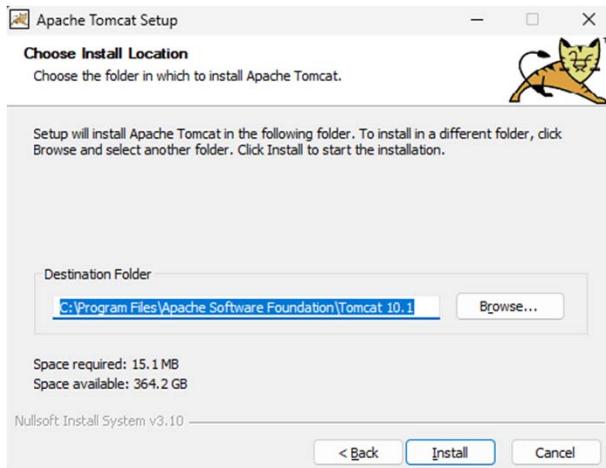
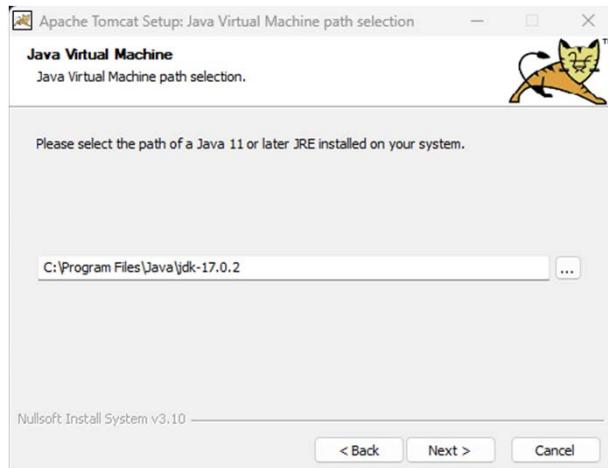
- Core:
 - [zip \(pgp, sha512\)](#)
 - [tar.gz \(pgp, sha512\)](#)
 - [32-bit Windows zip \(pgp, sha512\)](#)
 - [64-bit Windows zip \(pgp, sha512\)](#)
 - [32-bit/64-bit Windows Service Installer \(pgp, sha512\)](#)

Install Apache Tomcat

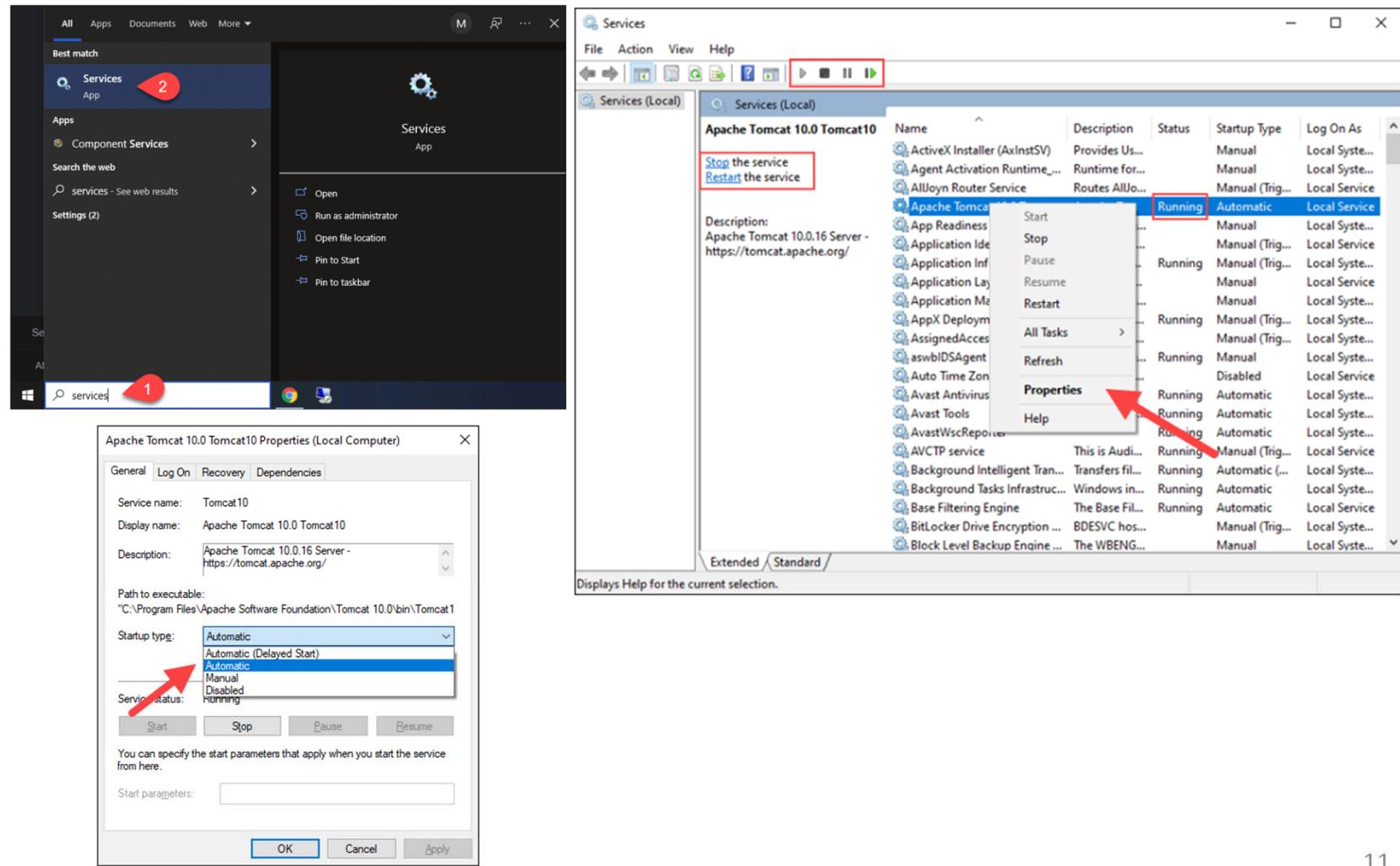
The image displays four windows from the Apache Tomcat Setup wizard:

- Welcome to Apache Tomcat Setup**: A welcome screen with instructions to close other applications before starting setup. It includes a note about updating system files and a "Click Next > to continue." button.
- License Agreement**: A screen showing the Apache License Version 2.0, January 2004, and the TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION. It features a "I Agree" checkbox and "Next >" and "Cancel" buttons.
- Choose Components**: A screen where users can select components to install. A dropdown menu shows "Full" selected, and a list includes Tomcat, Start Menu Items, Documentation, Manager, Host Manager, and Examples. A red arrow points to the dropdown menu. A "Description" tooltip is shown over the "Tomcat" item. A note says "Space required: 19.7 MB".
- Configuration Options**: A screen for basic configuration. It shows fields for Server Shutdown Port (-1), HTTP/1.1 Connector Port (8080), Windows Service Name (Tomcat10), and Create shortcuts for all users (unchecked). Under Tomcat Administrator Login (optional), it shows User Name (phoenixnap) and Password (redacted). Roles are set to admin-gui,manager-gui. A red box highlights the User Name field. "Next >" and "Cancel" buttons are at the bottom.

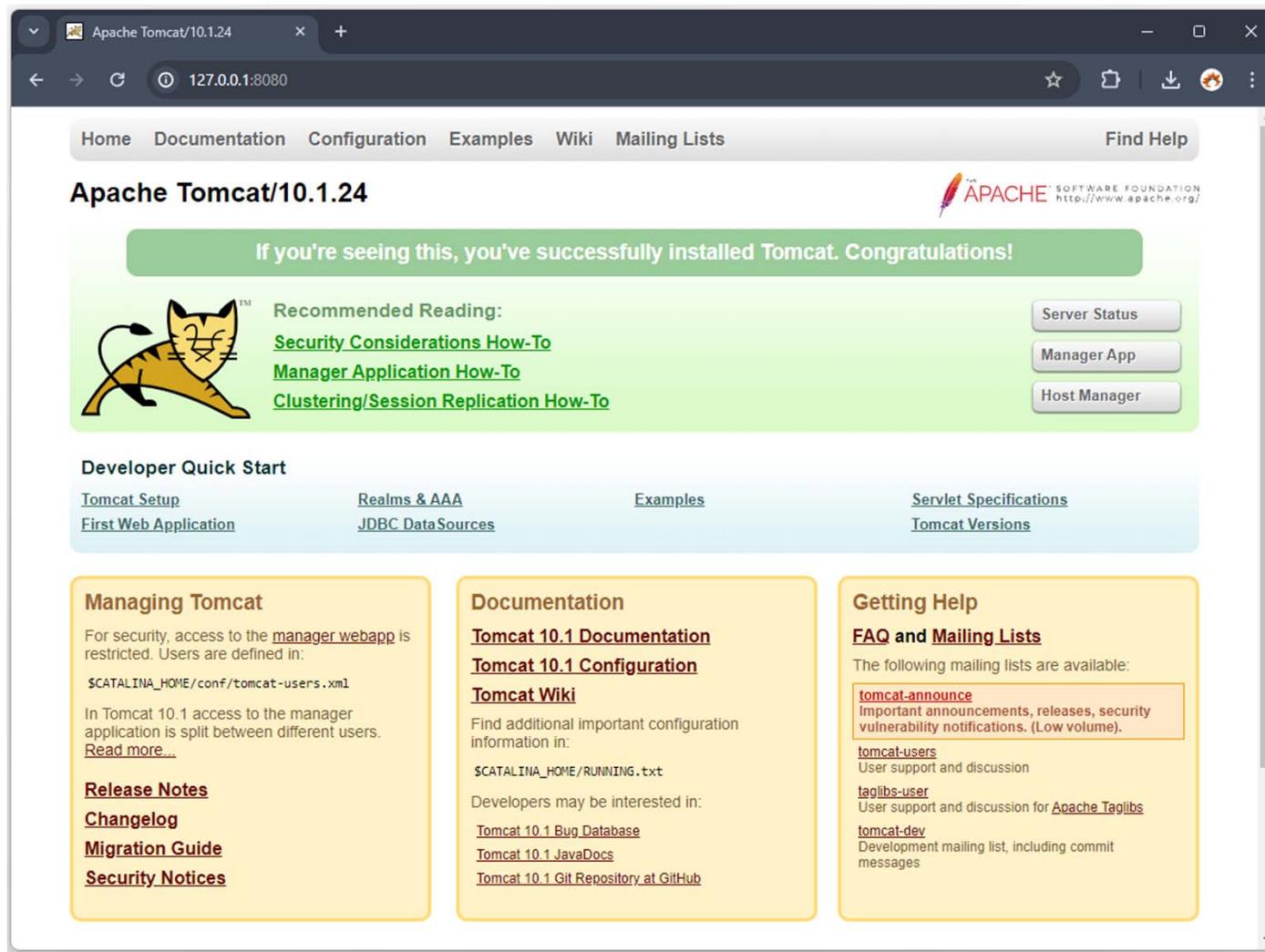
Install Apache Tomcat



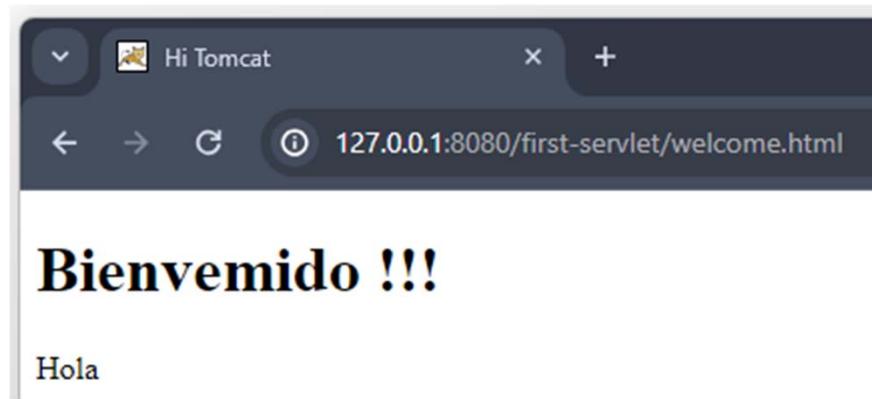
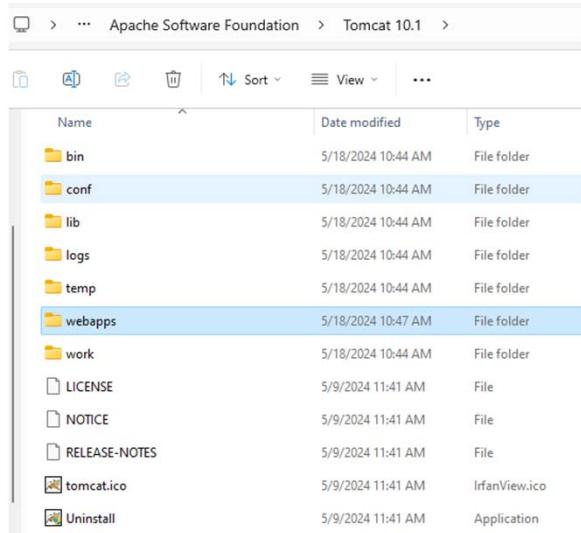
Install Apache Tomcat



Install Apache Tomcat



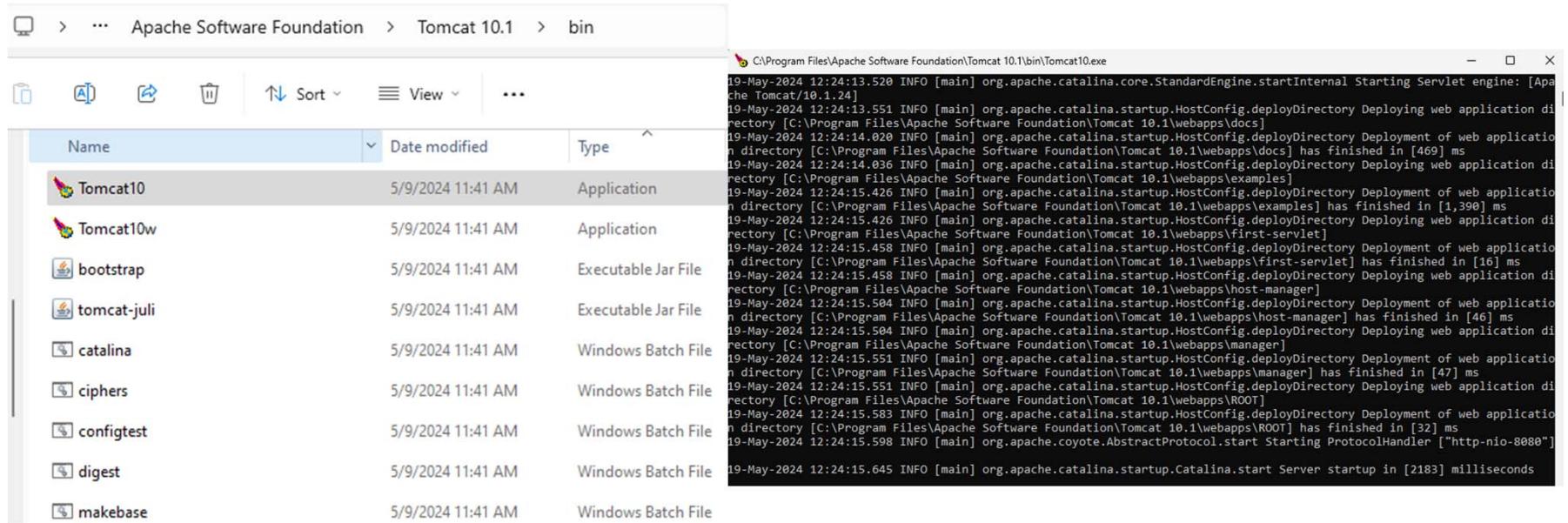
Apache Tomcat Test



An IDE interface showing the 'welcome.html' file from the 'first-servlet' web application. The code is as follows:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Hi Tomcat</title>
</head>
<body>
    <h1>Bienvenido !!!</h1>
    <p>Hola</p>
</body>
</html>
```

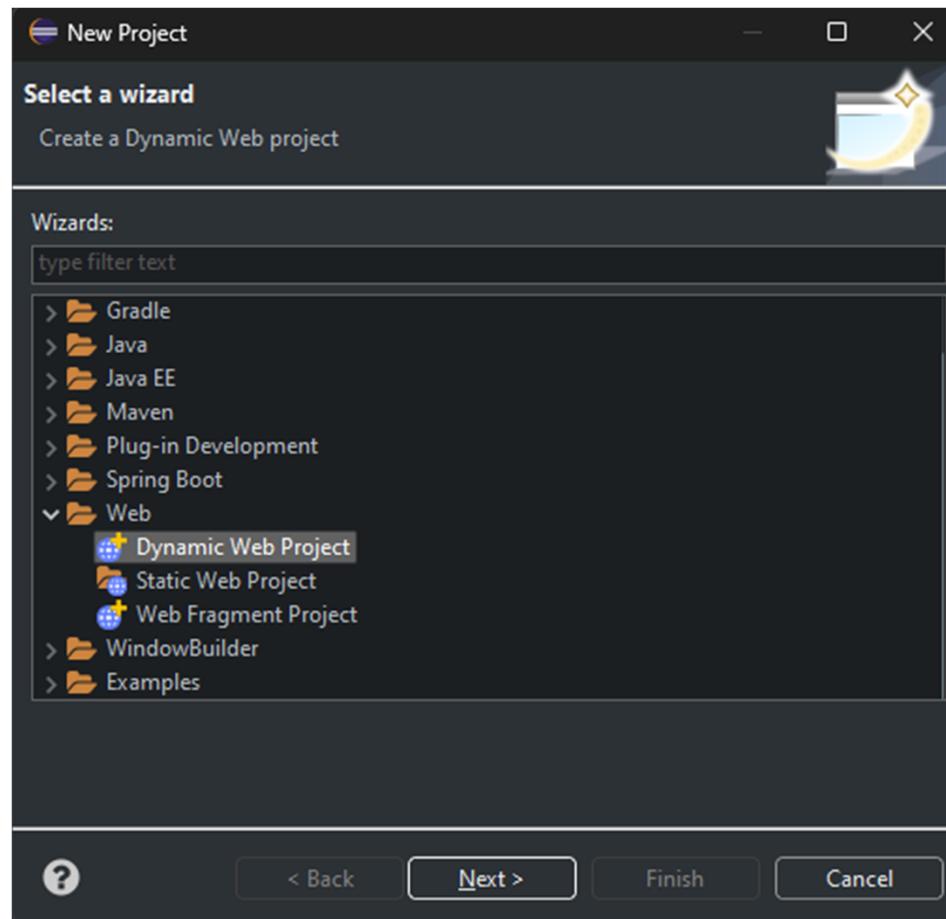
Apache Tomcat Test



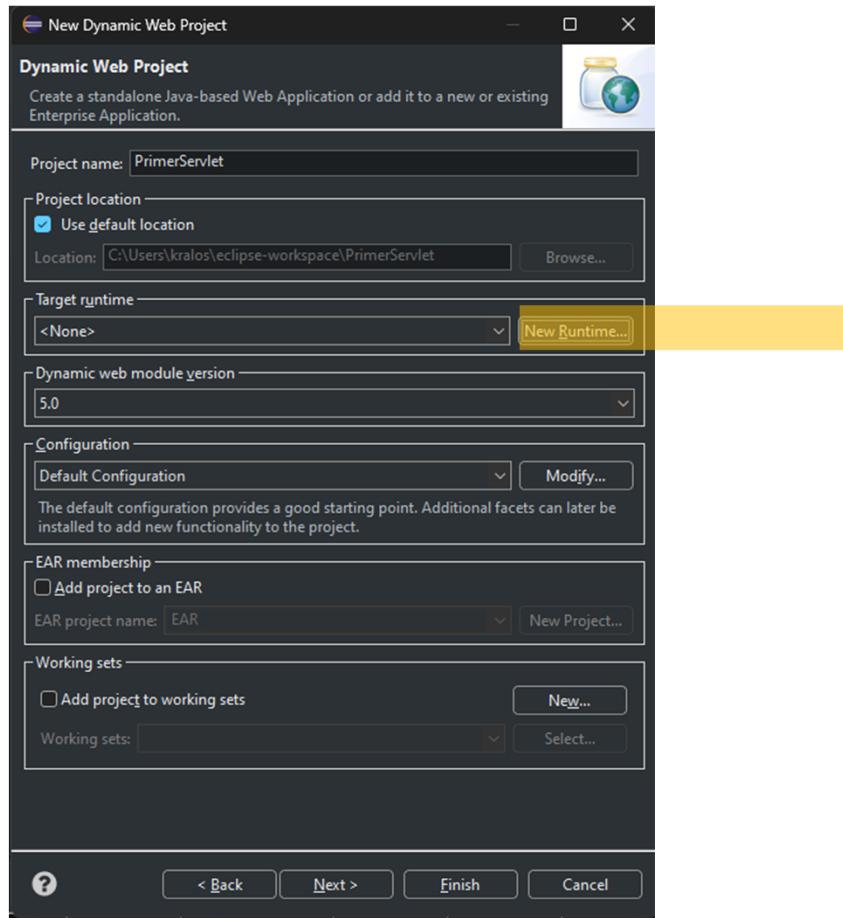
Tecnología JSP (JavaServer Pages)

- La tecnología JavaServer Pages permite generar contenido Web dinámico como, por ejemplo, archivos HTML, DHTML, XHTML y XML, para incluirlos en una aplicación Web.
- Cuando se despliega un archivo JSP en un contenedor de servlets, este se procesa previamente. Esto contrasta con JavaScript™ en el lado del cliente (dentro de códigos <SCRIPT>), que se ejecuta en un navegador.

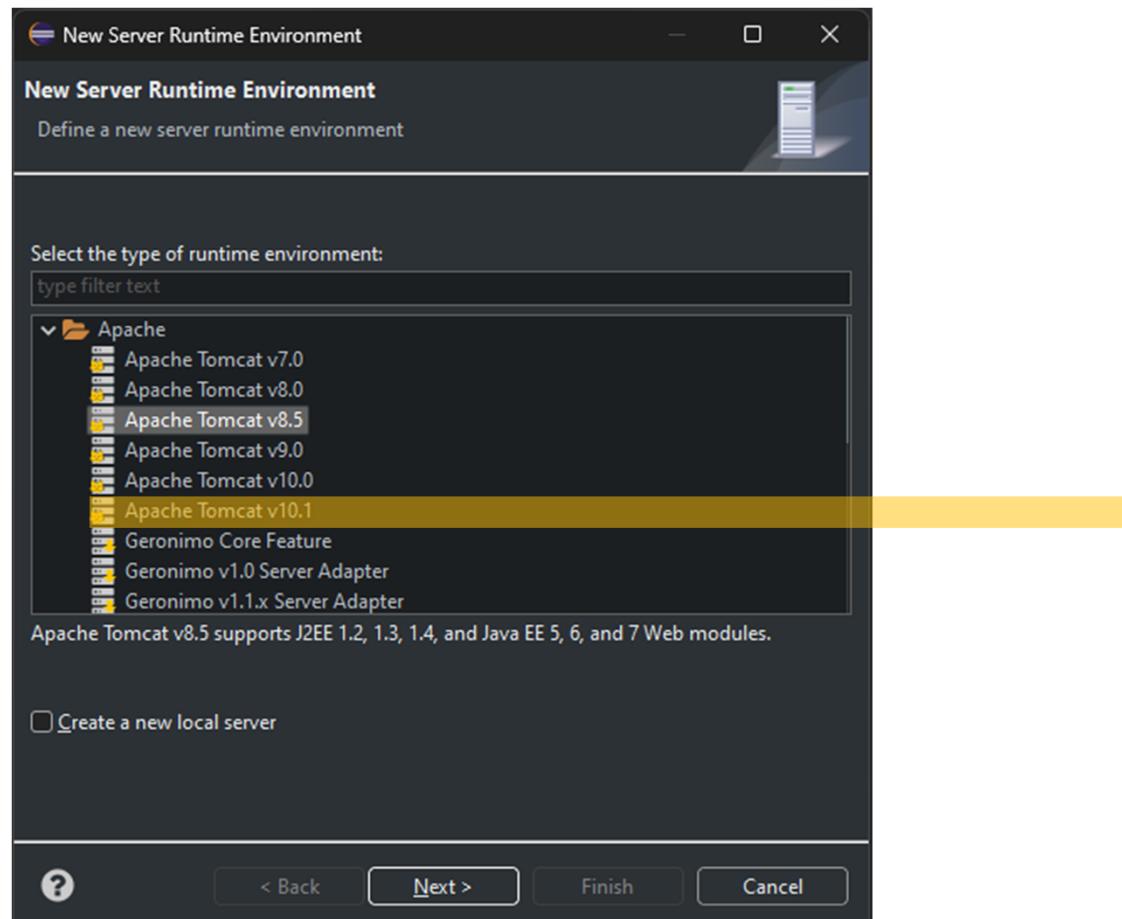
Primer Servlet {IDE Eclipse}



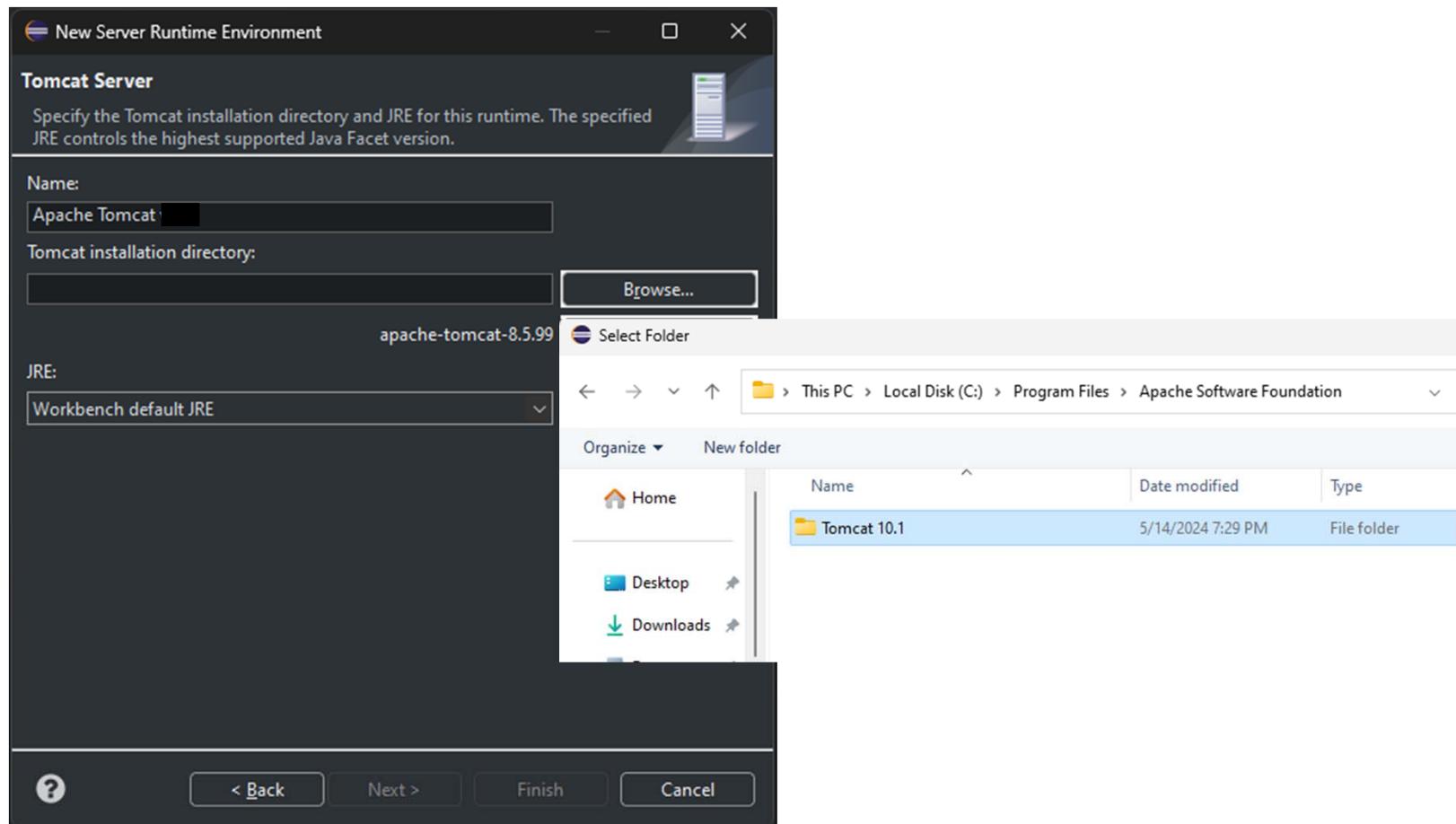
Primer Servlet {IDE Eclipse}



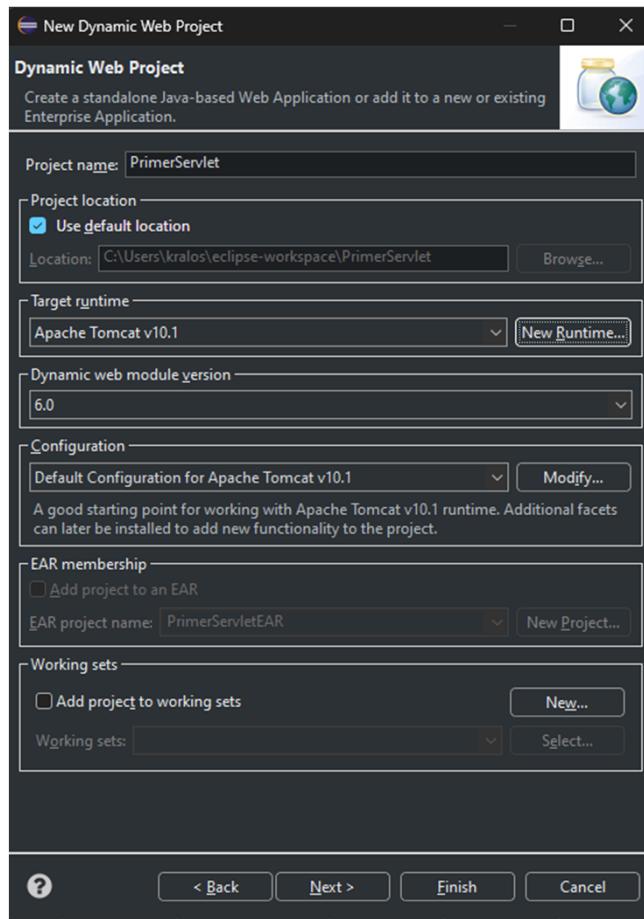
Primer Servlet {IDE Eclipse}



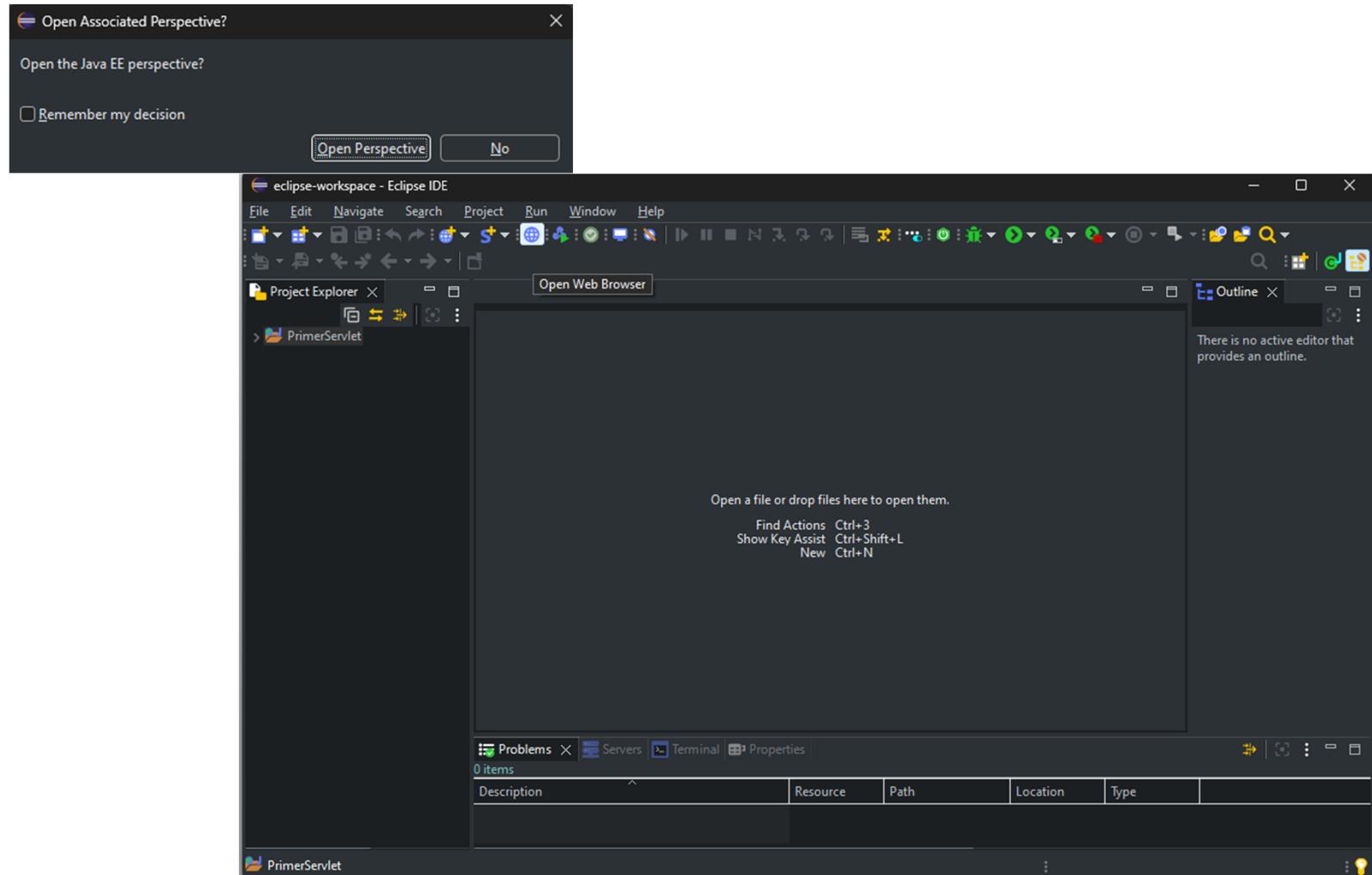
Primer Servlet {IDE Eclipse}



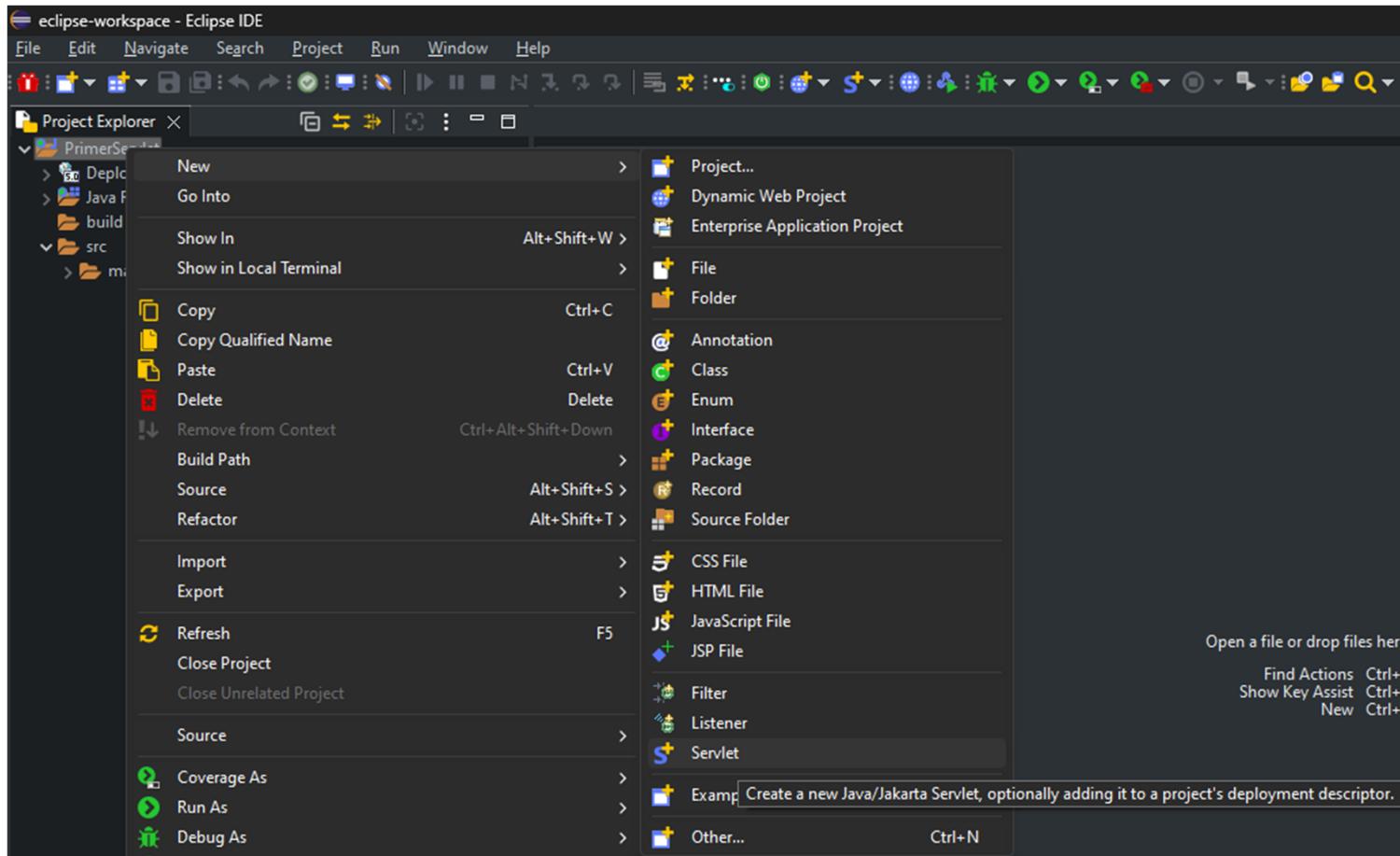
Primer Servlet {IDE Eclipse}



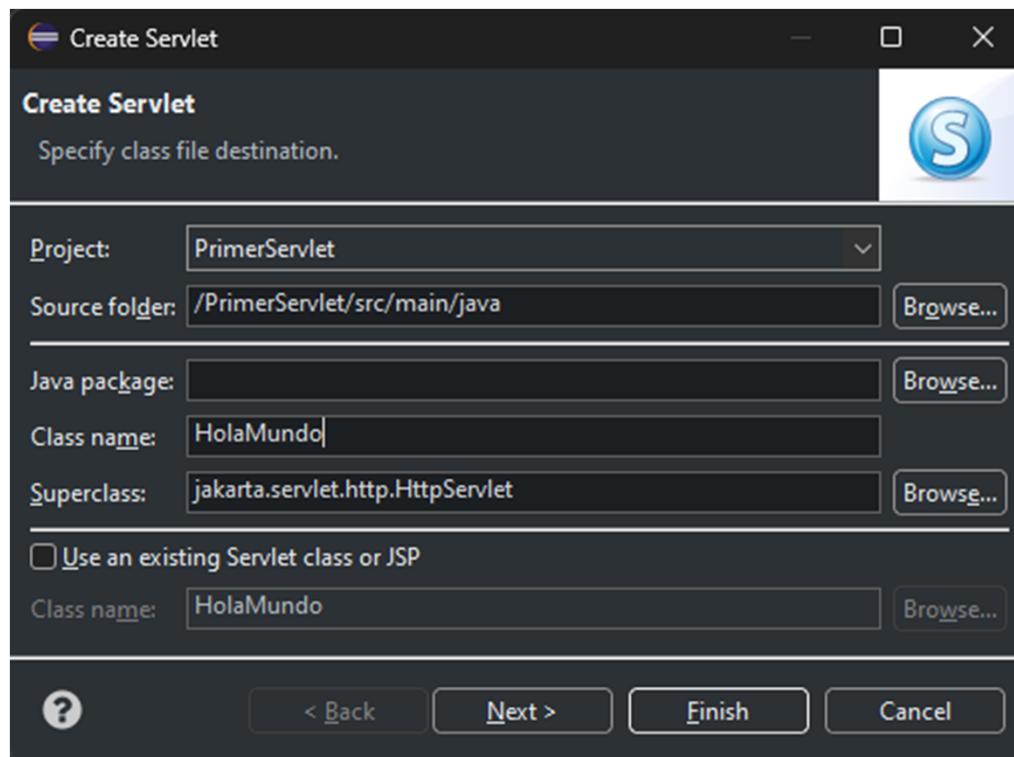
Primer Servlet {IDE Eclipse}



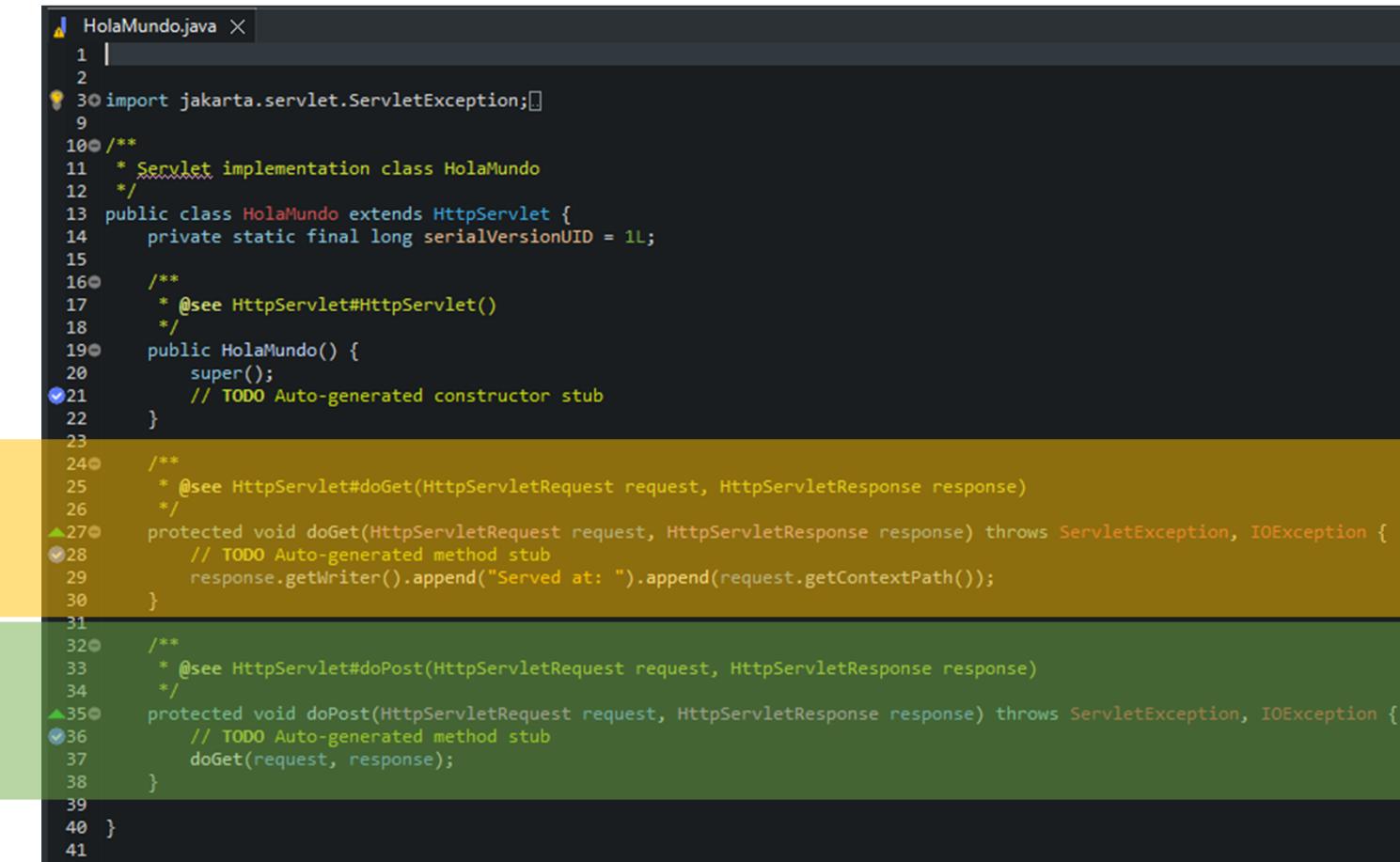
Primer Servlet {IDE Eclipse}



Primer Servlet {IDE Eclipse}



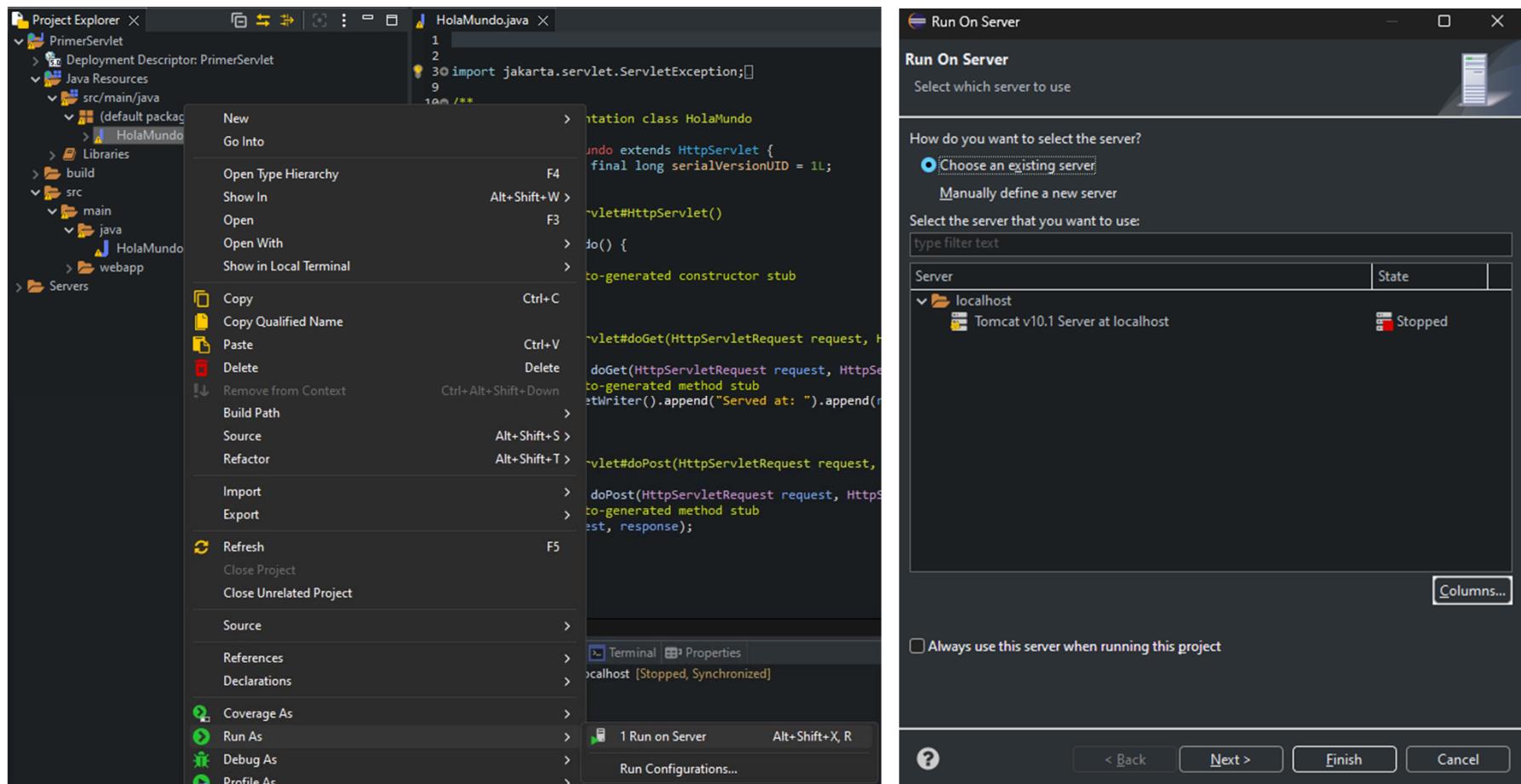
Primer Servlet {IDE Eclipse}



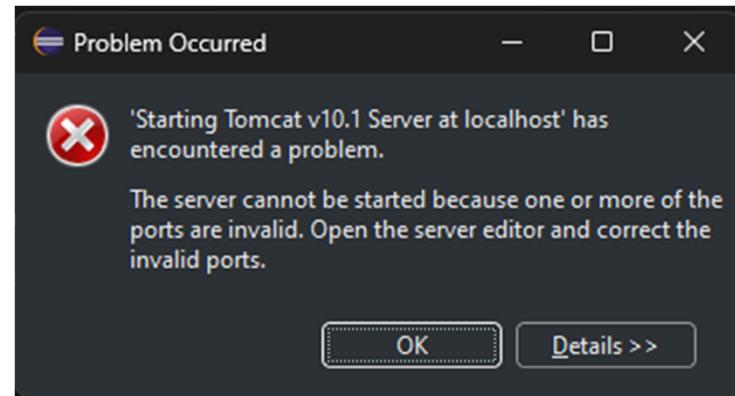
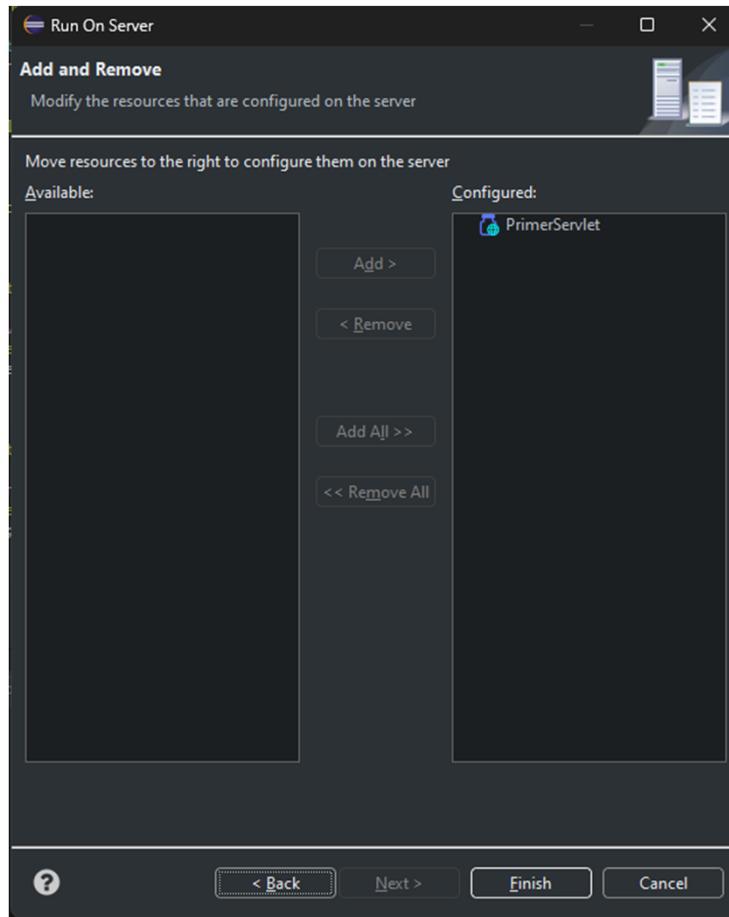
The screenshot shows the Eclipse IDE interface with the Java file 'HolaMundo.java' open. The code is a simple servlet implementation. The first few lines import the necessary package and start the class definition. It includes annotations for the constructor and methods. The 'doGet' method is implemented to return the context path. The 'doPost' method is present but contains a TODO comment and a call to 'doGet'. The code uses standard Java syntax with annotations for the servlet interface.

```
1 | 
2 | 
3 ⚠ import jakarta.servlet.ServletException;✉
4 | 
5 ⚠ /**
6 ⚠  * Servlet implementation class HolaMundo
7 ⚠ */
8 | 
9 public class HolaMundo extends HttpServlet {
10    private static final long serialVersionUID = 1L;
11 | 
12    /**
13     * @see HttpServlet#HttpServlet()
14     */
15    public HolaMundo() {
16        super();
17        // TODO Auto-generated constructor stub
18    }
19 | 
20    /**
21     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
22     */
23    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
24        // TODO Auto-generated method stub
25        response.getWriter().append("Served at: ").append(request.getContextPath());
26    }
27 | 
28    /**
29     * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
30     */
31    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
32        // TODO Auto-generated method stub
33        doGet(request, response);
34    }
35 | 
36    /**
37     * @see HttpServlet#doPut(HttpServletRequest request, HttpServletResponse response)
38     */
39    protected void doPut(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
40        // TODO Auto-generated method stub
41    }
42 | }
```

Primer Servlet {IDE Eclipse}



Primer Servlet {IDE Eclipse}



Primer Servlet {IDE Eclipse}

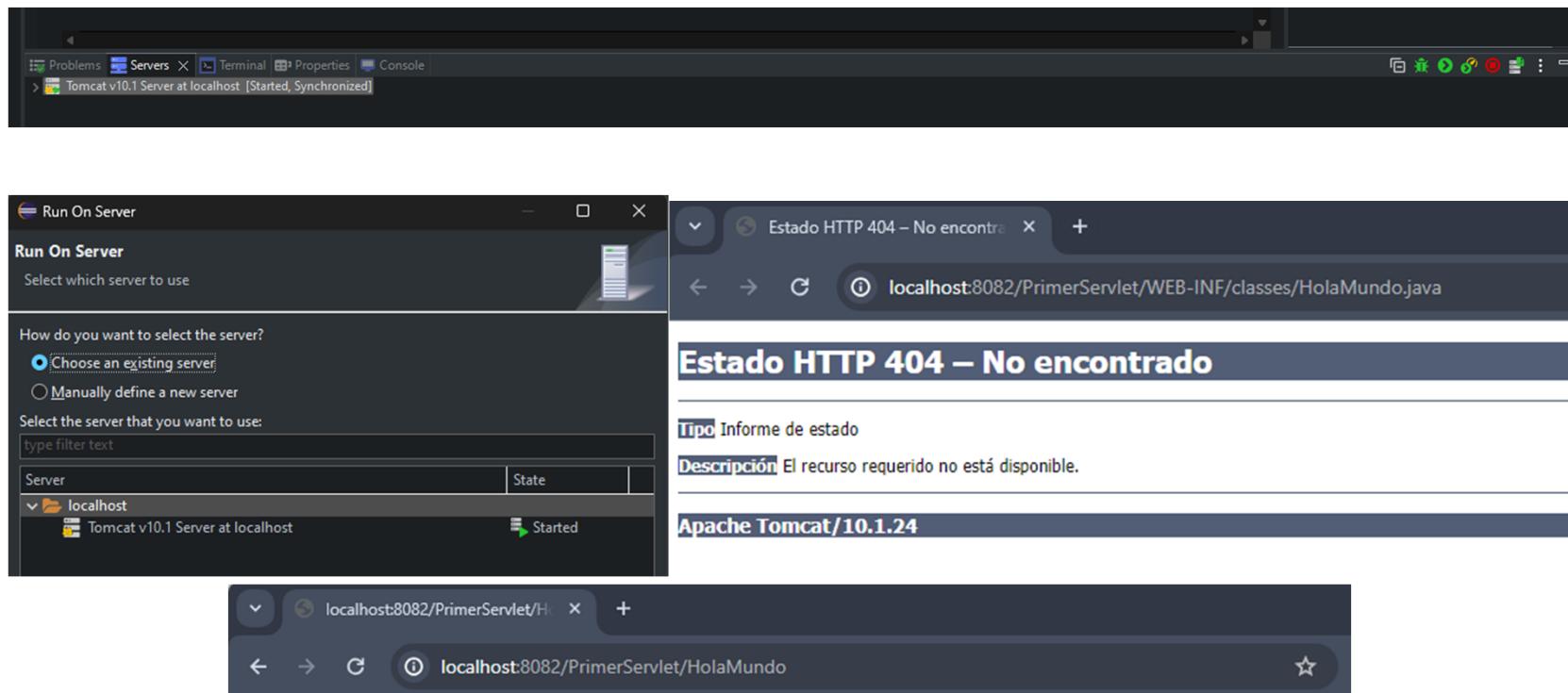
The screenshot shows the Eclipse IDE interface with the following components:

- Java Editor:** Displays a portion of a Java file named `HolaMundo.java` containing the following code:

```
35@    protected void doPost(HttpServletRequest request, HttpServletResponse response) {  
36@        // TODO Auto-generated method stub  
37@        doGet(request, response);  
38@    }  
39@  
40@ }  
41@
```
- Servers View:** Shows a Tomcat v10.1 Server at localhost [Stopped, Synchronized].
- Ports Table:** A small table showing port mappings.

Port Name	Port Number
Tomcat admin port	8081
HTTP/1.1	8082
- Server Configuration Overview:** A detailed configuration dialog for the Tomcat v10.1 Server at localhost.
 - General Information:** Set Server name to Tomcat v10.1 Server at localhost, Host name to localhost, and Runtime Environment to Apache Tomcat v10.1.
 - Ports:** Shows the same port mappings as the small table above, with the entry for port 8080 highlighted in yellow. An orange arrow points from the highlighted row in the small table to the corresponding row in the large table.
 - MIME Mappings:** A section for defining MIME types for various file extensions.

Primer Servlet {IDE Eclipse}



Hola Mundo

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Referencias

- Marijan, B. (2022, February 17). How to install Apache Tomcat on Windows. Knowledge Base by phoenixNAP; phoenixNAP. <https://phoenixnap.com/kb/install-tomcat-windows>
- *Que es un Contenedor de Servlets. Instalación Apache Tomcat.* (n.d.). Edu4java.com. Retrieved May 19, 2024, from <http://www.edu4java.com/es/servlet/servlet1.html>
- *Crear un Servlet.* (2019, August 5). Tutoriales de programación; Rosa. <https://rosamarfil.es/tutoriales/programacion/crear-un-servlet/>