Oracle JDeveloper provides an extremely productive development environment that covers the full development lifecycle and integrates features addressing the multitude of technologies used for building Java-based enterprise applications.

**Integrated Development Environment**

Oracle JDeveloper integrates development features for Java, web, mobile, web services (REST & SOAP) and database into a single development tool. The various artifacts share the same project structure and development experience, reducing the learning curve and simplifying the development process of composite applications that leverage a multitude of technologies.

In addition Oracle JDeveloper acts as the development environment for the various components of the Oracle Fusion Middleware offering including the Oracle SOA Suite, Oracle WebCenter Portal and Oracle’s BI solutions.

**Full Lifecycle Support**

Oracle JDeveloper covers the full development lifecycle from initial design and analysis, through the coding and testing phases, all the way to deployment. Developers can design, generate, and visualize their code with UML, Java and database diagrams. An advanced coding environment and declarative and visual editors facilitate faster code development. Integrated testing, profiling, and code auditing features ensure the quality of the applications. Integration with versioning, build, and deployment tools enable packaging and deployment of applications either through the IDE or through automated processes.

Oracle JDeveloper enhances team development through integrated with a host of version management solutions as well as integration with the Oracle Developer Cloud Service for full lifecycle tracking and team collaboration.

**Visual And Declarative**

Oracle JDeveloper focuses on increasing developers’ productivity by offering a visual and declarative approach to application development. A combination of visual editors, property inspectors, structure panes, and editing dialogs reduce tedious coding. These declarative
features provide a simpler way to define the components that construct an application. The application’s code is always accessible for direct manipulation as well. Changes can be made by either the declarative means or directly in the code and are reflected in both simultaneously.

![Image](image.png)

Figure 1. Visual and Declarative Development

**Productivity Boosting Development Framework**

Oracle JDeveloper is the development environment for the Oracle Application Development Framework (Oracle ADF). Oracle ADF is an end-to-end development framework, built on top of the Java Platform Enterprise Edition, and offering unparalleled productivity. The framework provides integrated infrastructure solutions for the various layers of the application including data access, business services development, a controller layer, rich web, mobile and desktop interfaces, data binding, and security.

Oracle JDeveloper offers features that simplify the development of Oracle ADF based application through its visual and declarative editors.
Complete Development Tool

Oracle JDeveloper integrates the full set of technologies needed for developing composite applications with specific features that address the following technologies:

Java

Oracle JDeveloper provides a complete development environment for both Java SE and Java EE. Advanced code editors with code insight, code completion, refactoring, code assist, live code auditing, quick Javadoc and a host of other shortcuts accelerate the coding experience. State of the art debugger, code auditor, profilers, and JUnit-based testing integration ensure the delivery of high quality code. JDeveloper includes visual editors, declarative dialogs, and modelers that help create Java EE artifacts quickly.

With the embedded WebLogic Server developers can run, test and debug their Java EE applications directly inside the development environment.

Database

JDeveloper integrates a full database development environment for both Oracle and non-Oracle databases. A database modeler enables forward and reverse modeling as well as reporting for relational databases structure. In addition the integrated SQL Developer capabilities provide database browsing, object definition and manipulation as well as query execution. An integrated PL/SQL editor offers advanced coding and debugging capabilities for PL/SQL stored procedures inside the Oracle database.

Web

JDeveloper includes a visual HTML 5 editor for Web page design with simple drag and drop gestures. A JavaScript editor with code insight and refactoring capabilities and a CSS 3 editor helps with achieving the right design for rich Web pages. An HTTP Monitor can track the network traffic between the browser and server.

For Java Web developers JDeveloper, extends the visual HTML editor to support JSP and JSF visual editing, as well as providing code insight while coding these Java artifacts. JDeveloper also includes a JSF pageflow diagram and JSF configuration tools enabling easy definition of a controller layer.

Web Service SOAP and REST

JDeveloper simplifies the creation and consumption of web services. Declarative dialogs streamline publishing REST and SOAP web service from business logic stored in simple Java classes, EJBs and database procedures. Additional wizards help consume existing web services by analyzing their structure and generating proxy code or ADF data controls that simplify interaction with the services. Additional capabilities such as visual WSDL editor, top down Web services generation, XML Schema diagram and a web services tester further help integrate applications in an SOA architecture.

Mobile

Oracle JDeveloper enable development of both on-device and web mobile applications. Through integration with Oracle Mobile Application Framework, developers can build on-device iOS and Android applications directly from the JDeveloper IDE. Integration with platform specific SDK enables direct deployment and debugging to emulators and devices from inside Oracle JDeveloper.

Oracle Fusion Middleware
Oracle JDeveloper is the development environment for Oracle Fusion Middleware with specific extensions that cover Oracle SOA Suite, Oracle WebCenter Suite, and Oracle BI.

Diagrams allow developers to build BPM, BPEL and ESB processes, and a declarative editor provides an easy way to define business rules for the Oracle SOA Suite, all from within JDeveloper. Rich Web interfaces for BAM and Human Workflows can quickly be developed with Oracle ADF in JDeveloper.

Oracle WebCenter adds capabilities for development and consumption of portlets, integration with content repositories, and a host of Web 2.0 services to the list of features available in Oracle JDeveloper.

Integration with Oracle BI allows the definition of new reports and graphs on various sources of data as well as inclusion of these reports in existing Oracle ADF pages.

Summary

Oracle JDeveloper offers a complete solution for developers looking to increase their productivity building cutting edge enterprise Java applications.