## MICROSOFT FRONT PAGE TOOL

**Microsoft FrontPage** (full name Microsoft Office FrontPage) is a WYSIWYG (What You See is What You Get) HTML editor and website administration tool from Microsoft for the Microsoft Windows line of operating systems. It was branded as part of the Microsoft Office suite from 1997 to 2003.

It is mainly used for designing, creating and managing websites. Users could organize and structure their websites using a navigation view, manage files and links, create site maps. It also offers pre-designed themes and templates that users could customize to create a consistent look and feel to their websites. It also allows the creation of web forms and interactive features. Making it suitable for building contact forms, feedback forms and simple interactive web applications.



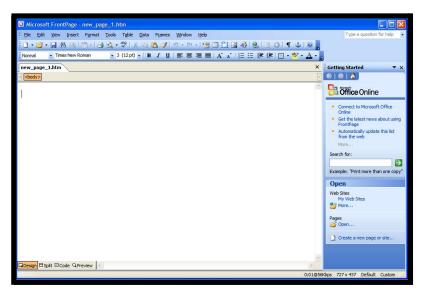


Figure: Microsoft Front Page

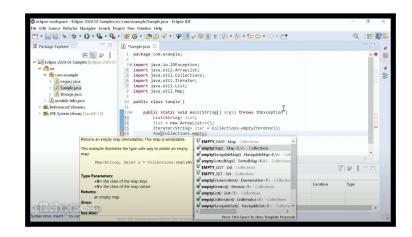
Some features that are part of the last version of FrontPage include:

- ☐ Help navigating through your site, and seeing your file structure, visually
- ☐ Built-in features for HTML, CSS, and Java / JavaScript (partial)
- ☐ Built in image editor (MS Image Composer)
- □ Point-and-click functionality for common tools, like mouseovers, e-mail forms, and hit counts
- ☐ Simple to use with previous knowledge of Office products
- ☐ Integrated data display with Office products like Access and Excel
- ☐ Support for CSS-based themes (like ASP.NET master pages)
- ☐ When you change the URL of a page, all the links to that page are dynamically changed
- ☐ Task-assignment for team projects

## **ECLIPSE SOFTWARE**

Eclipse is an integrated development environment (IDE) used in computer programming. It contains a base workspace and an extensible plug-in system for customizing the environment. It is the second-most-popular IDE for Java development. Eclipse is written mostly in Java and its primary use is for developing Java applications, but it may also be used to develop applications in other programming languages via plug-ins including Ada,ABAP, C, C++, C#, Clojure, COBOL, D, Erlang, Fortran, Groovy, Haskell, JavaScript, Julia, Lasso, Lua, NATURAL, Perl, PHP, Prolog, Python, R, Ruby (including Ruby on Rails framework), Rust, Scala, and Scheme. It can also be used to develop documents with LaTeX (via a TeXlipse plug-in) and packages for the software Mathematical Development environments include the Eclipse Java development tools (JDT) for Java and Scala, Eclipse CDT for C/C++, and Eclipse PDT for PHP, among others.





The Eclipse IDE (Integrated Development Environment) is known for its versatility, extensibility, and strong support for a wide range of programming languages. Here are some of its specialties

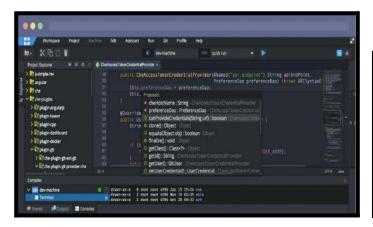
- 1. <u>Cross-Language Support</u>: Eclipse supports multiple programming languages, including but not limited to Java, C/C++, Python, PHP, JavaScript, and more. This allows developers to work on various projects using different languages within a single integrated environment.
- 2. <u>Modularity and Extensibility</u>: Eclipse is built on a modular architecture, making it highly extensible. Developers can easily add plugins and extensions to tailor the IDE to their specific needs, integrating various tools and capabilities seamlessly into the development environment.
- 3. <u>Rich Feature Set</u>: Eclipse offers a comprehensive set of features for software development, including code editing with syntax highlighting, refactoring tools, integrated debugging, version control integration (e.g., Git), testing frameworks, and

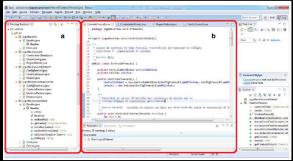
automatic code generation. It provides a holistic workspace for development tasks.

- 4. <u>Integrated Development Environment</u>: Eclipse provides a unified and cohesive environment for the entire software development lifecycle. It covers all aspects, from writing and editing code to debugging, testing, and deployment. Developers can manage projects efficiently and collaborate with teams effectively.
- 5. <u>Open Source Philosophy</u>: Eclipse is open source, promoting collaboration, transparency, and continuous improvement. This fosters innovation and ensures that developers have access to a high-quality, evolving tool without any proprietary constraints.
- 6. <u>Cross-Platform Compatibility:</u> Eclipse is designed to work on various operating systems, including Windows, macOS, and Linux, making it a versatile choice for developers regardless of their preferred platform.
- 7. <u>Community and Ecosystem</u>: Eclipse has a vast and active community that contributes to its development and provides a wealth of plugins and tools. The Eclipse Marketplace allows users to discover and install a wide array of extensions, enabling customization and enhancement of the IDE to meet specific project requirements.

Eclipse supports development for Tomcat, Glass Fish and many other servers and is often capable of installing the required server (for development) directly from the IDE. It supports remote debugging, allowing a user to watch variables and step through the code of an application that is running on the attached server.

The Eclipse Web Tools Platform (WTP) project is an extension of the Eclipse platform with tools for developing Web and Java EE applications. It includes source and graphical editors for a variety of languages, wizards and built-in applications to simplify development, and tools and APIs to support deploying, running, and testing apps.



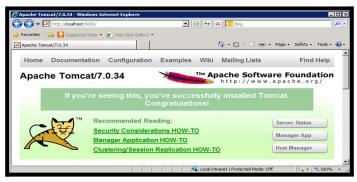


## APACHE TOMCAT OPEN-SOURCE SOFTWARE

Apache Tomcat (called "Tomcat" for short) is a free and open-source implementation of the Jakarta Servlet, Jakarta Expression Language, and WebSocket technologies. It provides a "pure Java" HTTP web server environment in which Java code can also run. Thus it is a Java web application server, although not a full JEE application server.

Tomcat is known for its lightweight and efficient architecture, making it a preferred choice for hosting Java web applications in a variety of environments. It supports the latest Java Servlet and JSP specifications, ensuring compatibility with modern web development practices. Additionally, Tomcat is highly customizable and can be extended using various plugins and configurations to suit the specific needs of different applications.



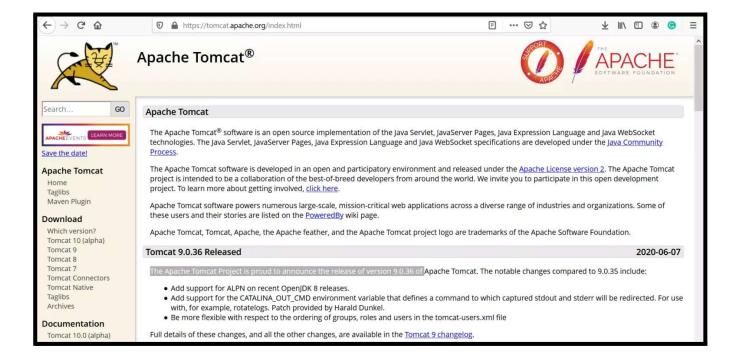


One of its key advantages is its performance, making it suitable for both small-scale projects and large enterprise applications. Tomcat's active community and extensive documentation further contribute to its popularity, making it a go-to solution for Java developers

Tomcat, has several special features and characteristics that set it apart in the realm of web servers and servlet containers:

- 1. <u>Open Source</u>: Tomcat is open-source software distributed under the Apache License. This means it is freely available for anyone to use, modify, and distribute, fostering a vibrant and collaborative community of developers.
- 2. <u>Java-Centric</u>: Tomcat is specifically designed to execute Java web applications, including Java Server Pages (JSP) and Java Servlets. It serves as a reliable and efficient platform for hosting Java-based web applications.
- 3. <u>Embeddable</u>: Tomcat can be embedded within other Java applications, providing a convenient way to include web server functionality without the need for a separate server installation. This is particularly useful for microservices and lightweight applications.
- 4. **Strong Community Support**: Tomcat has a robust and active user community,

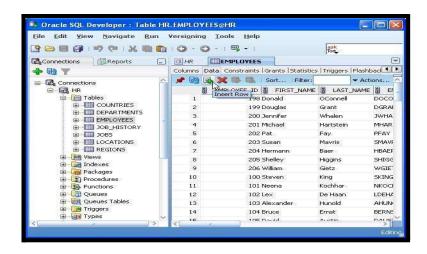
- which translates into a wealth of documentation, tutorials, and third-party extensions. This extensive support network ensures that users can find solutions to common issues and access a broad range of resources.
- 5. <u>Security Features</u>: Tomcat offers robust security features, including user authentication, access control, and the ability to configure SSL/TLS for secure communications. It helps developers implement security best practices in their applications.



## **Oracle SQL Developer**

Oracle SQL Developer is a free, integrated development environment that simplifies the development and management of Oracle Database in both traditional and Cloud deployments. SQL Developer offers complete end-to-end development of your PL/SQL applications, a worksheet for running queries and scripts, a DBA console for managing the database, a reports interface, a complete data modeling solution, and a migration platform for moving your 3<sup>rd</sup> party databases to Oracle. SQL Developer provides powerful editors for working with SQL, PL/SQL, Stored Java Procedures, and XML. Run queries, generate execution plans, export data to the desired format (XML, Excel, HTML, PDF, etc.), execute, debug, test, and document your database programs, and much more with SQL Developer.





It offers a range of special features and capabilities that make it a popular choice for database developers and administrators. Here are some of its notable features:

- 1. <u>Graphical User Interface (GUI):</u> Oracle SQL Developer provides an intuitive and user-friendly graphical interface that allows users to interact with Oracle databases without needing to write complex SQL queries manually. It simplifies database management and development tasks.
- 2. <u>Code Editor</u>: SQL Developer includes a robust code editor with features like syntax highlighting, code completion, code templates, and error checking. This makes writing and debugging SQL code more efficient and less error-prone.
- 3. <u>PL/SQL Debugger:</u> It offers a built-in PL/SQL debugger, which allows developers to step through PL/SQL code, set breakpoints, inspect variables, and identify and fix issues in their stored procedures, functions, and triggers.
- 4. <u>Database Browser</u>: SQL Developer provides a comprehensive database browser that enables users to explore database objects such as tables, views, indexes, and procedures. You can easily navigate through your database schema and view

- object details.
- 5. **Query Builder:** The tool includes a visual query builder that simplifies the creation of SQL queries by dragging and dropping tables, specifying joins, and selecting columns. This is particularly helpful for users who are not proficient in writing SQL queries.
- 6. <u>Data Modeling:</u> SQL Developer supports data modeling and design capabilities, allowing you to create and modify entity-relationship diagrams (ERDs). It helps in designing and maintaining database schemas.

