

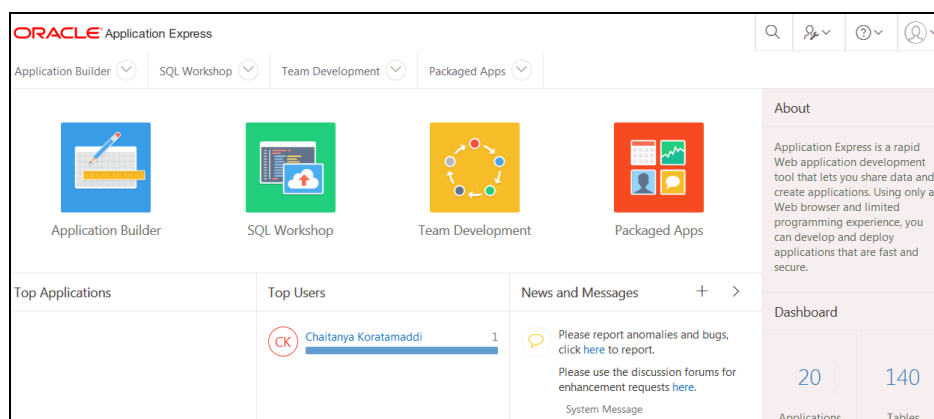
## APPLICATION EXPRESS

## ORACLE APPLICATION EXPRESS 5.0 **8.12**

### Key Features

- Fully supported no-cost feature of the Oracle Database
- Simple 2-Tier Architecture
- Develop desktop and mobile applications
- **100% Browser-based Development and Runtime**
- Very advanced Browser-based IDE
- Packaged Applications
- Runs everywhere Oracle Database runs

*Oracle Application Express is a declarative, rapid web application development tool for the Oracle Database. It is a fully supported, no cost option available with all editions of the Oracle Database. Oracle Application Express enables you to create database-centric Web applications that are reliable, scalable, and secure. Using only a web browser, and with limited programming experience, you can develop and deploy professional Web-based applications for desktops and mobile devices.*



**Figure 1: Application Express Development Home Page**

### Fully Supported no-cost Feature of the Oracle Database

Oracle Application Express is a fully supported, no cost option of the Oracle Database, and is installed by default in all editions of the Oracle Database. Oracle Application Express runs everywhere and anywhere Oracle Database runs. It is distributed with all editions of Oracle Database 11g and Oracle Database 12c. You can also download the latest Oracle Application Express software from the Oracle Technology Network at <http://otn.oracle.com/apex>.

## Key Benefits

- Modern Web Application Development made Easy
- Declarative framework for rapid application definition, maintenance, and enhancements
- Desktop and mobile Web application development made easier and faster
- Leverages SQL and PL/SQL skills and build applications that are reliable, scalable, and secure
- Improve developer productivity by using Page Designer
- Develop beautiful and responsive applications by using Universal Theme
- Flexible Deployment Options

## Simple Two-Tier Architecture

Oracle Application Express uses a simple architecture where pages are dynamically generated using metadata stored within the Oracle Database. There is no code generation or file based compilation. Once fully installed, a Uniform Resource Locator (URL) is defined for both developers and end users to access Oracle Application Express. Users require only a Web browser and the required URL. No additional client software is required. The Web Listener functions as a communications broker between the Web browser and the Oracle Application Express objects in the Oracle database, by mapping browser requests into database stored procedure calls.

You have a choice of three Web Listeners.

- Oracle REST Data Services, a Java based free tool and the preferred option for use with Oracle Application Express
- Embedded PL/SQL Gateway
- Oracle HTTP Server

## Multi-tenant Hosting

Oracle Application Express enables a single database to host large number of applications and users. Developers work in a dedicated work area called a Workspace to develop applications against one or more schemas. This flexible architecture enables a single database instance to act as a Platform as a Service (PaaS), providing a hosted Intranet capability within the organization, or hosted Internet service.

## Modern Web Application Development Made Easy

An Oracle Application Express application enables you to manage and display data from an Oracle database. Using Oracle Application Express, you can build a wide variety of applications ranging from small simplistic applications to large, complex, and multi-lingual applications. You build an application using the Application Builder. Using Application Builder, you can create two different types of applications: Database applications and Websheet applications. Database applications include both desktop and mobile applications. Websheet applications are similar to WIKIs and suited for community contributions.

**Application Development - It's all in the Browser**

To build, deploy, and run applications using Oracle Application Express, you do not need to install any client software. By simply using a browser, you log in to your Workspace, navigate to Application Builder and start building beautiful applications for desktops and mobile devices. End users need just a browser, application URL and their user credentials.

**Utilizing the Declarative Framework**

Oracle Application Express uses a declarative framework for web application development. That is, you specify what to do rather than how to do it. No code is generated or compiled. You interact with a wide variety of built-in wizards and property sheets to define your application.

**Short Learning Curve**

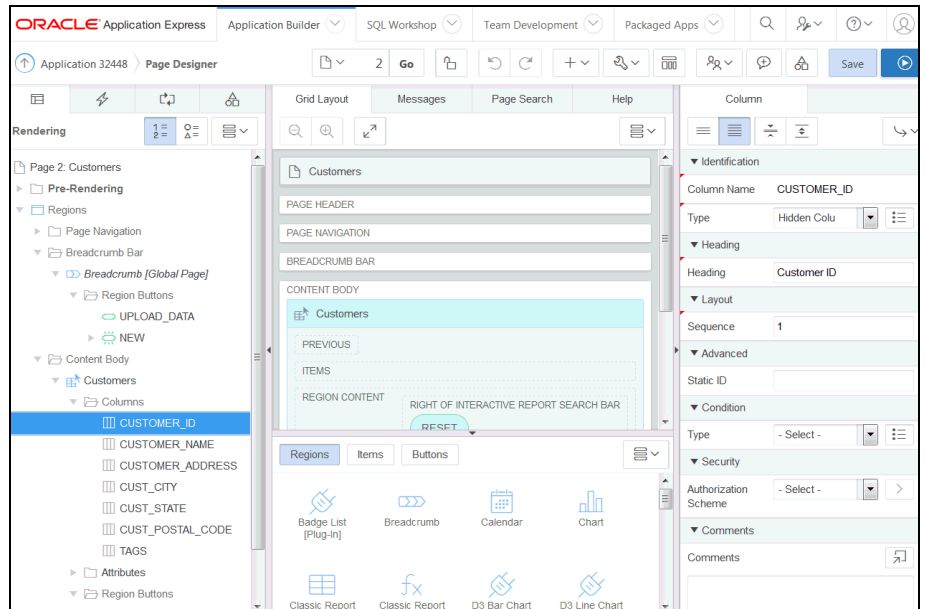
Oracle Application Express enables organizations to capitalize on their existing investment in SQL and PL/SQL skills. Few programming skills are required, and anyone can quickly learn to develop applications. With Oracle Application Express, applications are built faster, with fewer developers.

**Using the Advanced Browser-based IDE**

Oracle Application Express includes, Page Designer, a revolutionary browser-based IDE designed to greatly improve developer's productivity, allowing you to very quickly enhance and maintain pages within Application Express. The key features of Page Designer include:

- Cohesive user experience
- Better visual representation
- Intuitive drag and drop
- Enhanced code editor

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**Figure 2: Manage application pages using Page Designer**

### Building a better User Interface for your Applications

Oracle Application Express provides the new Universal Theme, which is an example of a responsive user interface theme. Universal Theme does away with excessive templates and supports effortless customizations with Template Options, Theme Styles, and Theme Roller. The Universal Theme empowers application developers to build modern, responsive, sophisticated, and accessible applications without requiring expert knowledge of HTML, CSS, or JavaScript.

### Mobile Web Applications

Oracle Application Express incorporates jQuery Mobile to allow developers to rapidly build mobile applications. jQuery Mobile is a lightweight framework that enables you to create compact and minimal web pages that include only a few images and CSS files. jQuery Mobile is also aware of and able to respond to mobile device specific events, such as orientation change and touch events. Mobile applications developed with Application Express are browser-based applications that run inside the browser on the mobile device.

## Packaged Applications

Oracle Application Express includes a set of business productivity applications, easily installed with only a few clicks. These solutions can be readily used as production applications to improve business processes and are fully supported by Oracle. Packaged applications also include a collection of sample applications which demonstrate some of the major features of Oracle Application Express. By default, sample applications are fully editable. In contrast, you must unlock productivity applications before you can edit them. Unlocking an application makes it ineligible for future upgrades or support by Oracle Support.

## Flexible Application Deployment

The definition of an entire application can be easily packaged and exported for deployment and installation into another Oracle Application Express instance. Once you export an application, you can deploy it in a hosted instance or in the cloud for example, in the Oracle Database Cloud Service. Oracle Application Express allows you to seamlessly move your applications between environments within your corporate network and public clouds.

## Conclusion

Oracle Application Express is Oracle's primary tool for developing Web applications with SQL and PL/SQL. Using only a web browser, you can develop and deploy professional Web-based applications for desktops and mobile devices. Modern Web application development is made easy due to the rich built-in features available in Oracle Application Express.

## Contact Us

For more information about Oracle Application Express visit <http://otn.oracle.com/apex> or call +1.800.ORACLE1 to speak to an Oracle representative.



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