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**The Oracle Fusion Development Platform**

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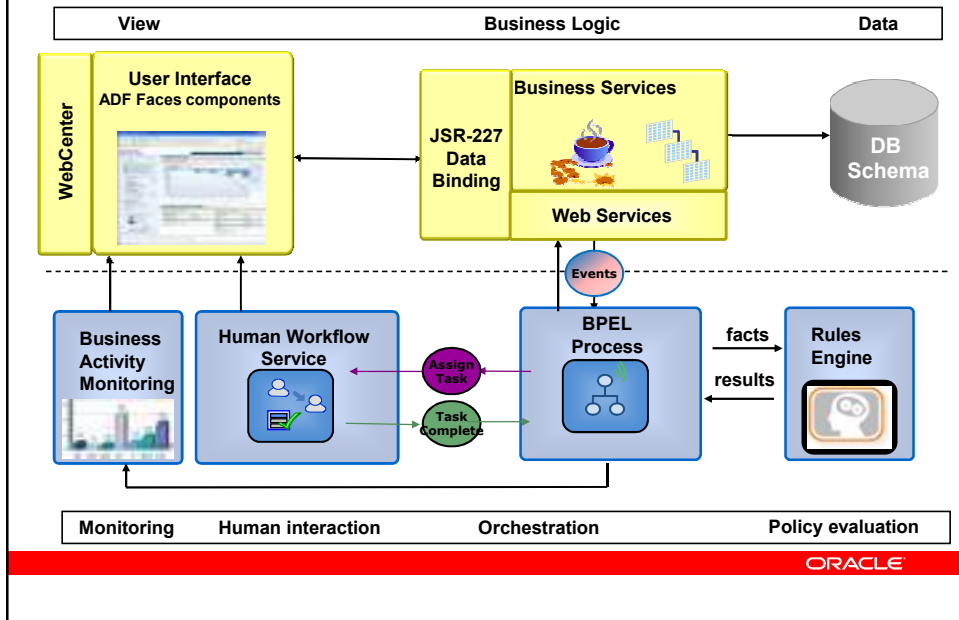
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## ORACLE FUSION MIDDLEWARE



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# Oracle Fusion Architecture



# Oracle Application Development Framework

- End to End Java EE Framework
- Increase productivity
- Improve ease-of-use
- Promote service oriented development
- Standards-based



## Oracle SOA Suite

- Integrate and Orchestrate Systems
  - Adapters
  - Oracle ESB
  - Oracle Web Services Manager
  - Oracle BPEL PM
  - Oracle BAM
  - Oracle Business Rules

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## Oracle WebCenter

- WebCenter Framework
  - Customization and context-rich capabilities for Java EE applications
  - Portlet/JSF bridge
- WebCenter Services
  - Web 2.0 services for your application

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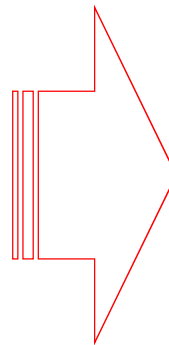
## How Do We Make It Easy to Develop?

- Oracle JDeveloper
  - Development Tool
- Oracle ADF
  - Development Framework

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## Enterprise IDE

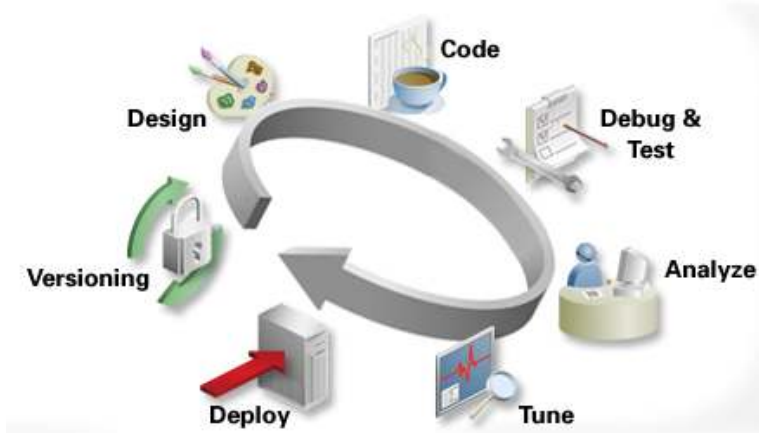
- Java EE
- Web Services
- BPEL & ESB
- BAM
- WebCenter / Portlets
- Database
- XML



**JDeveloper**

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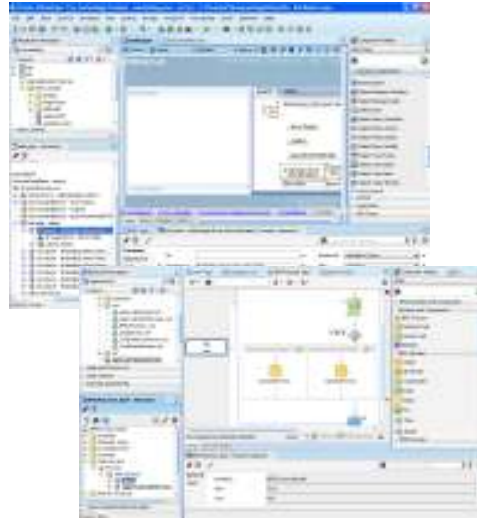
## Full Lifecycle Support



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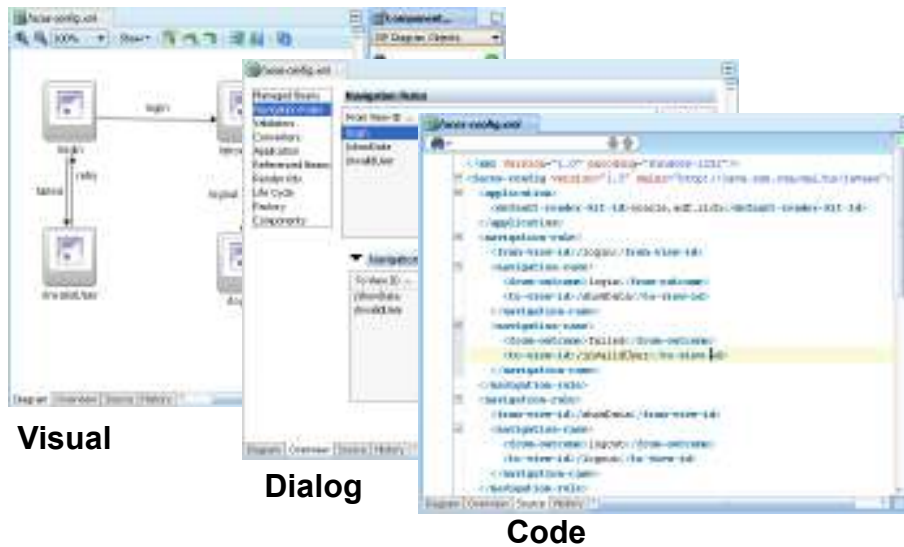
## Visual and Declarative

- WYSIWYG Editors
  - JSF, JSP, HTML, Swing
- Visual Page Flows
  - JSF, Struts
- Modelers
  - DB, Class, EJB
- Visual XML Editors
  - XML Schema, XSLT, WSDL
- Process Flow
  - BPEL, ESB



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## Choice of Development Styles



The screenshot displays the Oracle APEX development environment. On the left, a 'Visual' view shows a page layout with a 'Table' and a 'Page Footer'. In the center, a 'Dialog' view shows a 'Page Properties' dialog box with various settings. On the right, a 'Code' view shows the underlying HTML and JavaScript code for the page, with a highlighted section of code.

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## Oracle Application Development Framework



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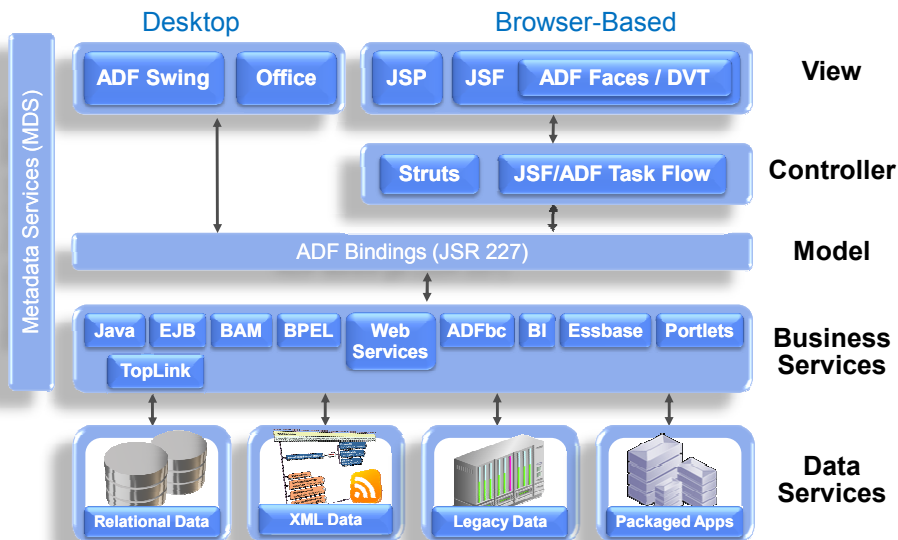
## Oracle Application Development Framework (Oracle ADF)

- Increase productivity & ease-of-use
  - Visual and declarative development
  - Takes care of the “plumbing” code
  - Implements best practices
- Promote service oriented development
  - Re-usable business services
  - Composite applications development
- Standards-based
  - Choice of technology, deployment platform
- Common framework for the platform



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## Application Development Framework (ADF) Standards-based Productivity



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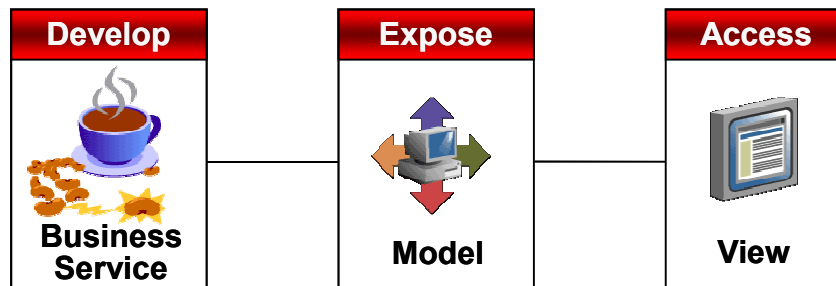
# Demonstration

## Oracle Fusion Application In Action

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## Fusion Development Approach

SOA Development with ADF



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## Develop Services Business Services Layer

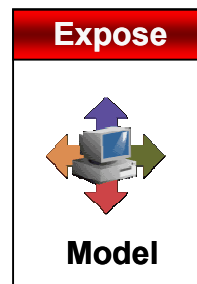
- Data access
  - O/R Mapping
  - Queries/DML
- Business logic
  - Data Validation
  - Business Logic
- Choices of implementation
  - EJB, TopLink JPA, ADF Business Components, POJO, Web Services, XML, BI, JMX, Content Repositories



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## Expose Services ADF Model Layer

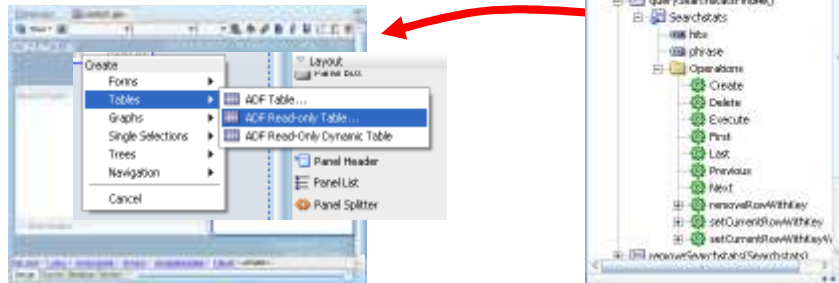
- ADF model
  - JSR-227 Data Controls
- Service oriented Interface
  - Abstract implementation from clients
  - Loose coupling between services and application
- More reusability
  - Discover and Share Services
- More productivity
  - Drag and Drop Data Binding



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## ADF Data Binding

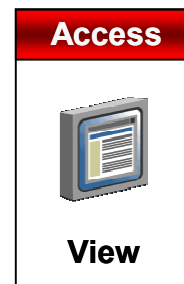
- Drag and drop business services to view and controller



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## Access Services View Layer

- Choice of technology
  - JavaServer Faces (JSF)
  - Swing
  - JSP
  - JSP/Struts
- Visual layout editor
- Easy data binding



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## ADF Faces Rich Client

- 150+ AJAX enabled JavaServer Faces components
- Data visualization components (Graphs and Maps)
- Drag-and-drop framework
- Dialog and popup framework
- Navigation menu framework
- Partial page rendering
- Active data framework
- Advanced data streaming
- Complete JavaScript API

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## ADF Faces Rich Client Samples

The screenshot displays a rich client application with several key features:

- Progress Bar:** A horizontal progress bar at the top left, ranging from 0% to 100%.
- File Menu:** A standard file menu with options like New, Open Web Location..., Open File..., Close, Save, and Quit.
- Navigator:** A panel on the right showing a tree view of the application structure, including 'First Pane', 'Rendered Tests', and 'Visibility Tests'.
- Control Panel:** A central area with a vertical slider (ranging from -1000.0 to 1000.0) and a 'Partial Update Tests' section with 'First' and 'Second' checkboxes, and an 'Update' button.
- Value Lists:** Two panels for managing values. 'Available Values' includes orange juice, wine, beer, coffee (checked), tea, and fizz. 'Selected Values' includes lemonade and milk (checked). Arrows indicate 'Move', 'Move All', 'Remove', and 'Remove All' actions.
- Calendar:** A calendar widget showing the month of May 2007.
- Data Table:** A table with columns for 'Emp', 'Dept', 'Job', and 'Salary', displaying employee data.

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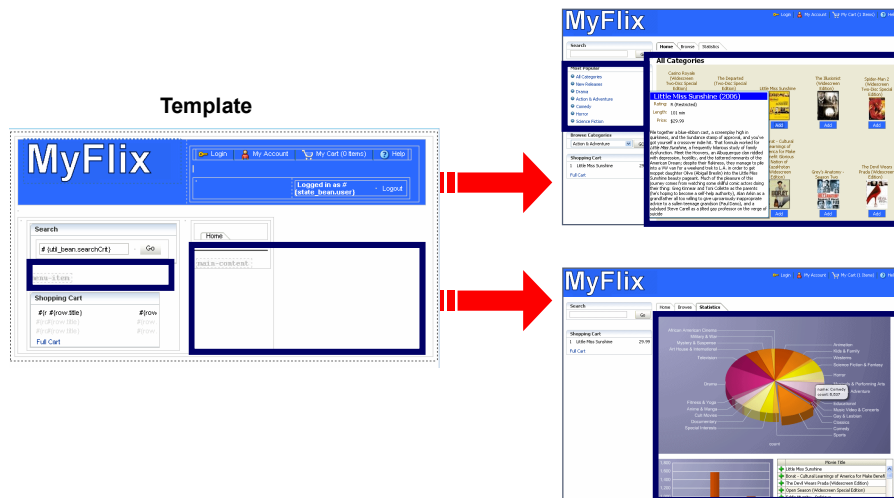


## Reusability for JSF Development

- Templating for JavaServer Faces technology
  - Define a standard page template
- Page Fragments
  - Develop reusable areas
- Page Regions
  - Construct a page from fragments
- Declarative Components
  - Bundle components together

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## JSF Templates



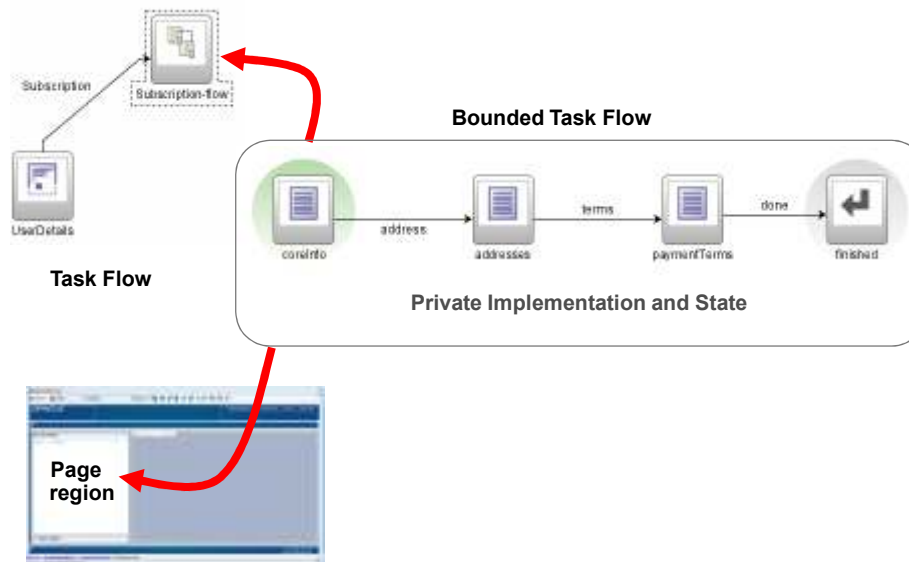
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## ADF Controller - Extending JSF

- ADF Task Flows add functionality on top of the JavaServer Faces technology page flow
- Enhanced Reusability
- Out-of-the-box Advance Features
- Declarative Functionality

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## Declarative Controller



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# Demonstration

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## Reusability

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## Summary

- The Tools to Fusion Development
  - JDeveloper and ADF leverage SOA
- Oracle ADF
  - Simpler Java EE development
  - SOA – ready applications
  - Rich Set of AJAX UI Components
  - Easy Access to Business Services
- Fusion Applications
  - Base development platform to create Fusion Apps.



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## For More Information

- <http://oracle.com/technology/jdev>
  - Software
  - Demos
  - Tutorials
  - Discussion Forum
  - Blogs
  - More...
- PEOUG - <http://www.peoug.org/>
- JDeveloperLA - <http://www.jdeveloperla.com/>
- <http://oracleradio.blogspot.com/>

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