



## **Plataforma de Desarrollo para Aplicaciones Oracle**

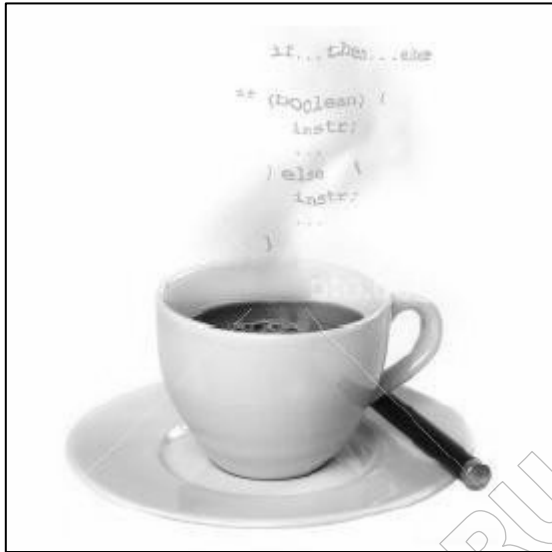
Plinio Arbizu (plinio.arbizu@gbsperu.net)  
PERU Oracle Users Group  
Junio 2007

# Agenda

- **The Next Application Platform**
- **Application Development Tools**
- **Tools PL-SQL**
- **Tools J2EE**
- **Tools Developer**
- **Q&A**

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# The Next Application Platform



**Java EE 5**

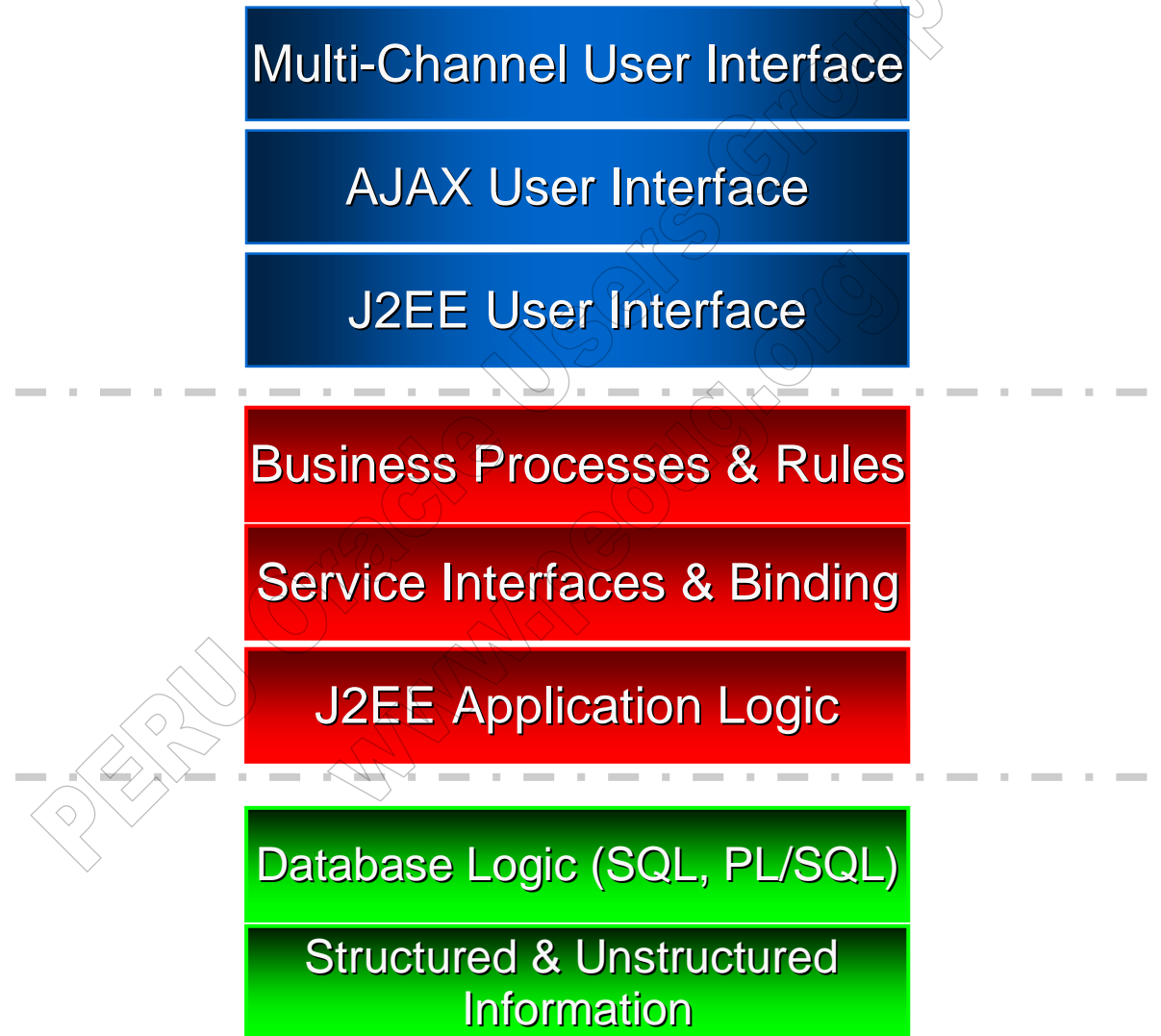


**SOA 2.0**



**Web 2.0**

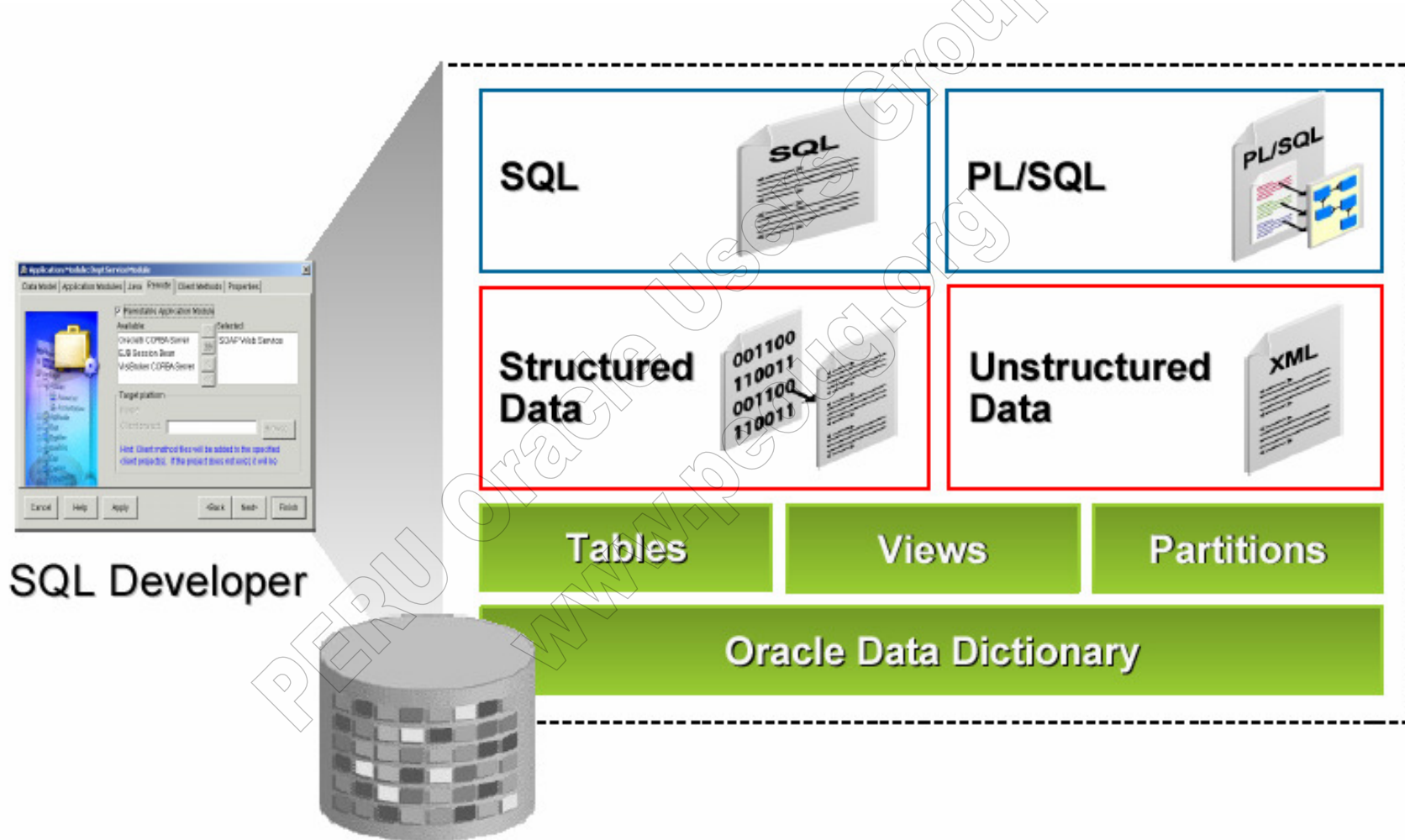
# Application Development Tools



# Herramientas PL-SQL

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# Oracle SQL Developer



# What is SQL Developer?

SQL Developer provides:

- Object Browsing
- Object Creation
- SQL Worksheet for commands and scripts
- PL/SQL editing, debugging

# Why SQL Developer?

A graphical interface to Oracle database

- **Uncluttered, intuitive interface**
- **Enhanced productivity**
- **Good user experience**
- **Simplified database development tasks**

Comprehensive core functionality

Rich client, SQL\*Plus functionality

Easy

- **Unzip install**
- **No Oracle Home required**
- **Multi-platform support: Windows, Linux and Mac OS X**

Targets the Oracle Database Developer

**Free**



# DEMOSTRATION

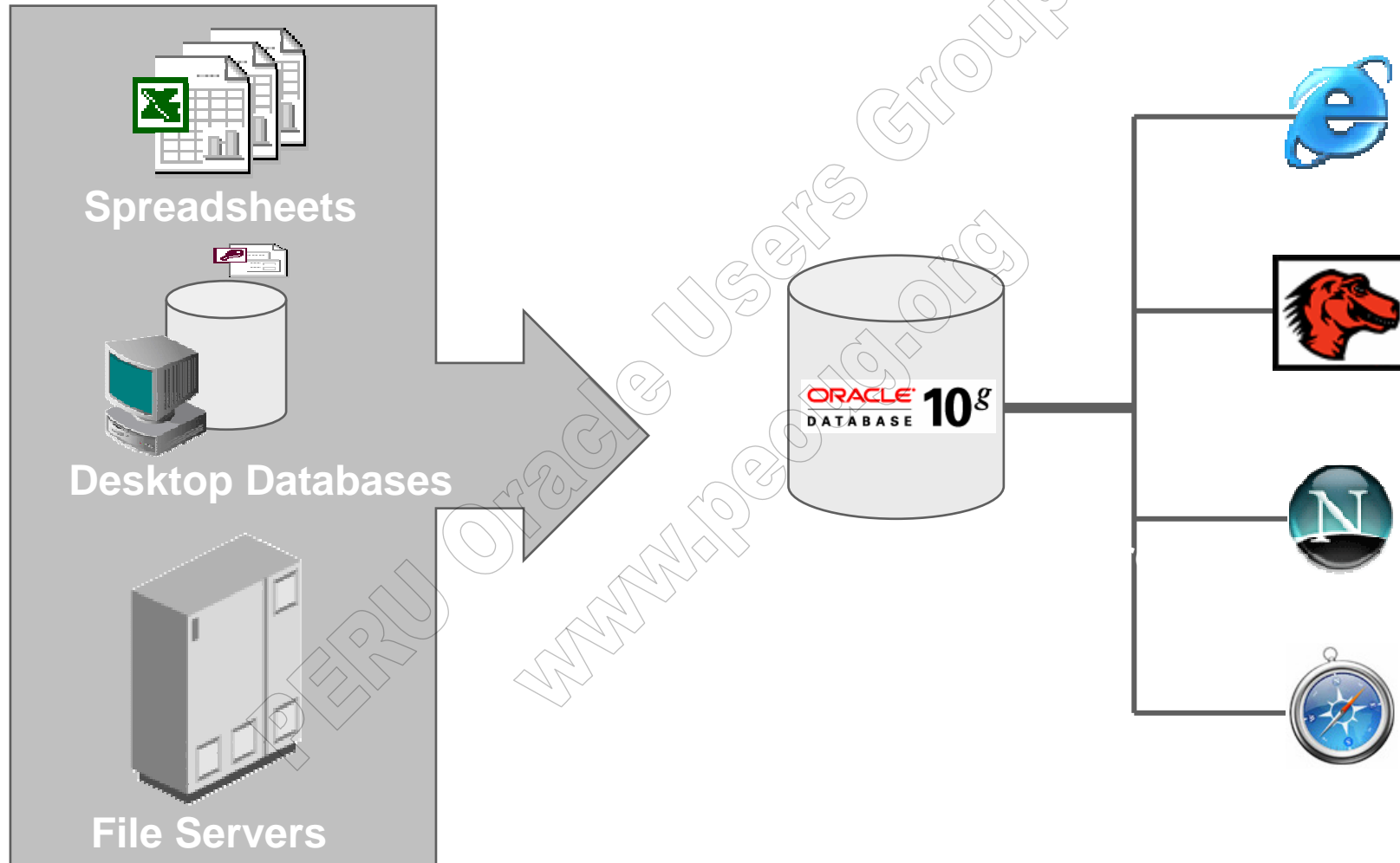


## SQL Developer

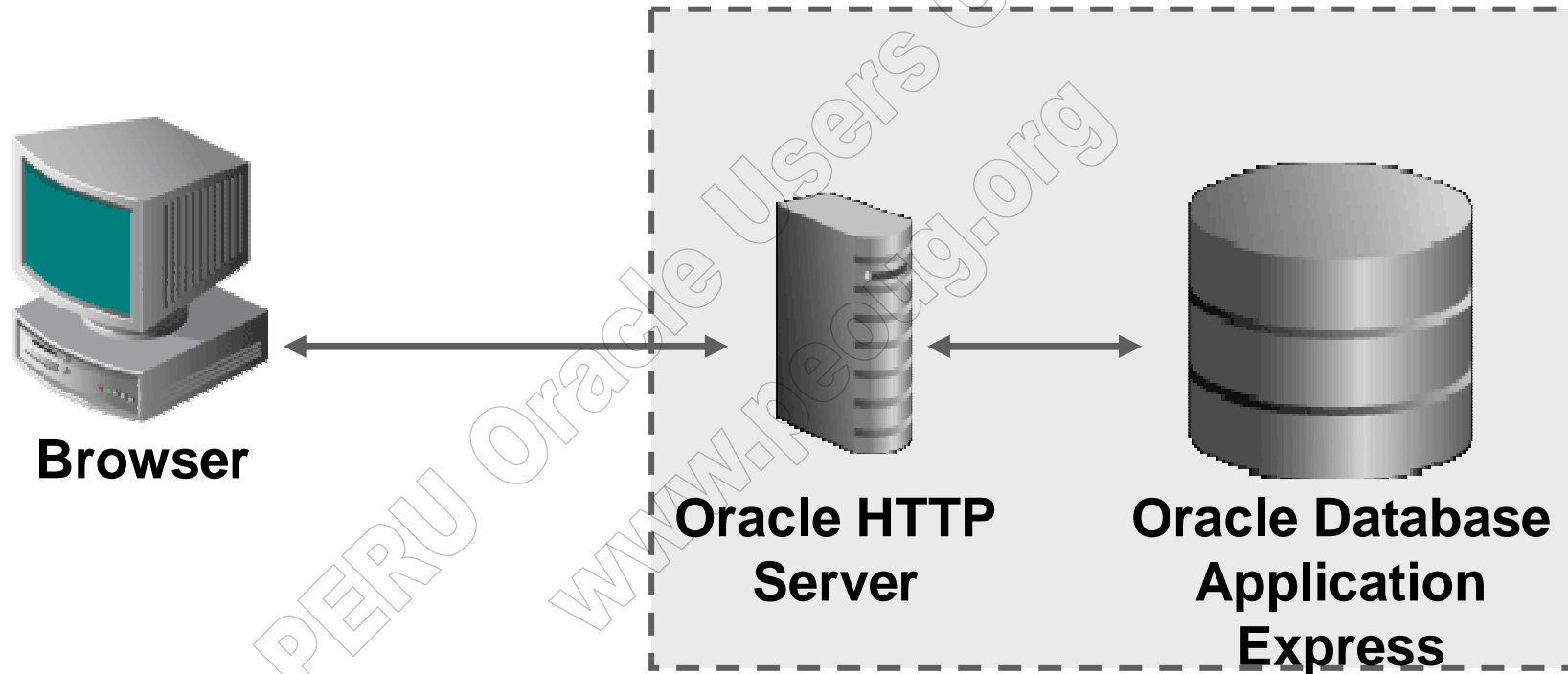
# Does Your Organization:

- **Use spreadsheets as databases?**
- **Store mission critical data in applications developed in a desktop database such as Microsoft Access?**
- **Not have time to build all of the applications that users are asking for?**

# Oracle Application Express



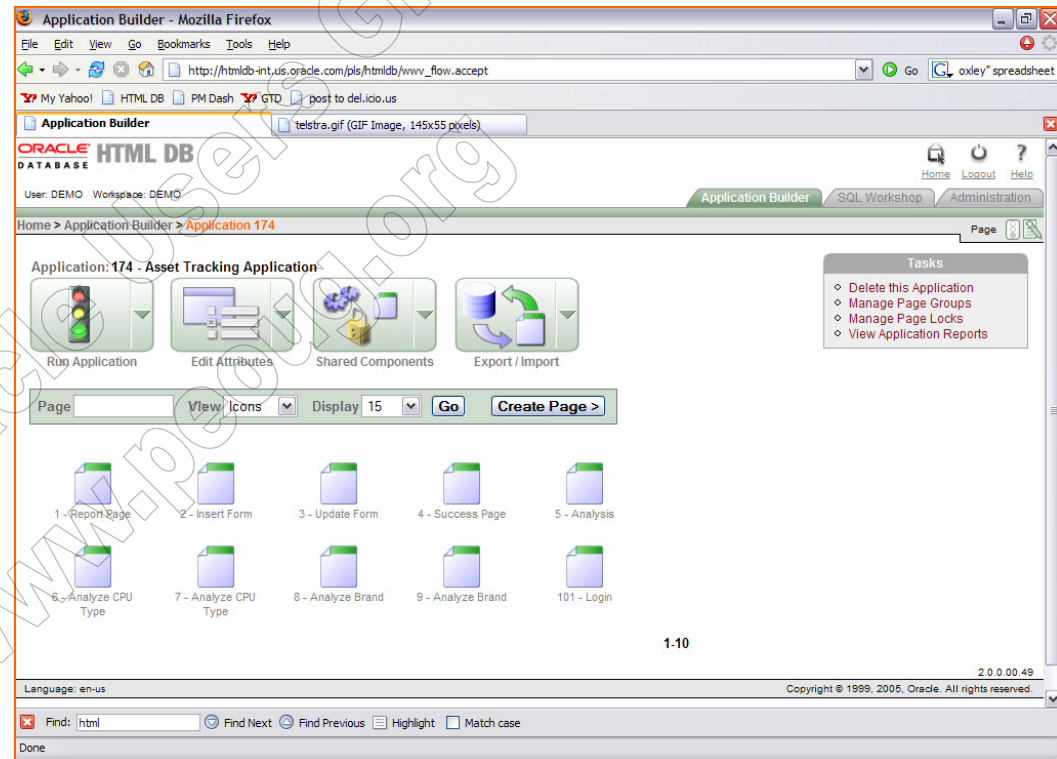
# Architecture



# Functionality Overview

## Complete Environment

- **Application Builder**
- **SQL Workshop**
- **Administration**



# Application Development

Reports  
Data entry forms  
Charts  
Security  
Navigation  
Look and feel

The screenshot displays the Oracle HTML DB Sample Application interface. The browser window title is "Orders - Mozilla Firefox". The address bar shows the URL: <http://htmldb-int.us.oracle.com/pls/htmldb/f?p=105:4:17669161342951831852:NO>. The page title is "ORACLE HTML DB Sample Application". The navigation menu includes "Home", "Customers", "Products", "Orders", and "Charts". The "Orders" section is active, showing "My Orders" and "Orders by Day".

**My Orders**

Order Date	First Name	Last Name	Sales Rep	Order Total
26-AUG-05	Albert	Lambert	DEMO	\$40.00
21-AUG-05	Albert	Lambert	DEMO	\$450.00
15-SEP-05	Edward	Logan	DEMO	\$750.00
10-SEP-05	Edward	Logan	DEMO	\$40.00
05-SEP-05	Edward "Butch"	O'Hare	DEMO	\$250.00
16-AUG-05	Eugene	Bradley	DEMO	\$500.00
31-AUG-05	Fiorello	LaGuardia	DEMO	\$3,800.00
30-SEP-05	John	Dulles	DEMO	\$1,200.00
25-SEP-05	William	Hartsfield	DEMO	\$599.00
20-SEP-05	William	Hartsfield	DEMO	\$1,999.00
<b>Total:</b>				<b>\$9,628.00</b>

1 - 10  
[Enter New Order](#)

**Orders by Day**

Previous Today Next

October 2005

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						01
02	03	04	05	06	07	08
09	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Edit Application Edit Page 4 Create Session Debug Show Edit Links

Find: html Find Next Find Previous Highlight Match case

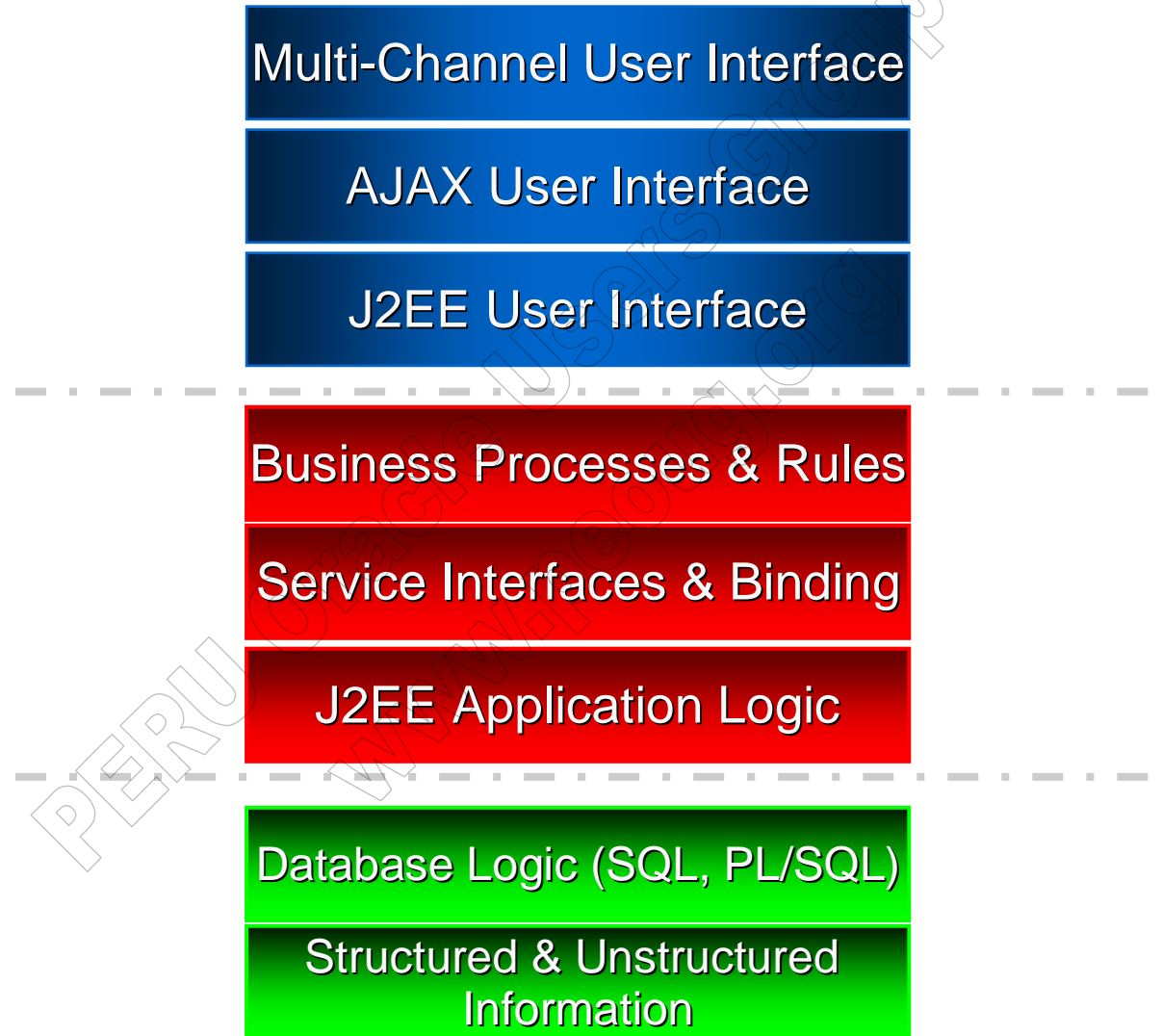
Done

# DEMOSTRACION



## Application Express

# Application Development Tools





# Herramientas J2EE

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# Oracle JDeveloper 10g

**Standards-based Free IDE**

**Integrated Tool for the Platform**

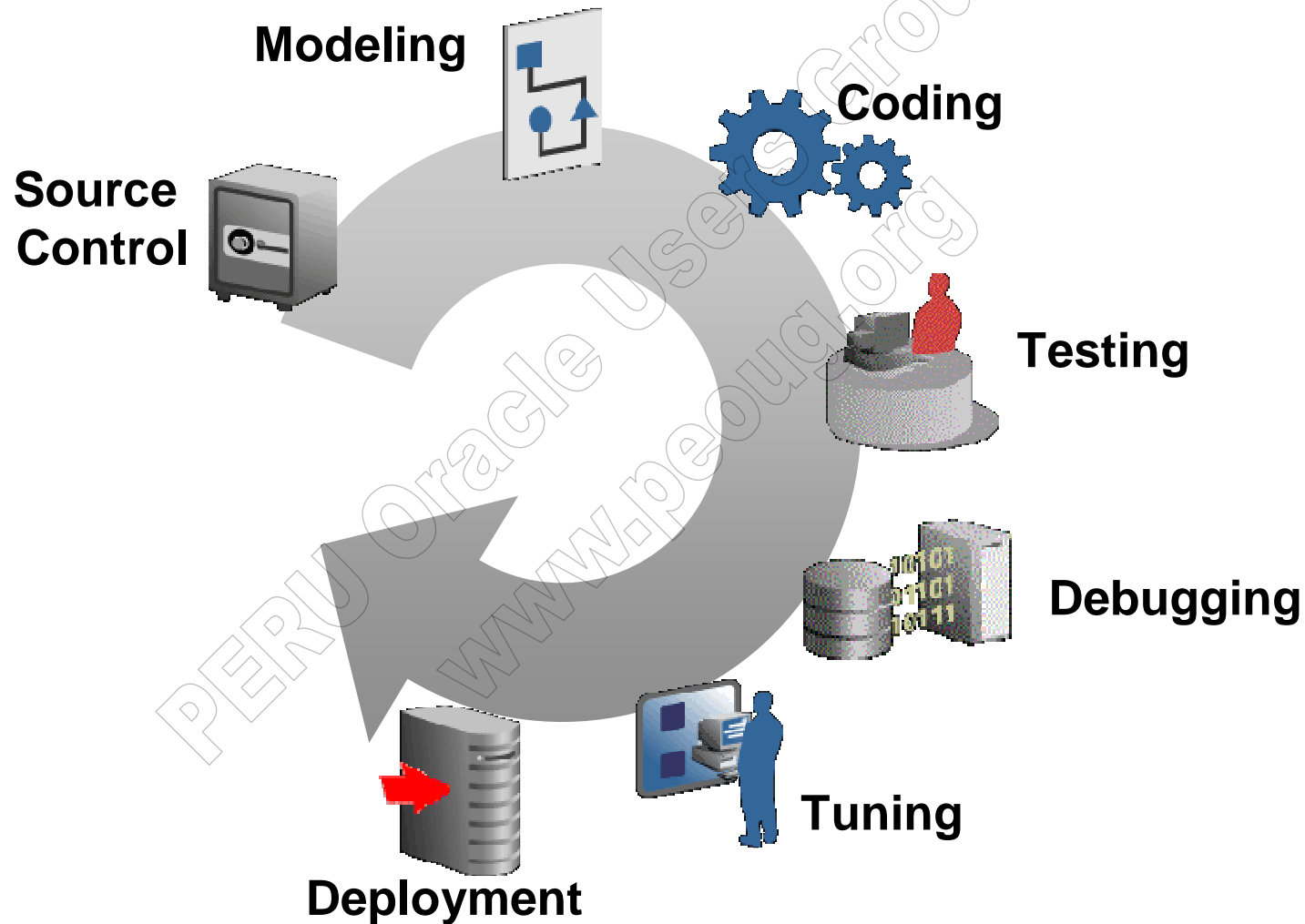
- J2EE Development
- Web Services
- XML
- Wireless
- Portal
- Business Process modeling (BPEL)
- Database (Modeling, SQL, PL/SQL)
- Business Intelligence (BI Beans, Reports)

**Common Tool = More productivity**

- Common Concepts, Common Gestures

**ORACLE®**  
**JDEVELOPER** **10g**

# Full Development Lifecycle



# Visual and Declarative

## WYSIWYG Editors

- JSF, JSP, HTML, Swing

## Visual Page Flow

- JSF, Struts

## Modelers

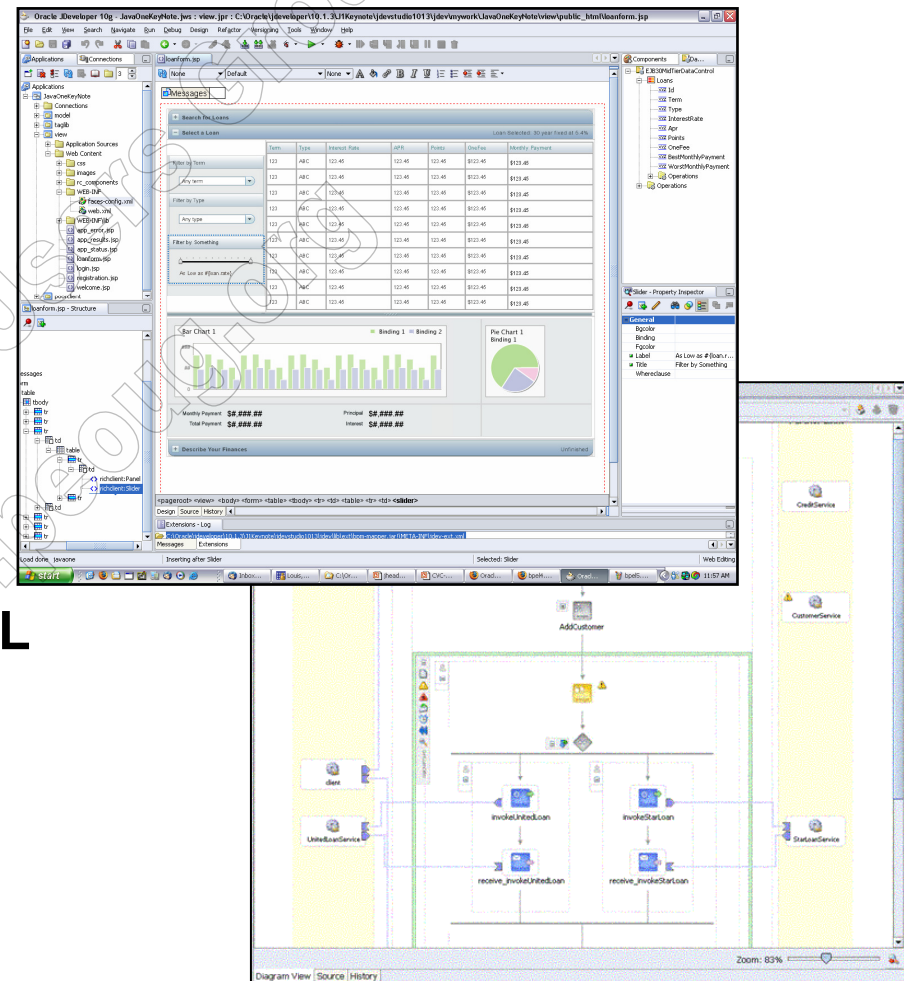
- DB, EJB, Class modeling

## Visual Editors

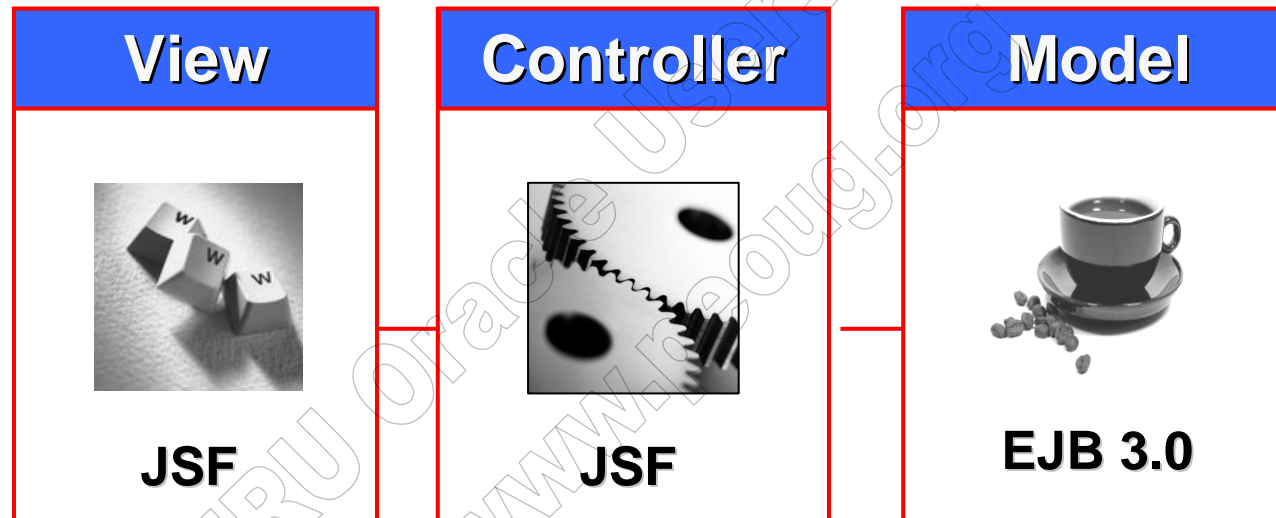
- XML Schema, XSLT, WSDL

## Process Flow

- BPEL Editor



# Development Framework JavaServer Faces & EJB 3



# EJB 3.0 Entities

- **EJB 3.0 entities are POJOs**
  - Simple programming model
  - POJO persistence (concrete classes)
  - No required interfaces
  - Annotations provide OR mapping
- **Improved modeling capabilities**
  - Inheritance and polymorphism
- **EntityManager API**
  - Handles data manipulation
  - Entities usable outside the container

# Client View

```
private EntityManager em;
public Employee findEmployeeByEmpNo(int empNo)
{
return ((Employee)em.find(Employee.class,empNo));
}
public void addEmployee(String eName, double sal)
{
if (emp == null) emp = new Employee();
emp.setEname(eName);
emp.setSal(sal);
em.persist(emp); // persist Employee in db
}
```

# JavaServer Faces (JSF) Overview

**JSF is a natural evolution of J2EE Web development**

**JavaServer Faces**

*Finally, a  
comprehensive,  
standard API for J2EE  
Web applications!*



# JSF: Overview

**JavaServer Faces (JSF) is a server-side component framework for Web applications.**

**JSF:**

- **Is an implementation of the MVC design pattern**
- **Enables separation of business and presentation logic**
- **Enables separation of navigational and data flow**

# JSF: Overview

The screenshot displays the Oracle ADF (Application Development Framework) design tool. The main workspace shows a web page layout with the Oracle logo and 'APPLICATION DEVELOPMENT FRAMEWORK' text. Below this is a navigation bar with tabs for 'Cliente', 'Producto', and 'Movimiento'. A central section titled 'Ejemplo de Invocacion' contains a button labeled 'Imprimir'. At the bottom of the page, there are links for 'Cliente', 'Producto', 'Movimiento', 'Logout', and 'Ayuda', along with the text 'Desarrollado por el Workshop ADF 10.1.3'. The right-hand side of the image shows the 'Property Inspector' for the selected 'Imprimir' button. The 'General' tab is active, showing the following properties:

Property	Value
Text	Imprimir
Action	
ActionListener	#{bindings.print.execute}
LaunchListener	
PartialSubmit	false
ReturnListener	

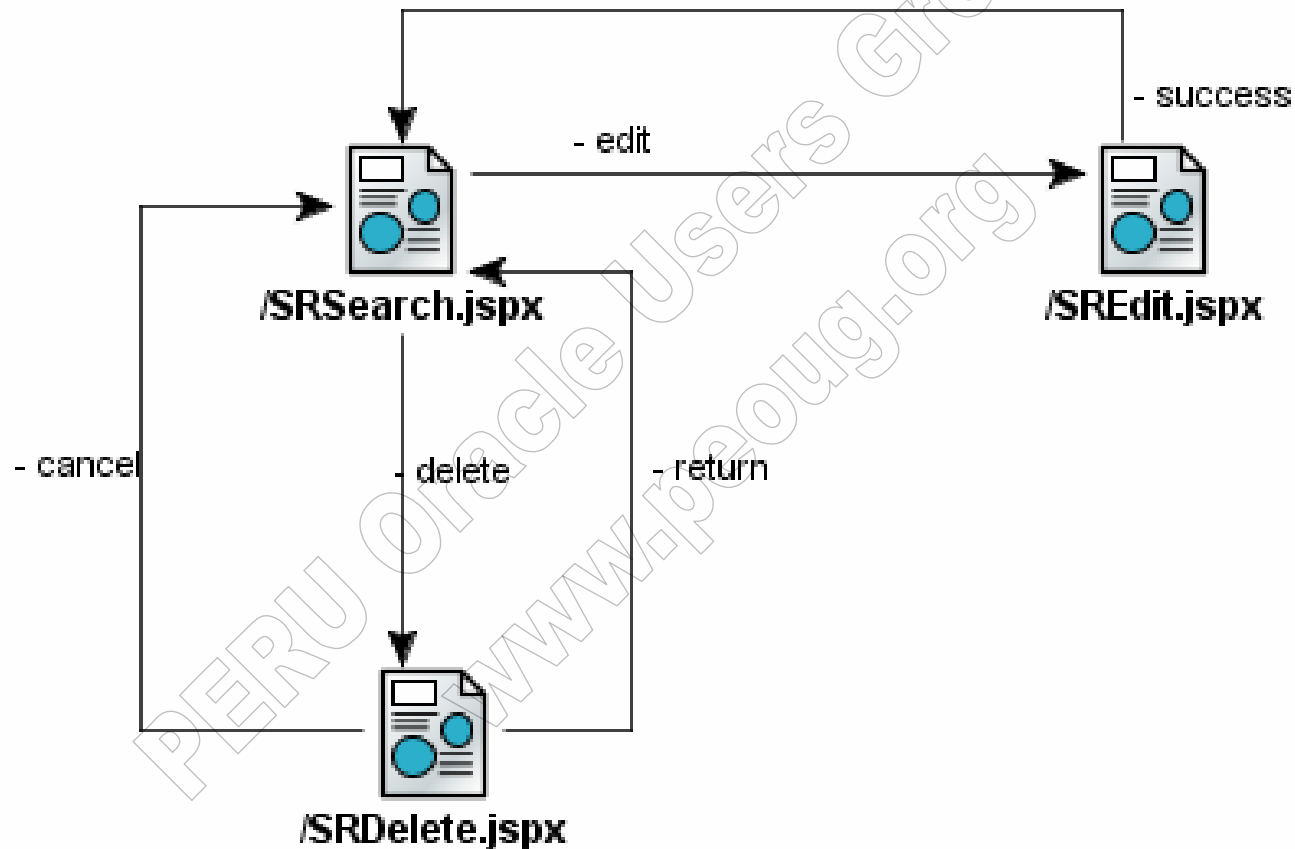
At the bottom of the design tool, the source code for the selected component is visible: `<af:commandbutton>`. The bottom status bar shows 'Design', 'Source', and 'History' tabs.

# JSF: Overview

3. Se generara un método que invoca la lógica elegida

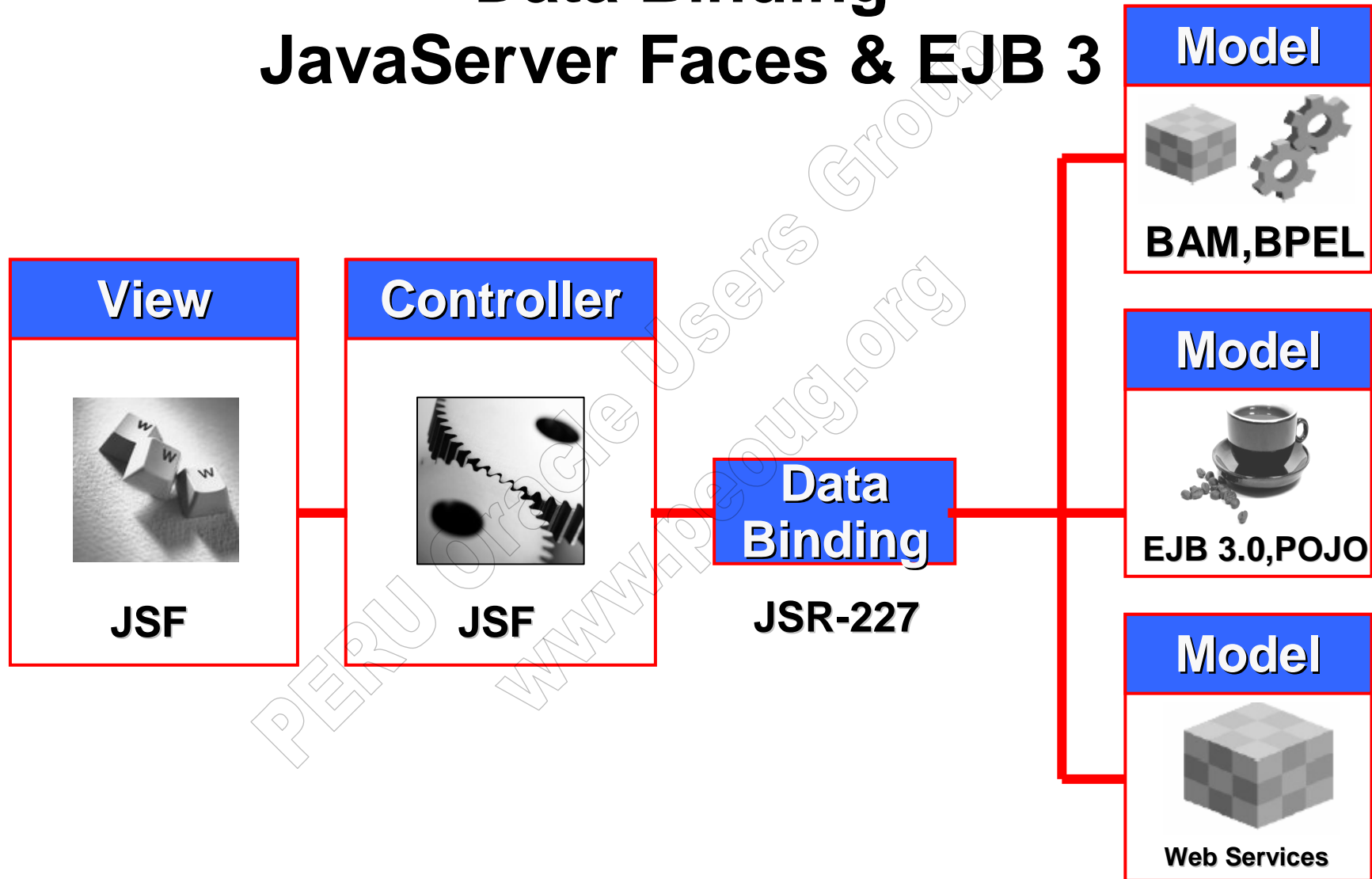
```
public String commandButton_action() {  
    BindingContainer bindings = getBindings();  
    OperationBinding operationBinding =  
        bindings.getOperationBinding("print");  
    Object result = operationBinding.execute();  
    if (!operationBinding.getErrors().isEmpty()) {  
        return null;  
    }  
    return null;  
}
```

# JSF Navigation Diagram



# Data Binding

## JavaServer Faces & EJB 3



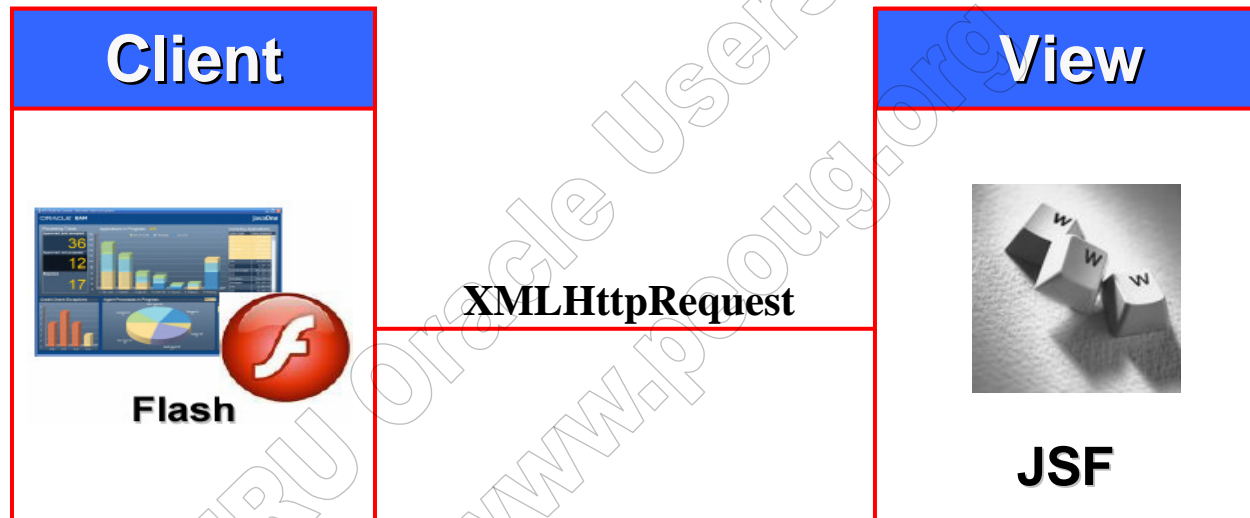
# Dynamic User Interfaces

## AJAX & JavaServer Faces



# Dynamic User Interfaces

## AJAX & JavaServer Faces



# DEMOSTRATION



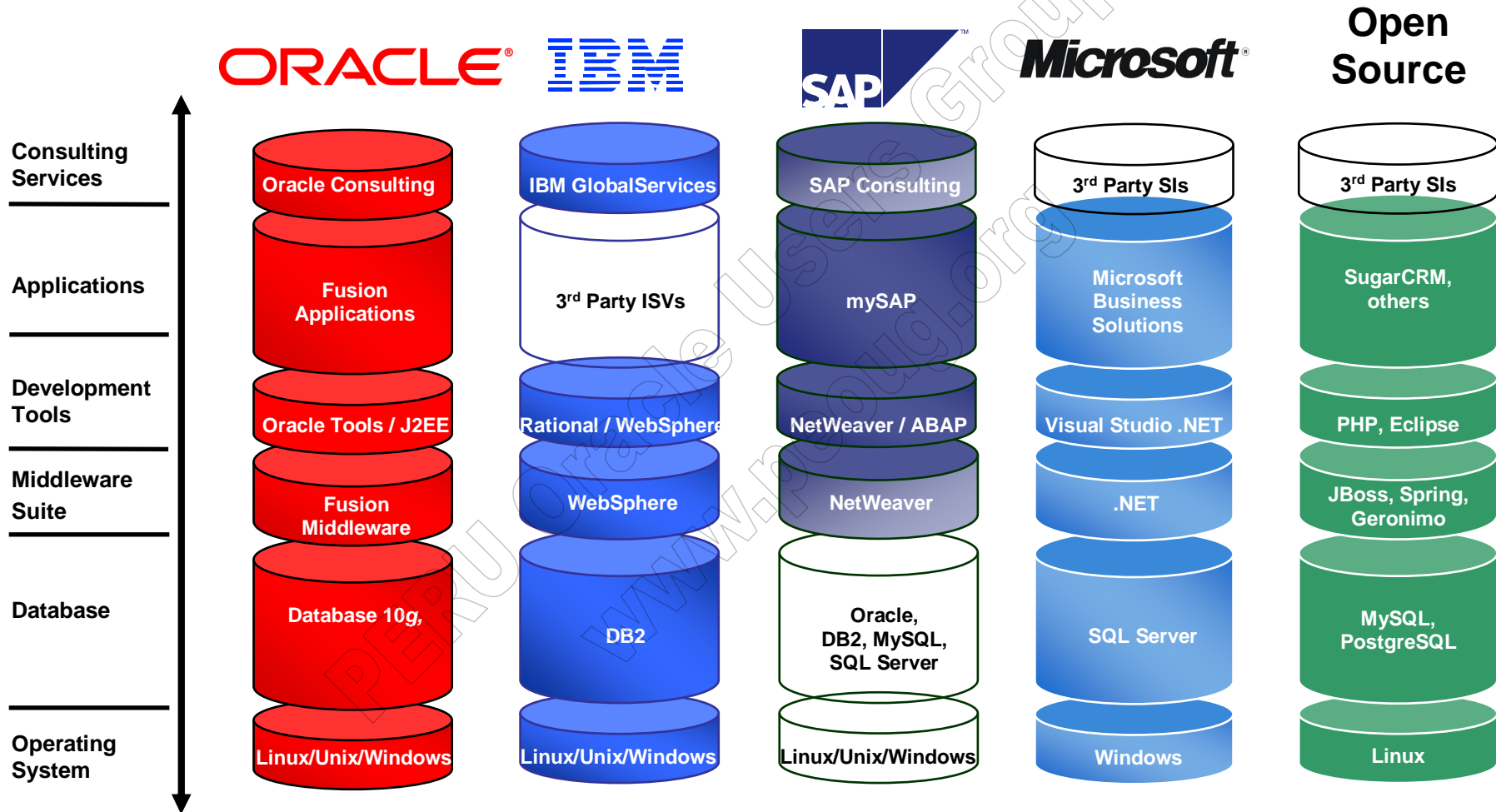
## JDeveloper J2EE Application



# Herramientas Developer Forms

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# Oracle Fusion



# Migration Scripts to Automate Much of the Upgrade to Fusion Applications

## 'Launchpad' Releases

PeopleSoft Enterprise	8.8
	8.9
	9.0
JD Edwards EnterpriseOne	8.11
	8.12
JD Edwards World	A7.3
	A8.1
	A9
Oracle E-Business Suite	11i.10
	12

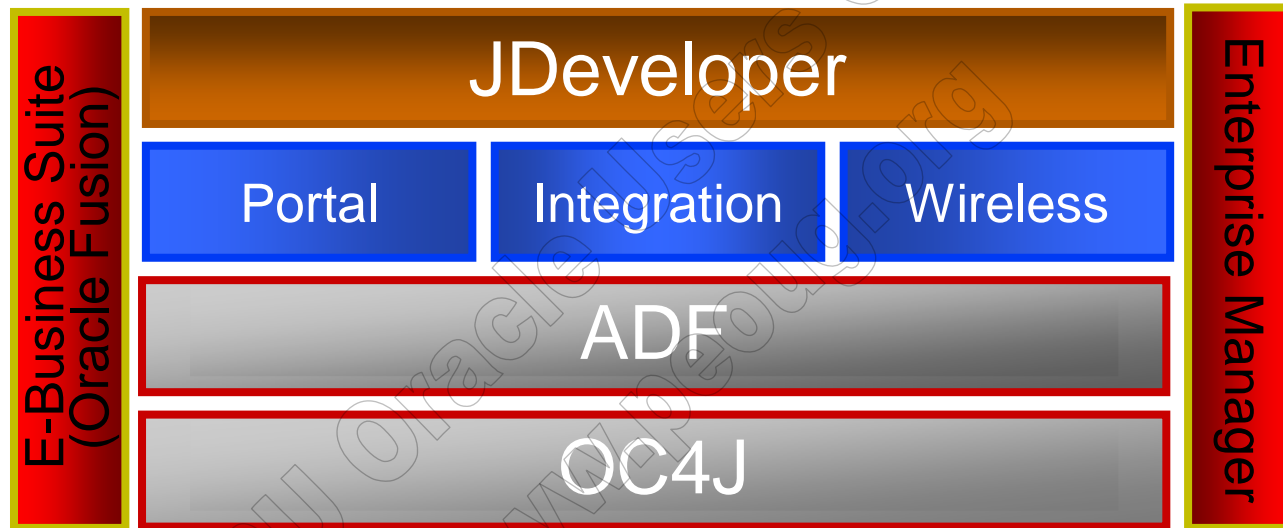
Automated  
Upgrades

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APPLICATIONS**

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# Common Architecture



# What is ADF?



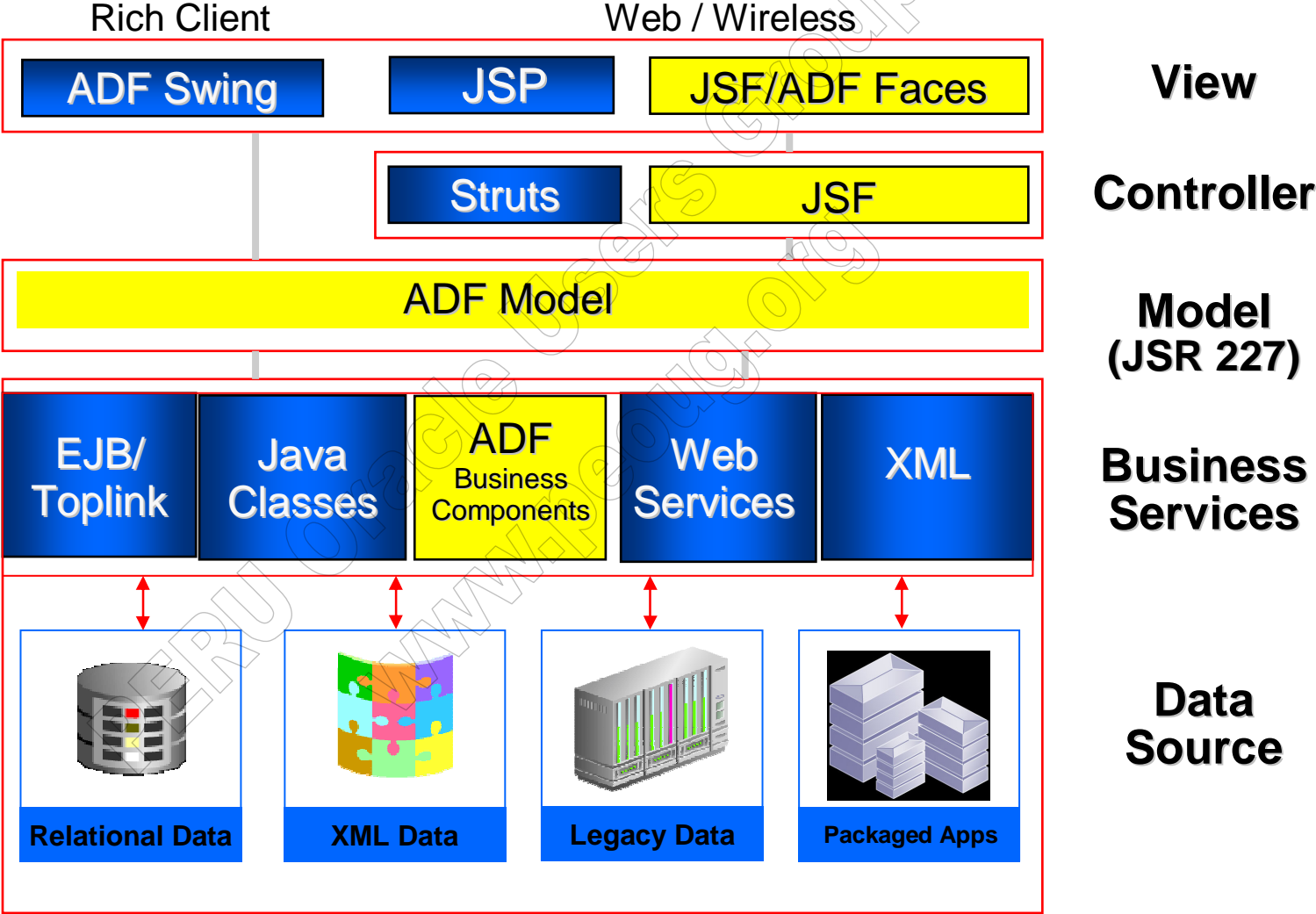
**Application Development Framework to simplify the development of composite applications**

**Productivity with Choice**

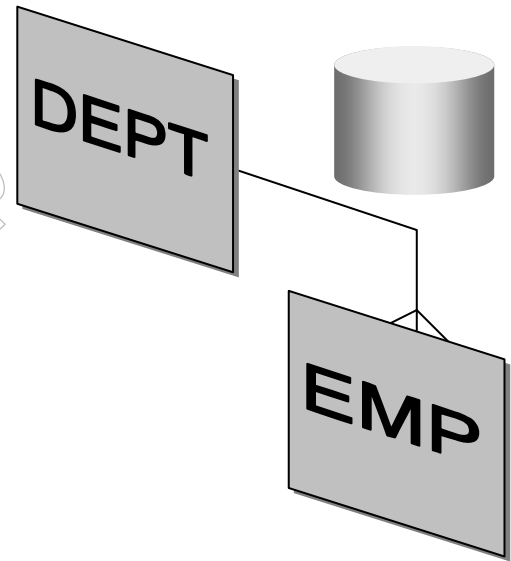
- **Increase Productivity & Ease-of-use**
- **Promote Service Oriented Development**
- **Standards-Based**

**Key component of Fusion Architecture**

# ADF Architecture

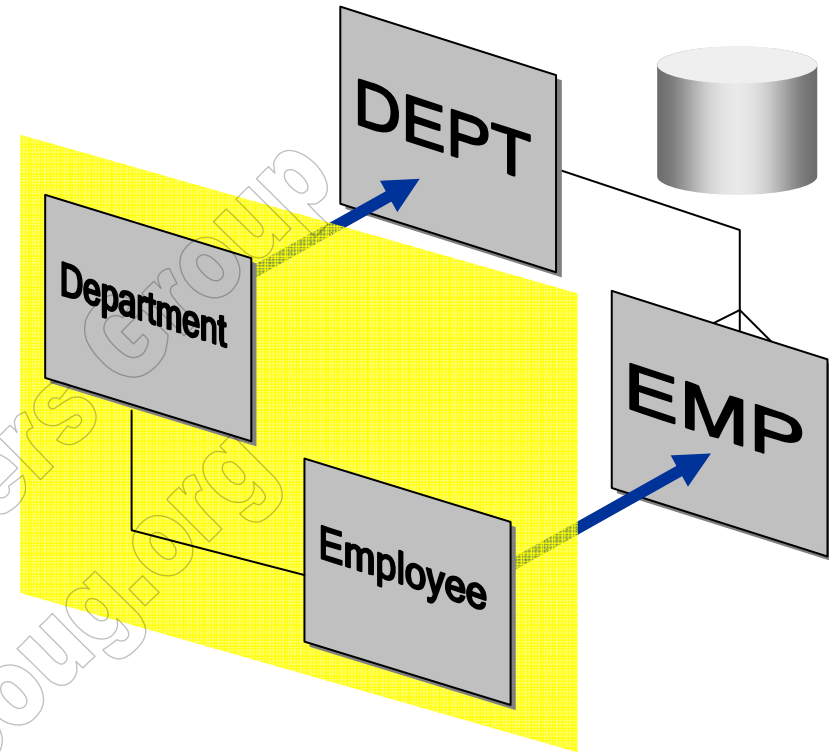


Start with database tables



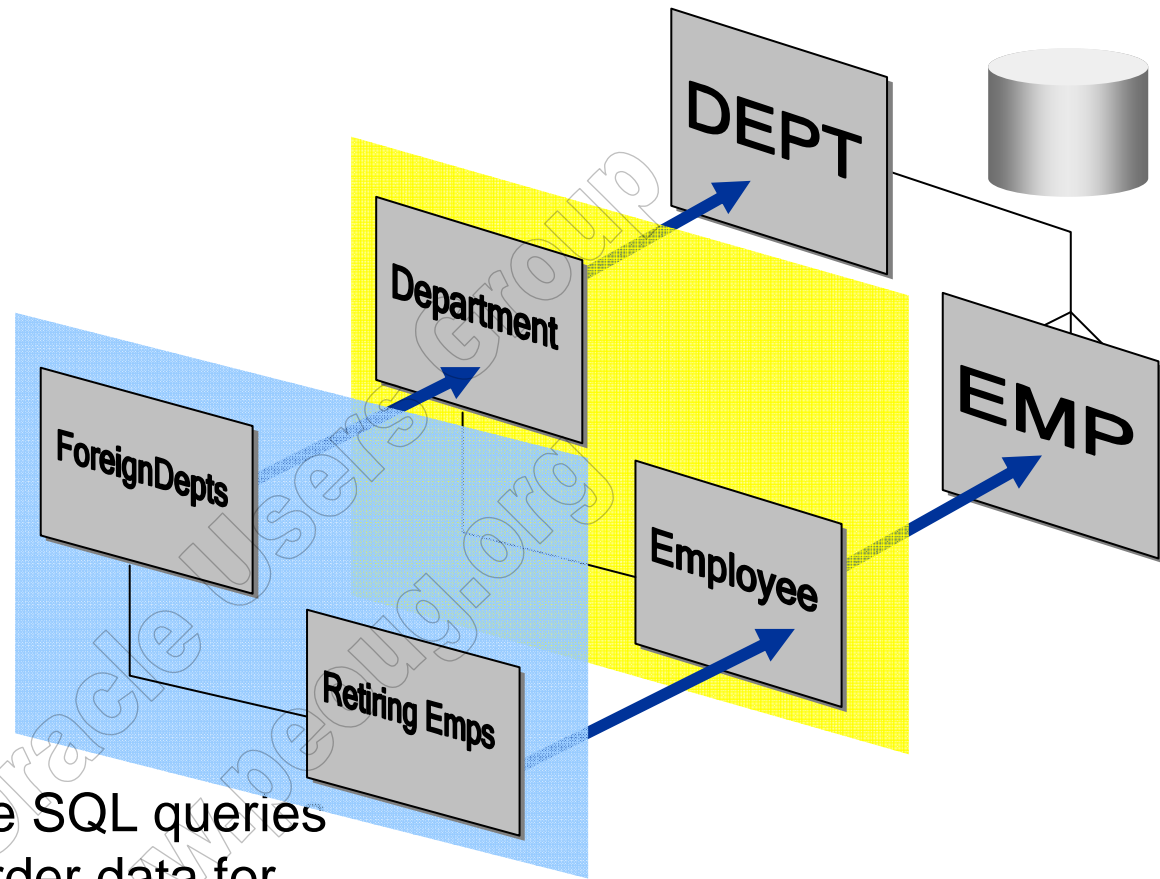
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Entity objects encapsulate business rules, logic, defaults in a consistent way for a table

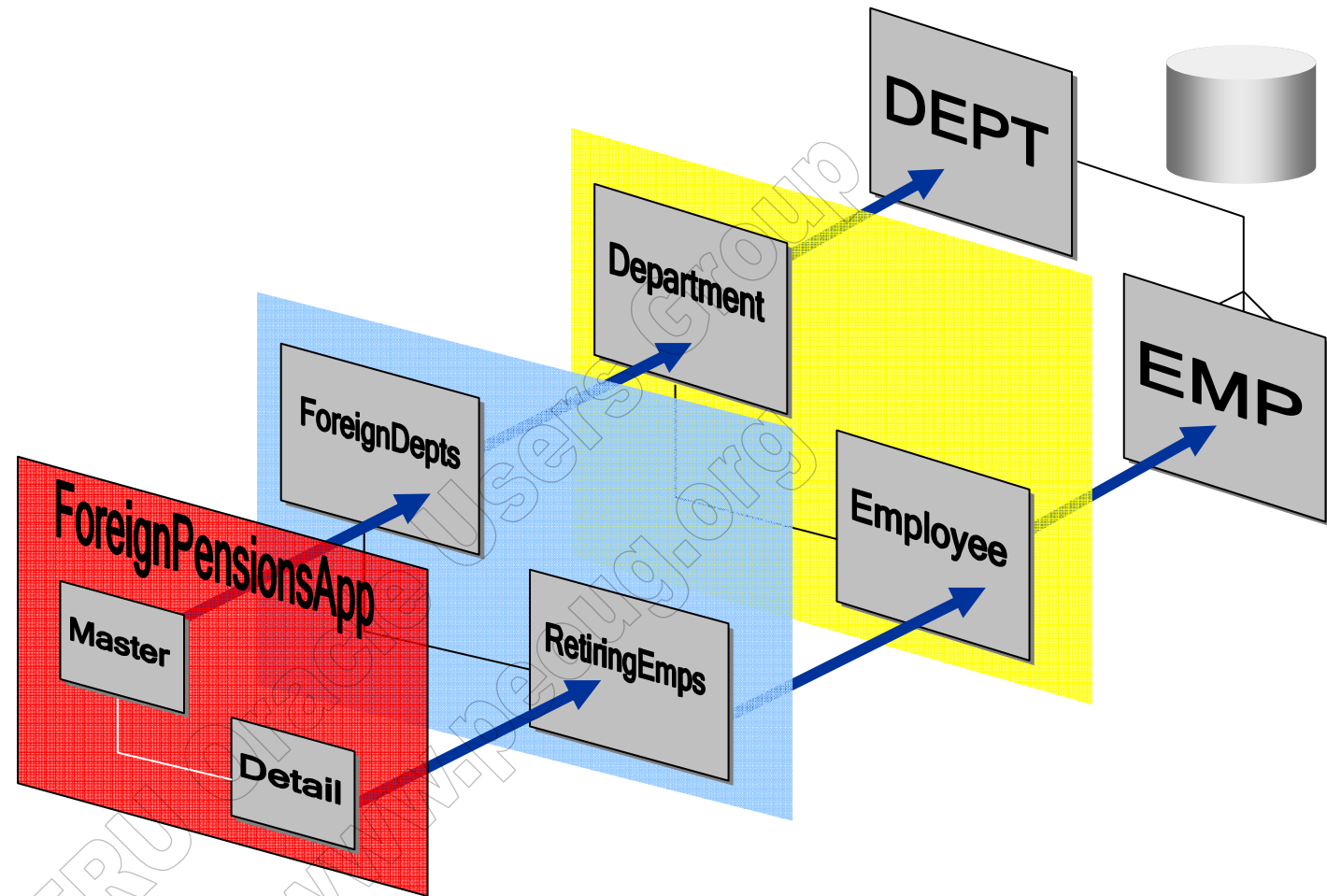


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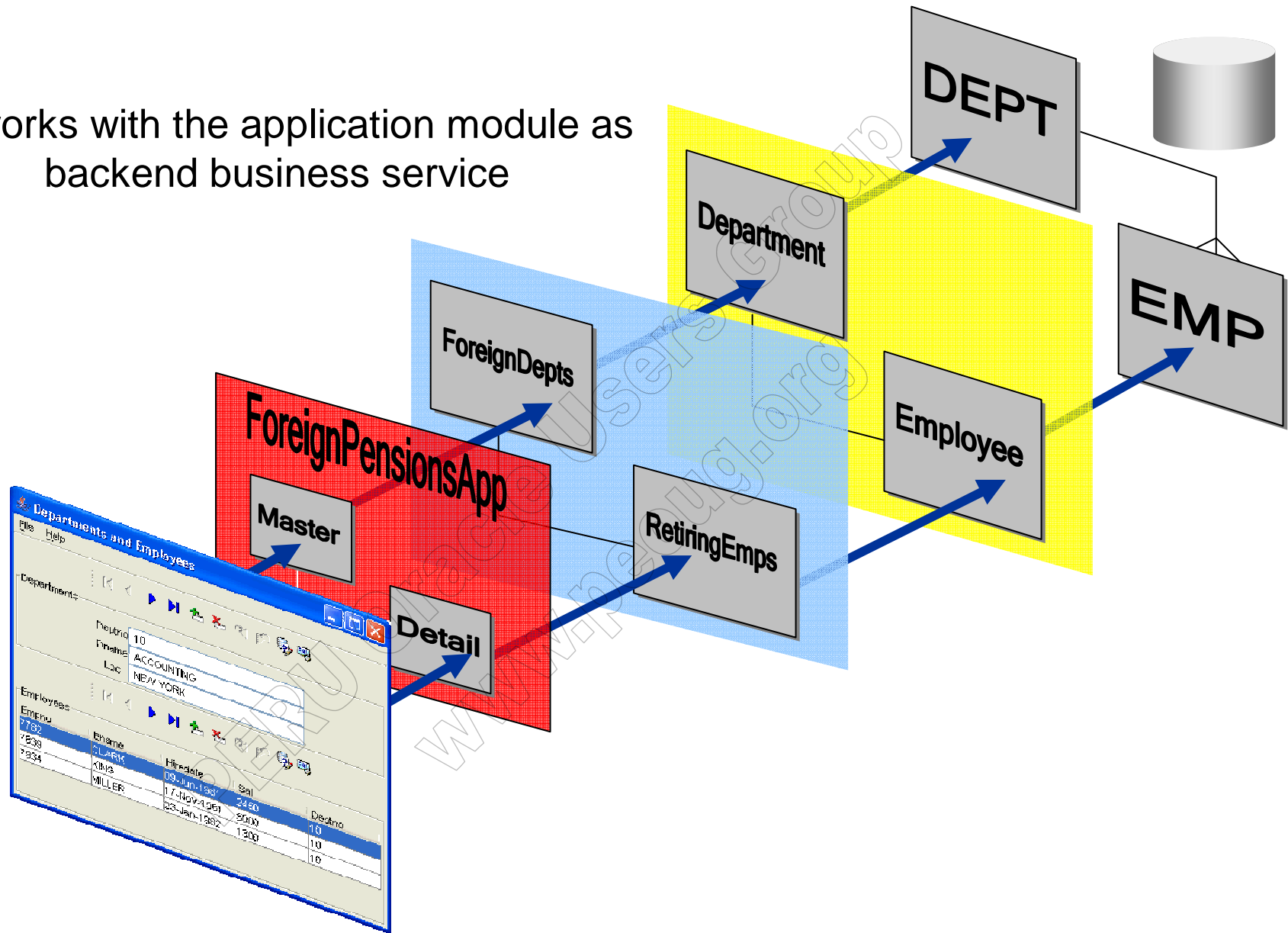


View objects encapsulate SQL queries to project, join, filter, order data for external client interaction

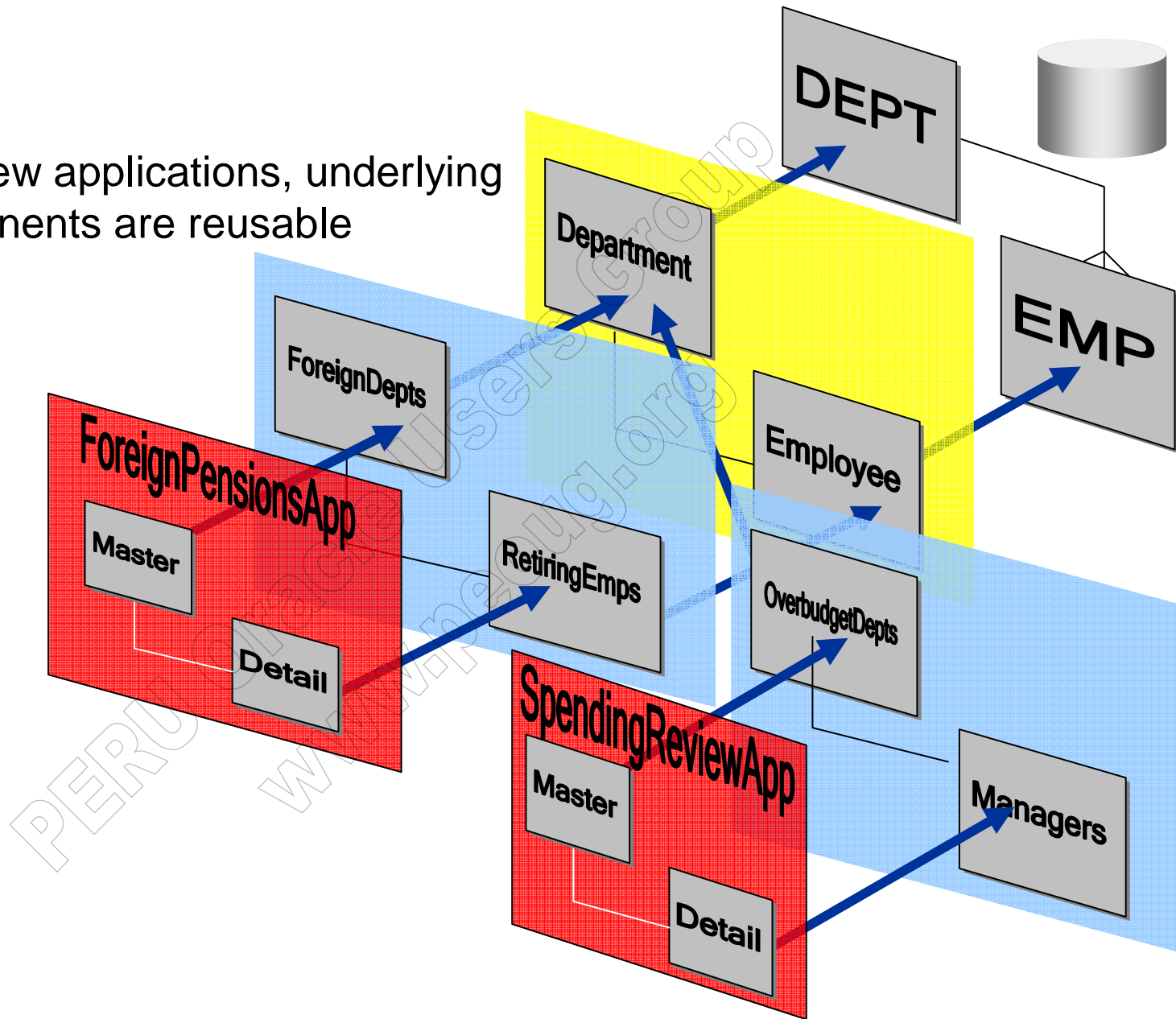


Application module defines data model of view object usages for a complete application use case

UI works with the application module as backend business service



As you build new applications, underlying components are reusable



# Defining Queries

**View Object Editor: CustomerView**

- Entity Objects
- Attributes
- SQL Statement**
- Bind Variables
- Attribute Mappings
- Tuning
- Java
- Client Interface
- Client Row Interface
- Custom Properties

**SQL Statement**

By default, the SELECT list and FROM clause are automatically maintained. To override this mechanism, select Expert Mode.

**Generated Statement**

```
Customer.LNAME,  
Customer.PHONENUMBER,  
Customer.EMAIL,  
Customer.PASSWORD,  
Customer.CREDITCARDTYPE,  
Customer.CREDITCARDNUMBER,  
Customer.STATUS  
FROM CUSTOMER Customer  
WHERE Customer.CUSTID = :thecustId
```

**Query Clauses**

Where:

Order By:

Expert Mode

Binding Style:

# ADF Faces

**Built on top of JSF APIs**

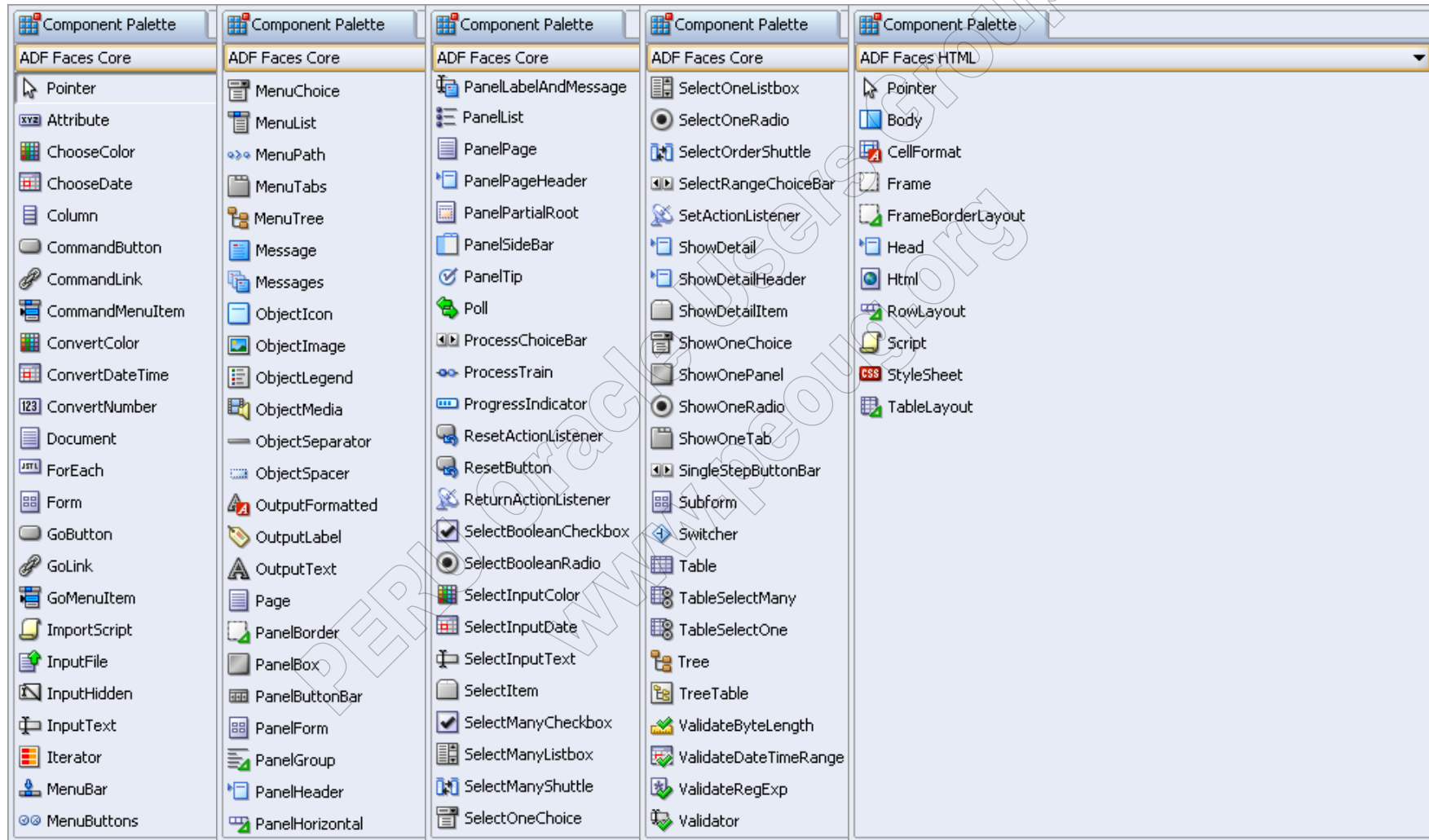
**100+ UI Components**

**Deployable on any compliant implementation of JSF**

**Provides much of what is missing in JSF 1.1**

- **Rich component set**
- **Client-side behavior**
- **Direct support for working with databases**
- **Partial Page Rendering (PPR)**
- **Dialog framework**
- **Skinning**

# ADF Faces Components



# DEMOSTRATION

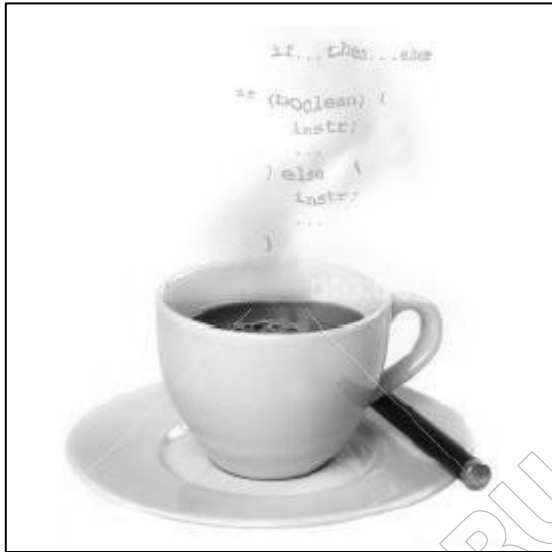


## JDeveloper

## Fusion Application



# The Next Application Platform



**Java EE 5**

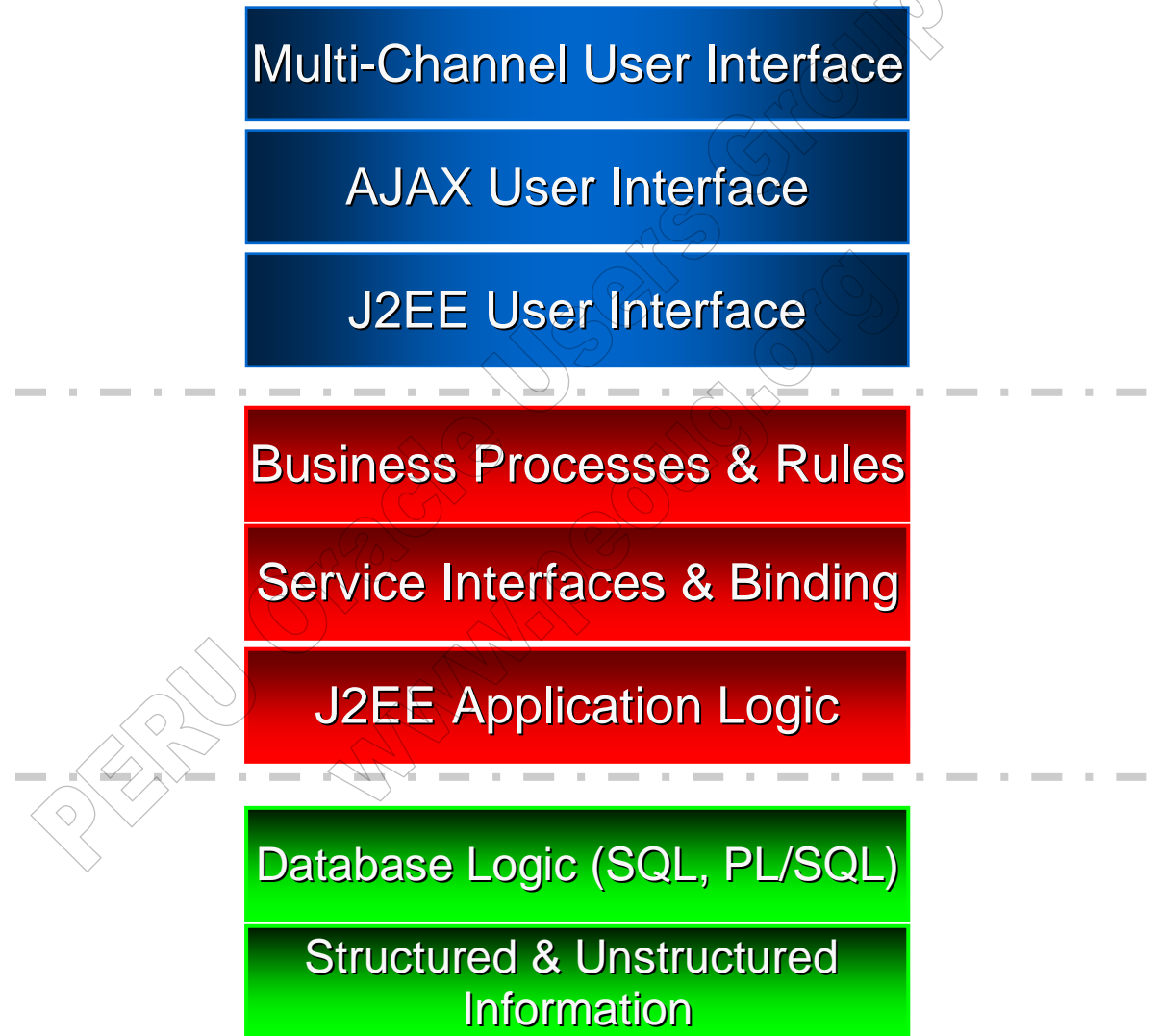


**SOA 2.0**

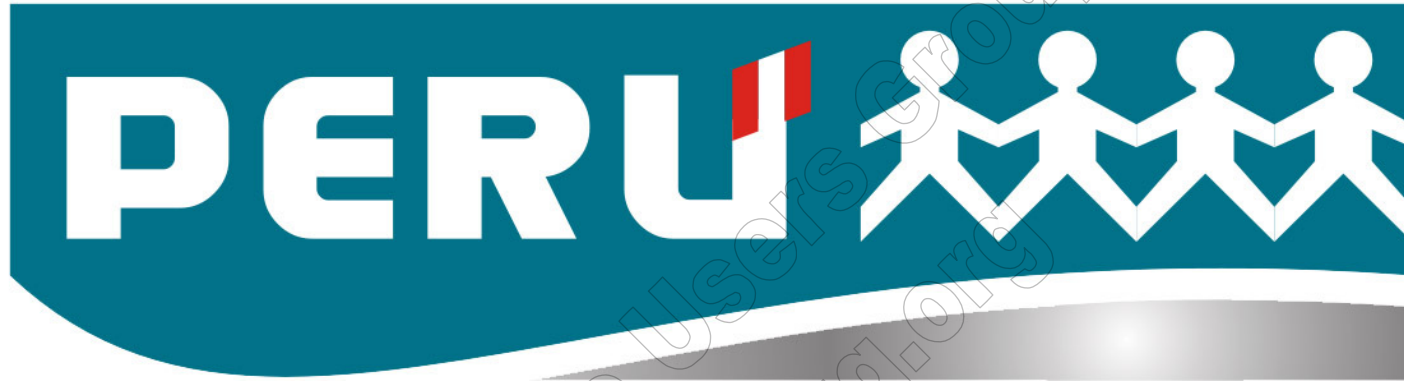


**Web 2.0**

# Application Development Tools



**P**  
**PREGUNTAS**  
**R**  
**RESPUESTAS**  
**R**



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