



A Guide to Fusion Development with Jdeveloper 11g

Session I

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Session I - Agenda

- Overview of Fusion
- Overview of SOA and Web-services
- History of Web development
- Oracle ADF Overview
- ADF Architecture
- Which Languages do I need to know?
- Getting familiar with Jdeveloper | I g IDE
- How to Learn ADF?
- Demo:
 - Quick Master detail application
 - Model Layer
 - Controller Layer
 - Presentation Layer



Overview of Fusion

What is Fusion?

- Oracle's effort to put all standard and integrated technologies under one umbrella
- **Oracle Fusion middleware**
 - Modern standard based technologies
 - Major components
 - SOA Suite
 - WebLogic Server
 - Oracle ADF / JDeveloper

Oracle Fusion applications

- New Name for Oracle e-business suite
- Developed in Oracle ADF



Overview of SOA and Web-services

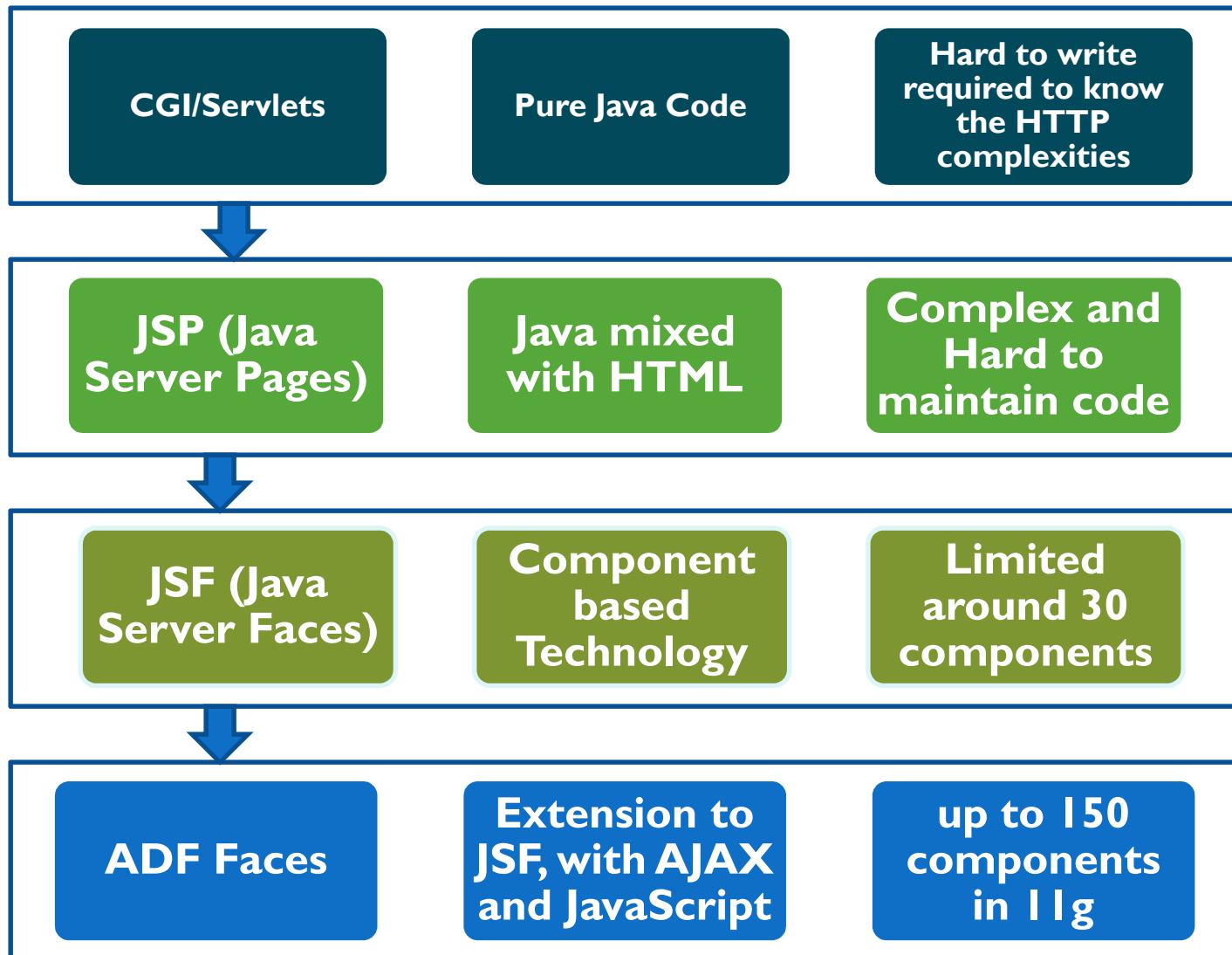
SOA (Service Oriented Architecture)

- Provides reusability, agility, scalability,
- Modern way to design applications
- Follows some standards and Principles

Web-services

- APIs that are accessed via HTTP
- Communicates via Messages
- Mainly classified into SOAP and REST
- Provides Integration between different applications

History of Web development





Oracle ADF Overview

- Application Development Framework
- Web, Desktop and Mobile applications
- Meta-data Framework
- Based on JEE Standard
- Extendable
- Follows MVC (Model View Controller) architecture

Main technologies

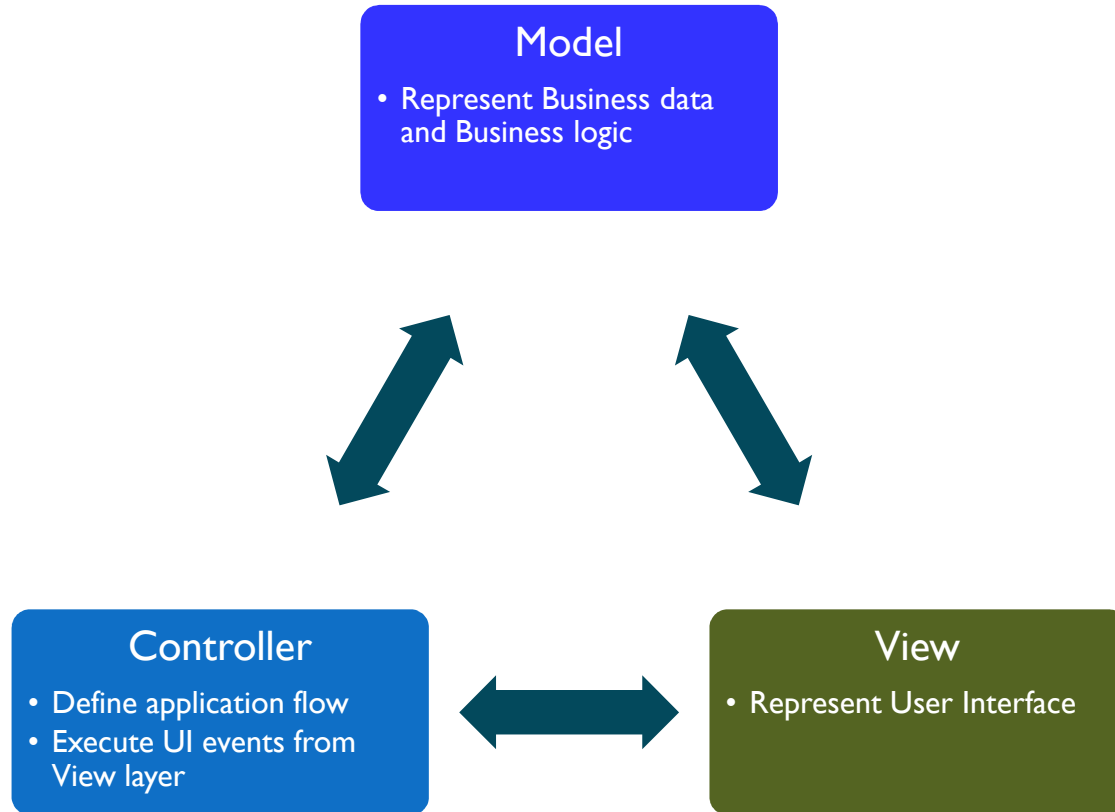
- ADF BC (ADF Business Components)
- ADF Controller
- ADF Faces



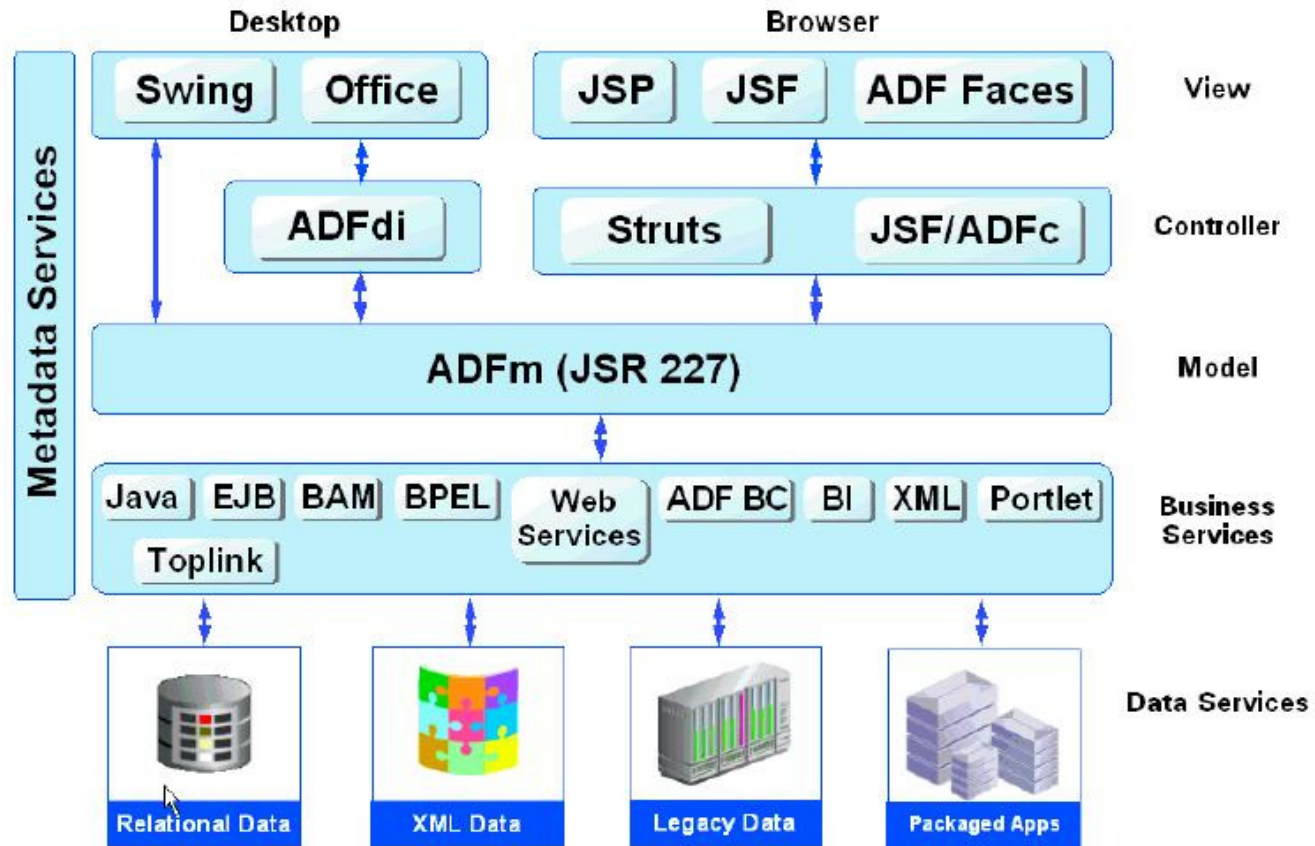
Oracle ADF Architecture - I

- Model
 - Represent Business data and Business logic
- Presentation Layer (View Layer)
 - Represent User Interface
- Controller
 - Define application flow
 - Execute UI events from View layer

Oracle ADF Architecture - II



Oracle ADF Architecture - III



Languages need to know

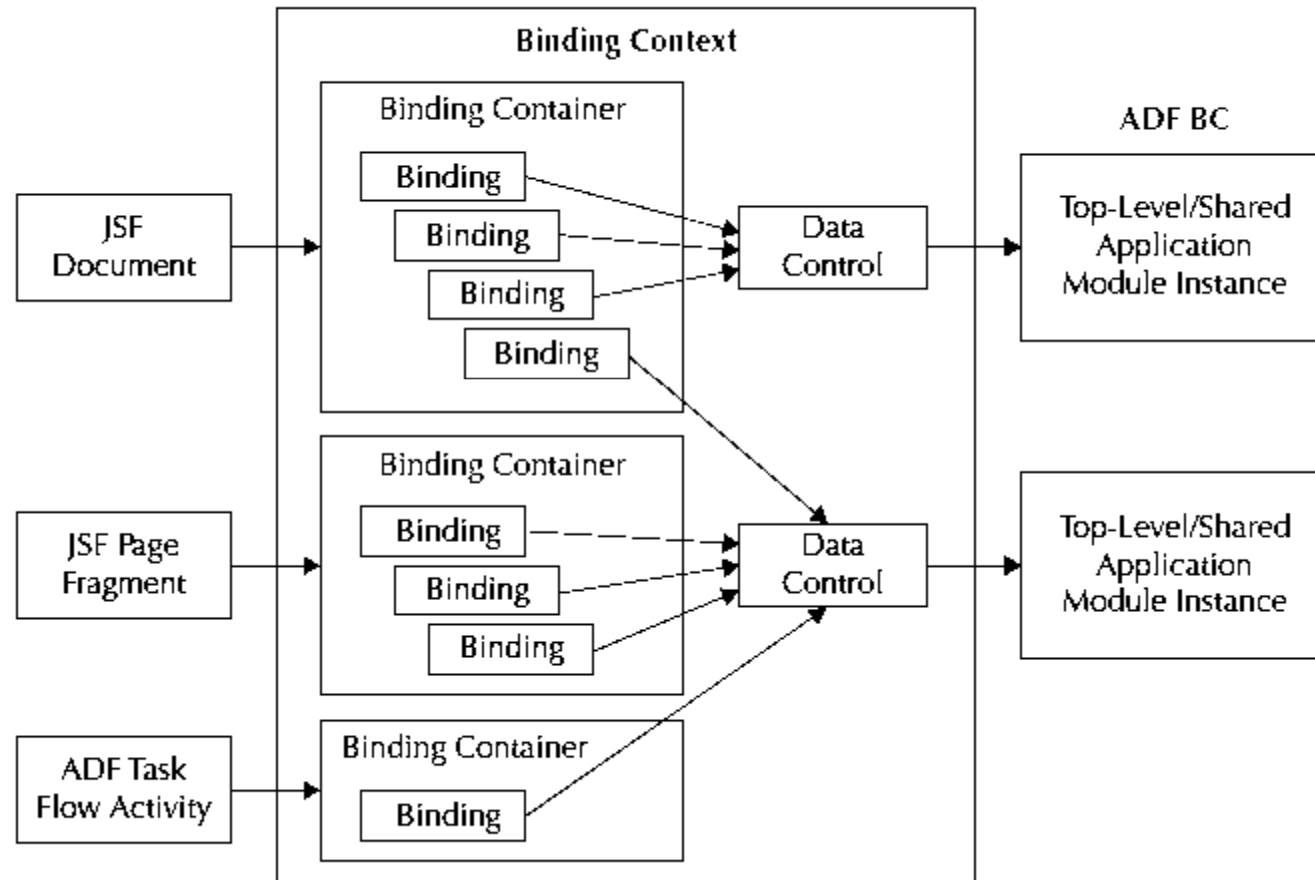
Language	Level of knowledge	Usage
Java	Intermediate	For Custom logic coding
JavaScript	Basic/None	For User interaction functionality
XML	Basic Syntax familiarity	JSF is XML style language
HTML	Basic/None	JDeveloper generates automatically but useful to know
Groovy	Basic	For Validation checks and attribute expressions
CSS	Basic/None	To Skin the application
Expression Language	Basic	Supply data to components from properties or Method



ADF Business Components (Model)

- Model layer has 2 services layers
 - Data Control
 - Data Binding
- Resides Business logic
- Handle business rules validations
- Main components
 - Entity Objects: Works as a table, perform DMLs
 - View Objects: Think as a Database block and Record Groups in Forms
 - Application Module: Exposed VOs to UI layer
 - Associations: Link between 2 or more EOs
 - View Links: Link between 2 or more VOs

Binding Layer (Model)





ADF Controller (Controller)

- It Controls the application flow and UI events
- Flow defines using Task flows
- Task flow types:
 - Bounded Task flows : One entry point and zero or more exit points
 - Un-bounded Task flows: Usually application entry points callable from anywhere and are not-secured
- Task Flow components:
 - View: Is a JSF Page
 - Method: Any procedure or operation
 - Router: Navigation decider
 - Wildcard: To provide easy navigation between pages
 - Task flow call: To call another Task Flow
 - Return activity: Exit point for BTFs



ADF Faces (ViewController)

- Provides standard look and feel UI Components
- AJAX and JavaScript enabled
- Partial page rendering (PPR)
- Supports client side validations and convertors
- Rendering Kits for Mobile, PDA devices
- Accessibility and Multilingual support



Jdeveloper the IDE

- Oracle's tool for future development
- Supports full development life cycle Design to deployment
- Wizard driven means less code to write less chances of errors
- One tool for all: Database, Desktop, Web, Mobile and more

- Provides cool features:
 - Wizards
 - Change Control (Subversion, CVS)
 - Code templates
 - Debugging, Profiling and Re-factoring
 - Code editors, Design view editors
 - Drag and Drop



How to learn ADF

- Learn Java at least syntax familiarity
- Online Cue Cards
- Oracle Jdeveloper Handbook I | g
- Fusion Developer Guide at OTN
- Web User Interface Guide at OTN
- Discussion Forums at OTN
- Blogs
- YouTube

Demo time

- **Demo**