Getting to Know You: Visual Builder and Oracle Redwood

Peter Koletzke

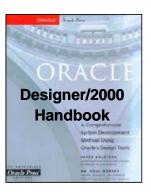
Technical Director & Principal Instructor





CV

- 39 yrs. database industry
- 31 yrs. consulting in Oracle arena
 - Since Oracle 5.1C, SQL*Forms 2.3
- 42 yrs. as trainer/presenter
- User groups
 - 390+ presentations, 12 awards
 - 13+ yrs. total on boards of directors
 - IOUG(-A), **NYOUG**, UTOUG
- Oracle ACE Director
 - Since program inception in 2005
- Oracle Certified Master
 - At program inception in Dec. 2001
- 8 Oracle Press books coauthored
 - 6262 pages total



JDeveloper 3

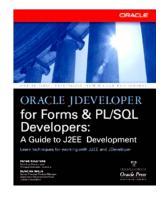
Handbook













You

- Visual Builder
- APEX
- ADF/JDeveloper/MAF
- Other Java Tools
- Oracle Forms
- PL/SQL
- Other?



Agenda

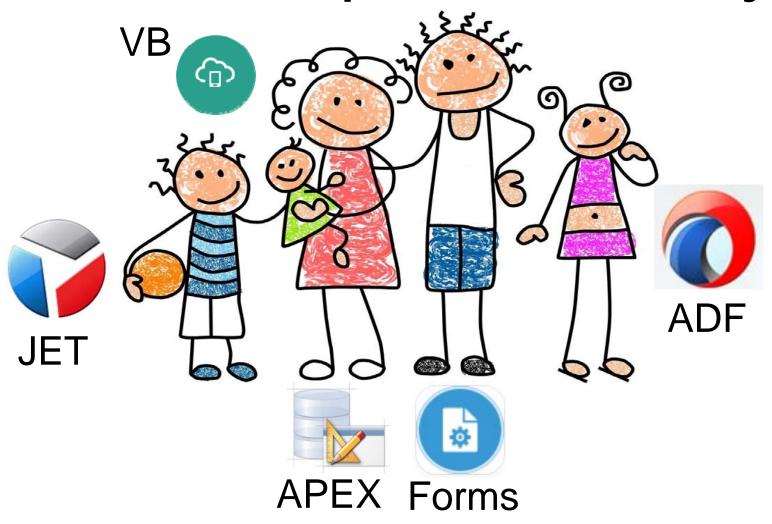
VB's Family

Visual Builder Quickstart

Redwood Quickstart

Resources

Oracle Development Tools Family





Oracle Forms

12.2.1.9

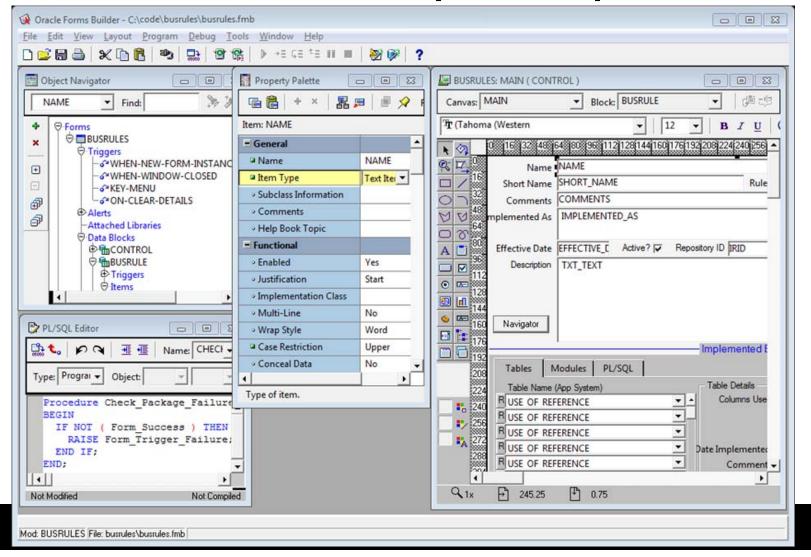
- Part of Oracle Developer (Fusion Middleware)
 - Packaged with Oracle Reports
 - BI Publisher is an alternate reporting tool
- Declarative programming + PL/SQL scripting
- Server runs Forms Runtime servlet
- Forms Runtime runs a compiled code file (.FMX)
- Form displays as a Java applet in the browser (or without a browser)
- No HTML!

www.oracle.com/technetwork/developer-tools/forms





Oracle Forms - Development Experience







Application Development Framework

12.2.1.4

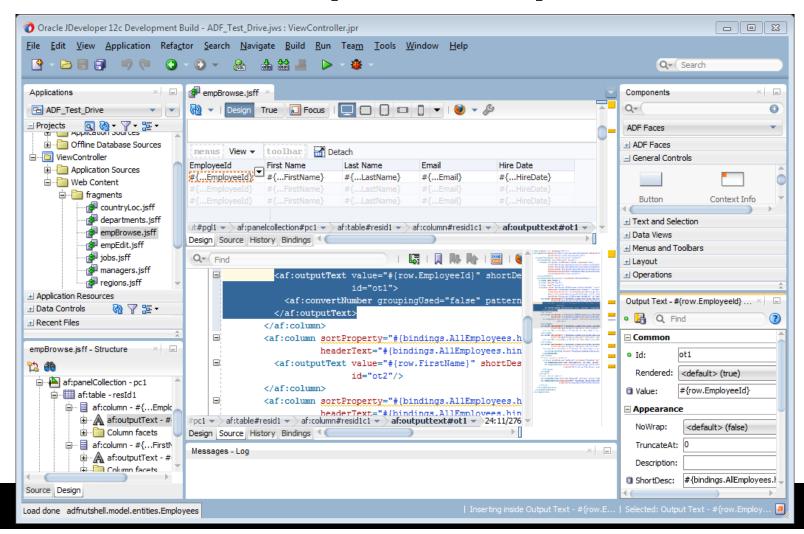
- Oracle's main Java-based development tool
 - Also, XML, Groovy, no HTML
- Positioned for enterprise-level applications
- Supports any Java framework
- Includes ADF-specific frameworks
 - Very highly evolved
- Used to build Oracle Cloud (f.k.a., "Fusion") applications; runs on WebLogic Server

www.oracle.com/technetwork/developer-tools/adf





ADF Development Experience







Application Express (APEX)

22.2

Pronounced

"Ae-Pex"

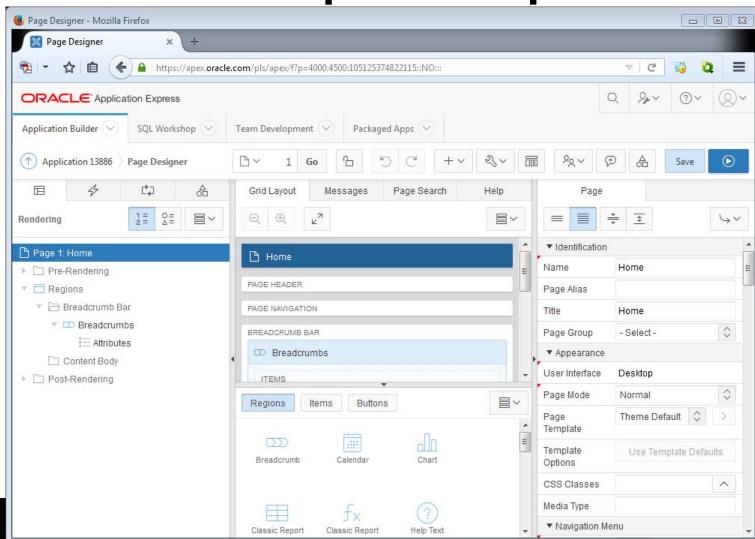
- Free tool distributed with the database
 - Installed by default with 11g and beyond; or separate download; or APEX cloud service
- Implemented in PL/SQL
- Runs in the browser
- Generates PL/SQL
- A layer on top of the PL/SQL Web Toolkit

www.oracle.com/technetwork/developer-tools/apex





APEX Development Experience







Oracle JavaScript Extension Toolkit

12.1.0

- A.k.a., JET
- Pure JavaScript coding
 - Secondarily: HTML5, CSS, SASS

Syntactically Awesome Style Sheets

- Need to understand:
 - Knockout.js, jQuery, CSS3, RequireJS (AMD)
- Used and refined internally at Oracle for 3+ years before releasing to customers

https://www.oracle.com/webfolder/technetwork/jet/index.html

JET vs. ADF

https://blogs.oracle.com/shay/ oracle-adf-or-oracle-jet-an-update





JET Features

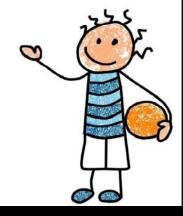
- "Modular" lots of prebuilt code samples
 - Cookbook on Oracle's website
- Mobile or web applications any web server
- Rich components, e.g. data visualization
- Upgrades to frameworks or libraries, require you to recode
 - No automatic migration of code as in ADF
- The heart of Oracle Visual Builder and Oracle Redwood





The JET Cookbook

- Visual samples
- Generates snippets for your app
- Key features notes
- JavaScript and TypeScript code to copy
 - With the relevant HTML
- Useful for custom code in Visual Builder, too





Overview

JET Cookbook's Live Sample and Code

Maine	1,277,072	1,285,692	1,295,960	1,306,513	1,313,688	1,318,787	1,323,619	1,327,040	1,330,509	1,329,590	1,327,651
Maryland	5,311,034	5,374,691	5,440,389	5,496,269	5,546,935	5,592,379	5,627,367	5,653,408	5,684,965	5,730,388	5,788,784
Massachusetts	6,361,104	6,397,634	6,417,206	6,422,565	6,412,281	6,403,290	6,410,084	6,431,559	6,468,967	6,517,613	6,566,440
Michigan	9,952,450	9,991,120	10,015,710	10,041,152	10,055,315	10,051,137	10,036,081	10,001,284	9,946,889	9,901,591	9,877,597
Minnesota	4,933,692	4,982,796	5,018,935	5,053,572	5,087,713	5,119,598	5,163,555	5,207,203	5,247,018	5,281,203	5,310,934
Mississippi	2,848,353	2.852.994	2,858,681	2,868,312	2.889.010	2,905,943	2,904,978	2.928.350	2.947.806	2,958,774	2,970,615

Files used in this demo: DemoArrayDataGridProvider.js Info demo.html × demo.ts demo.css ▼ 🛅 demo <html lang="en-us" style="height:100%;" dir="ltr"> <head>↔</head> demo.html <body class="demo-disable-bg-image"> 26 4 27 4 <div id="sampleDemo" class="demo-padding demo-container"> ▼ 🛅 js 28 4 <div id="componentDemoContent" style="width: 1px; min-width: 100%;"> 29 <div id="datagrid-container"> main.js <div class="oj-panel oj-bg-info-30 oj-sm-margin-4x-bottom"> <oj-button id="piovt" on-oj-action="[[pivot]]">Pivot</oj-button> demo.js 33 </div> <oj-data-grid 34 4 35 id="datagrid" demo.ts 36 class="demo-data-grid" 37 aria-label="Data Grid Cell Based Grid Demo" ▼ 🏲 css 38 data="[[dataGridProvider]] selection-mode.cell="multiple" scroll-policy="loadMoreOnScroll" demo.css header.row.class-name="demo-data-grid-header-row" header.column.style="[[getColumnHeaderStyle]]"

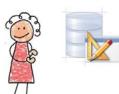
https://www.oracle.com/webfolder/technetwork/jet/jetCookbook.html

TS











VB Family Developer Audiences

Oracle Forms

Legacy Forms developers supporting Forms apps

Oracle ADF

- Java developers
- Forms developers trained in Java

Oracle APEX

- Forms developers
- PL/SQL developers

JET

- JavaScript developers
- ADF, Forms, or APEX developers trained in JavaScript

Agenda

VB's Family

Visual Builder Quickstart

Redwood Quickstart

Resources



Visual Builder

VB

- Formerly, "Application Builder Cloud Service" or "Visual Builder Cloud Service"
- "JDeveloper on the cloud"
- Development of web and progressive web apps
- VB Studio
 - VB integrated with...
 - Developer Studio for DevOps
 - CI/CD tool
 - Handles all phases of software development/deployment





VB Features

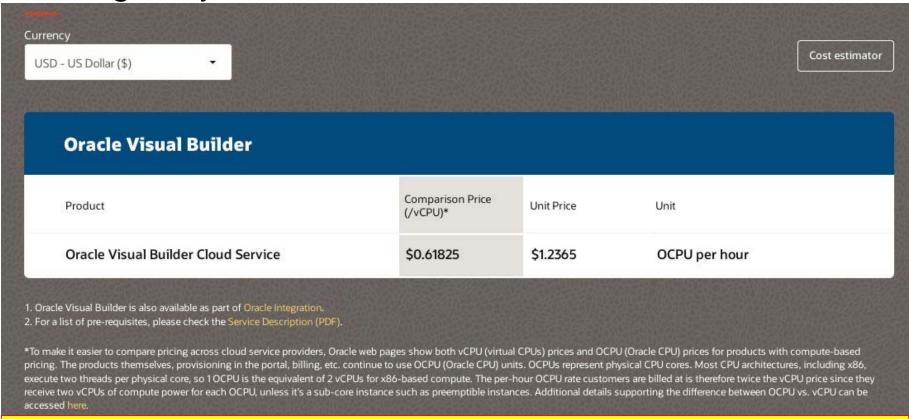
- Originally developed for non-programmers
 - Now targeted at professional developers of any discipline
- Generates code mainly JavaScript
- Data is supplied as REST services
 - -Representational State Transfer
- Development via a web page
 - No additional install needed
 - The app is published to the Web





VB Quickstart - Pricing

Charged by OCPU



https://www.oracle.com/application-development/visual-builder/



VB Quickstart - How to Access

- Cloud account
 - "Always Free" (with the \$300 trial credits)
 - Paid account
- SaaS account
 - Included in the Fusion apps TEST instance
 - Limited to SaaS data and external sources that do not need authentication (for example, OAuth)
- Chrome browser only for development
- Other browsers for runtime







VB Quickstart - Data Sources

Select Source

What is the source of your service connection?



Select from Catalog

You can select a service from our catalog of predefined service connections.

Oracle Cloud Applications or Oracle Integration instance endpoints



Define by Endpoint

You can point us to the URL of an endpoint and define its parameters declaratively.

external REST endpoint URL



Define by Specification

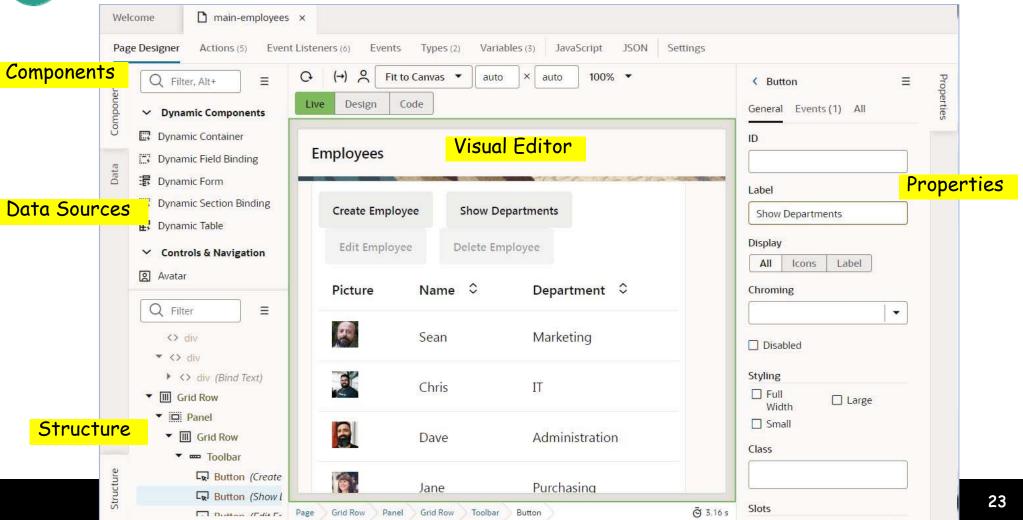
You can provide a service specification document that describes the service.

Swagger or Oracle ADF file that describes a service

Or: import test data from a file



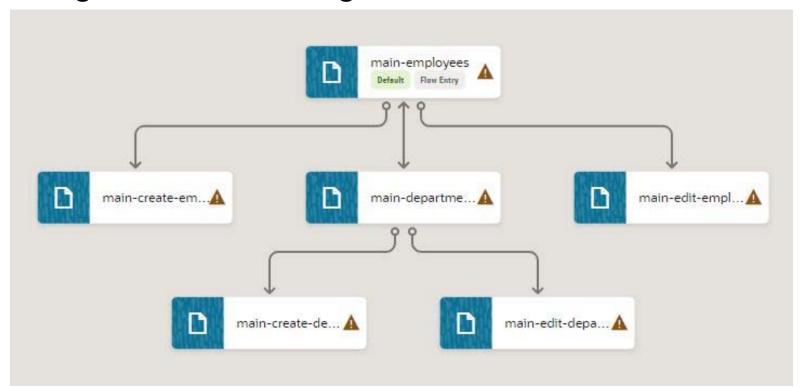
VB Quickstart - Page Layout





VB Quickstart - Page Flow

Navigation from user gestures like a button click or Save



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Oracle Redwood

- Premiered as new look and feel: oracle.com, OOW 2019
 - Inspired by Asian, African, Aboriginal art
- No additional info for three years then:
 - Big release at OCW 2022
- Relevant history:
 - https://www.oracle.com/corporate/blog/oow19-redwood-user-experience-cooperman-091619.html
 - https://www.youtube.com/watch?v=mAR5BWR3zcU

Oracle Redwood Design System

Based on extensive User Experience (UX) testing
 "...intelligent search, a self-learning recommendation engine for incorporating business objects, a conversational engine for voice interfaces, and telemetry services that deliver real-time

feedback on application performance and integrity." (source)

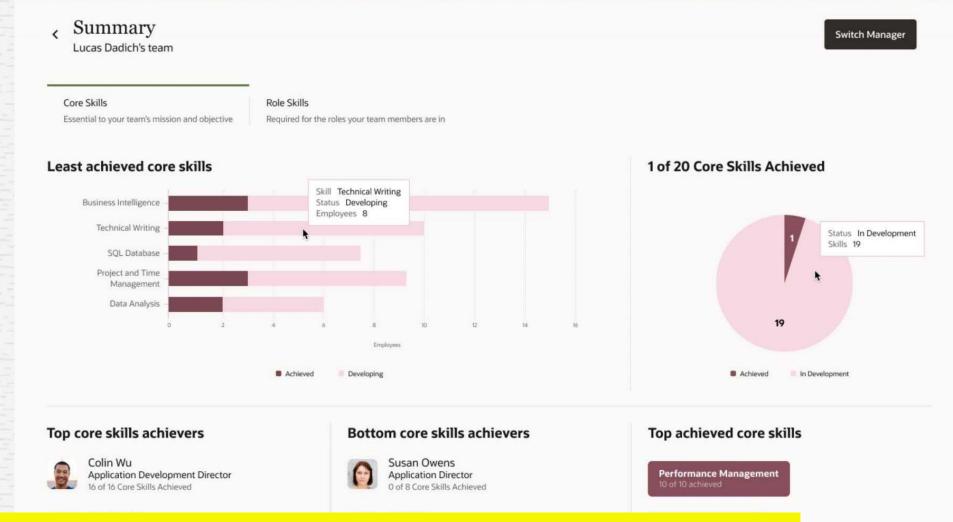
- Used to build Oracle Cloud/Fusion Applications
- Use it to extend Oracle Cloud/Fusion Apps
- Use it to build your own apps

https://redwood.oracle.com

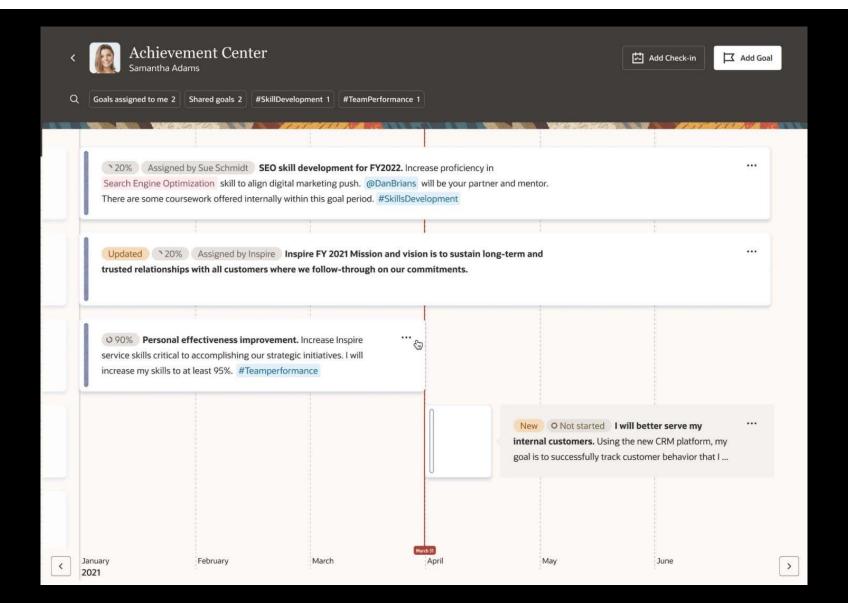
Oracle Redwood Features

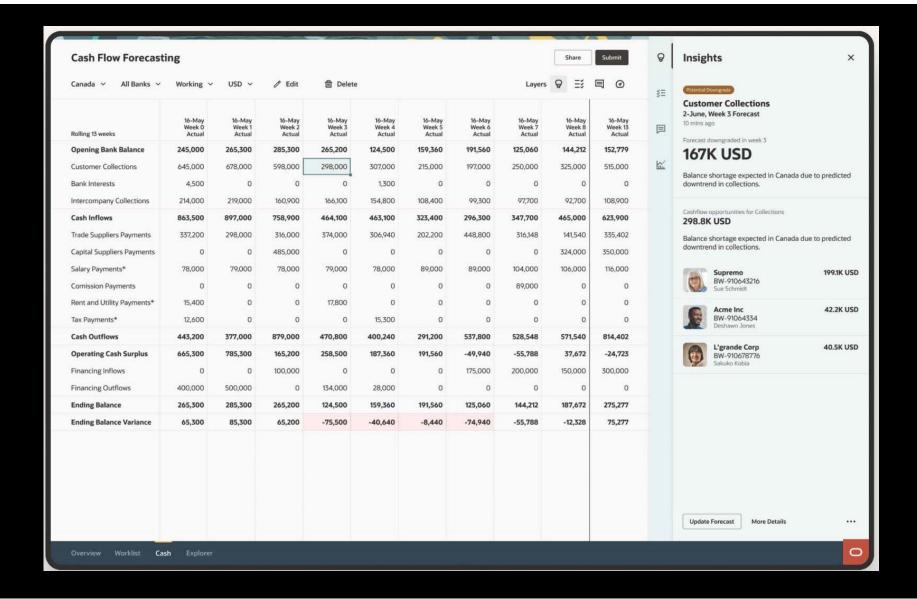
- UX Building Blocks
 - Available in Visual Builder
 - 90+ JET components
 - 80+ composites multiple components
 - 40+ page patterns multiple composites/components
 - Info about all of those in Visual Builder
- In APEX
 - 20.1+ UI and App Builder aligned with Redwood
 - 20.2+ Redwood Light Theme
 - App Builder will have Redwood theme "soon"

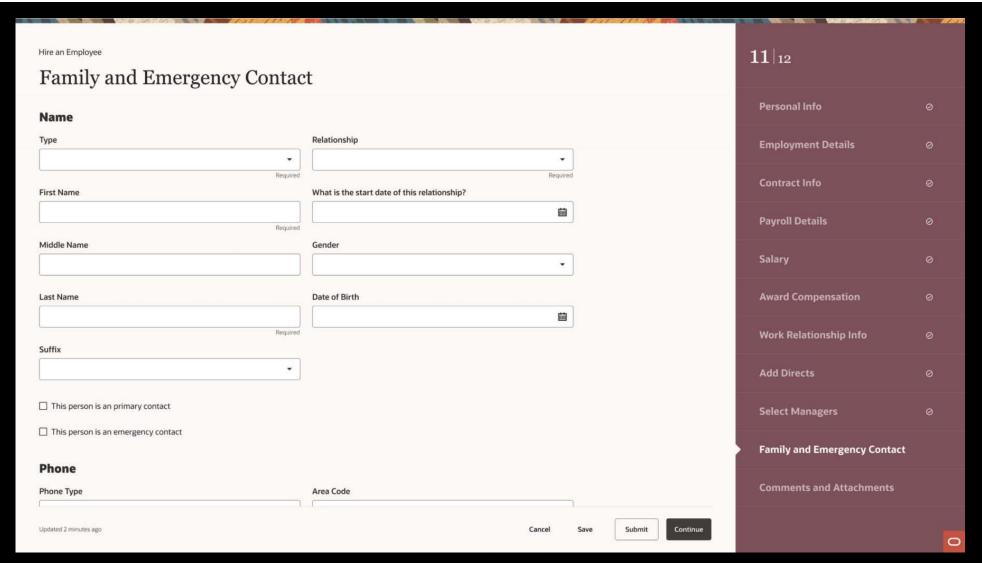


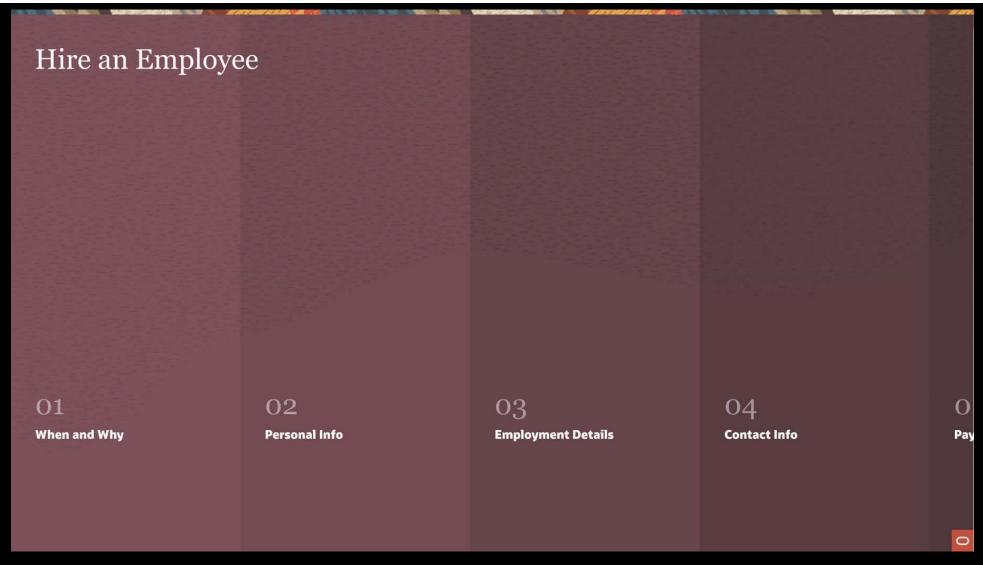


Sample Oracle Apps Pages from an Oracle briefing

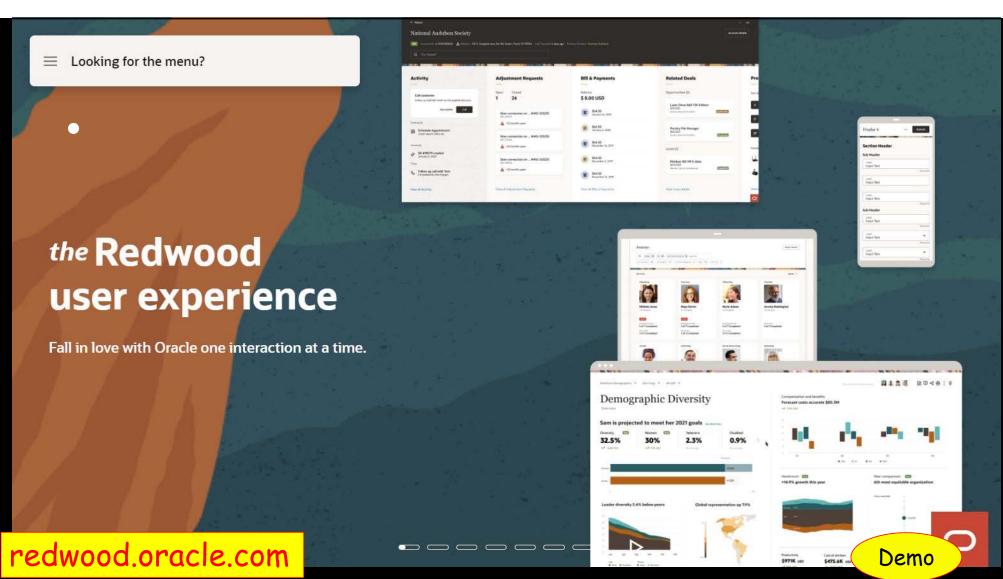












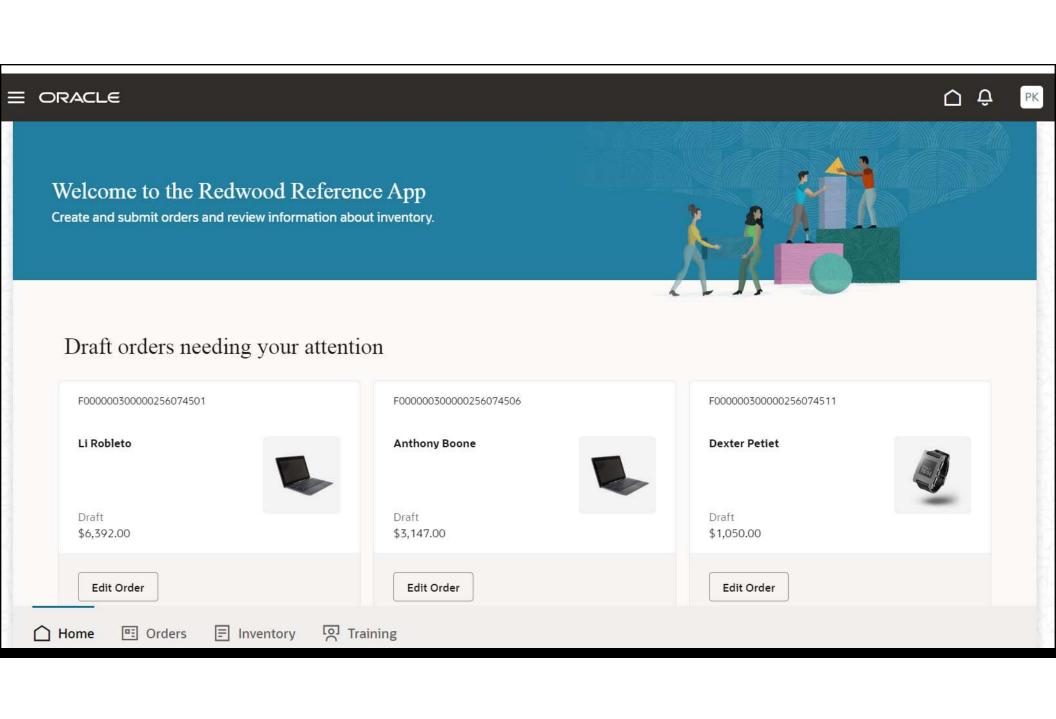
Redwood Quickstart Guide - in VB

- Redwood Starter App Template
 - Redwood components
 - New pages are empty
- Redwood Reference App

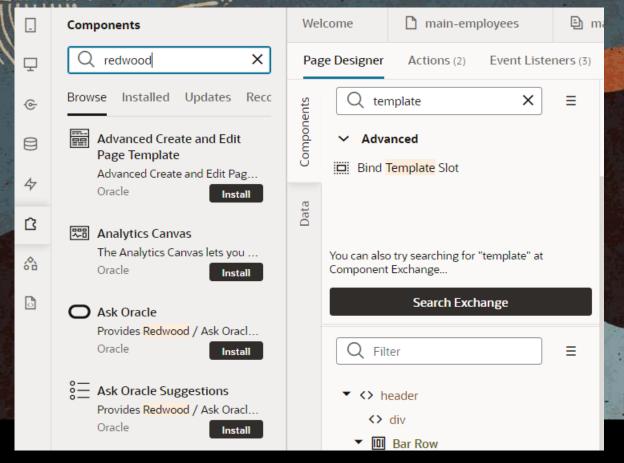
https://redwood.oracle.com/?pageId=CORE07B121AA579B419FB47F8D03F6926F70&shell=getting-started

Your own reference app

https://fa-ewki-saasfademo1.ds-fa.oraclepdemos.com/fscmUI/redwood/rwdref



Redwood Quickstart Guide – in VB Search for building blocks in the Component Exchange



Demo

Agenda

VB's Family

Visual Builder Quickstart

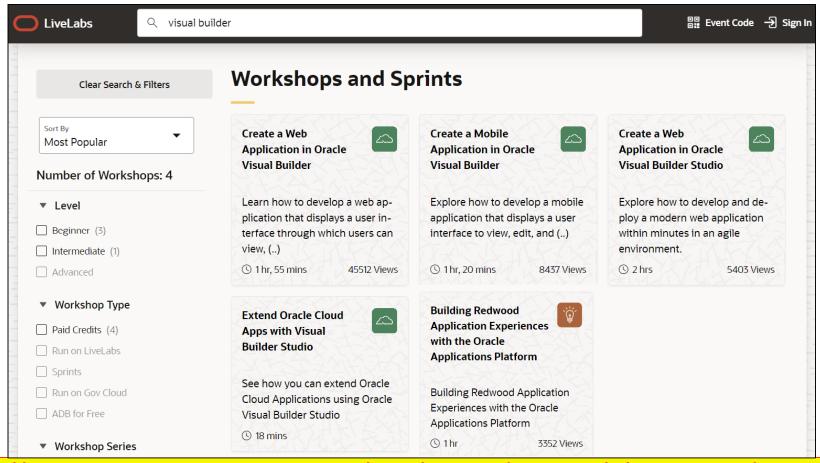
Redwood Quickstart



Main Resources - at Oracle

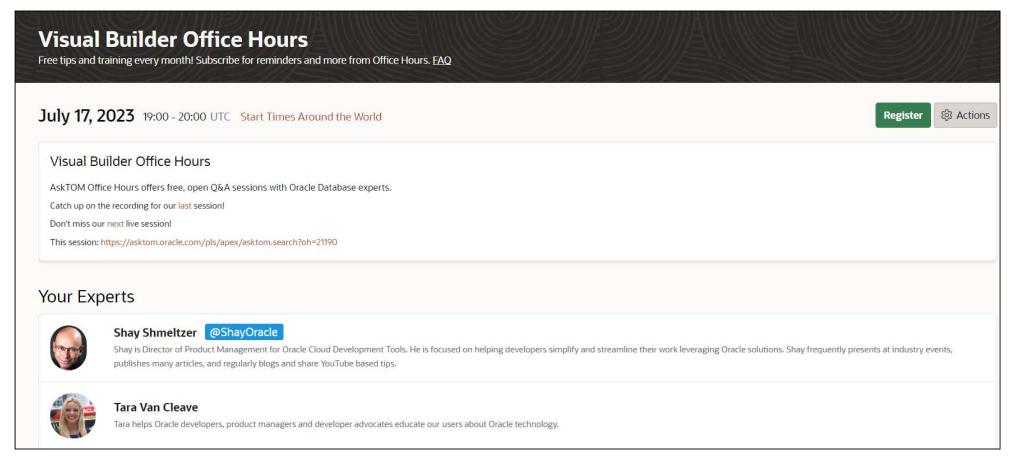
- Live Labs
 - https://developer.oracle.com/livelabs
- Community
 - https://docs.oracle.com/en/cloud/paas/app-builder-cloud/community.html
- Cloud Customer Connect Forum
 - https://community.oracle.com/customerconnect/
- Blogs
 - https://blogs.oracle.com/shay/
- Redwood
 - https://redwood.oracle.com
- Docs
 - https://docs.oracle.com/en/cloud/paas/visual-builder

LiveLabs

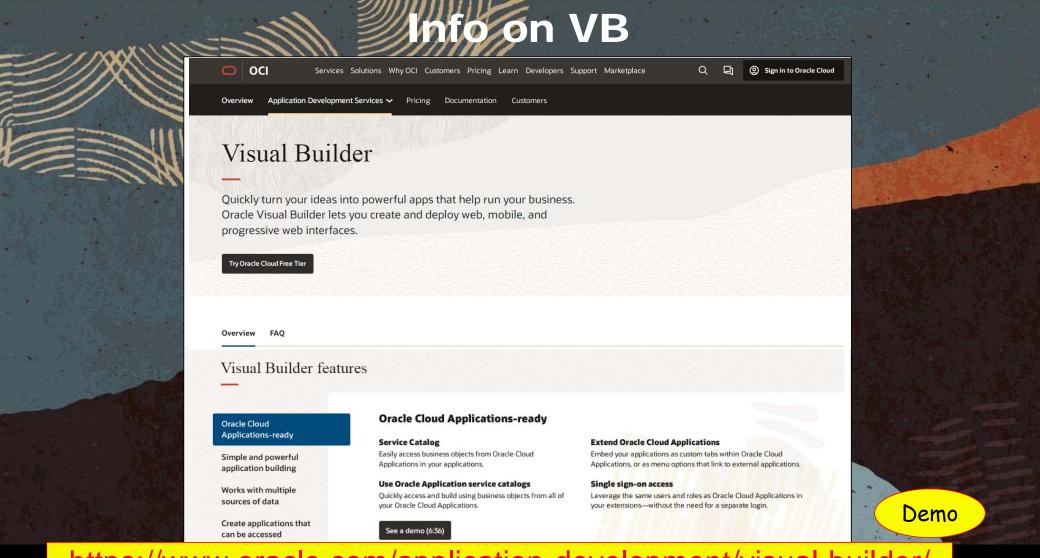


https://apexapps.oracle.com/pls/apex/dbpm/r/livelabs/home

AskTom Office Hours



https://asktom.oracle.com/pls/apex/asktom.search?oh=11862



https://www.oracle.com/application-development/visual-builder/

Summary

- Oracle's current development toolset has specific audiences
- Visual Builder provides a declarative and visual way to define sophisticated features to your JavaScript app
- Visual Builder Studio gives you access to CI/CD functions
- Oracle Redwood supplies templates and high-level composite components
- All of this is much more productive than rolling your own JavaScript app







Interested in volunteering?Scan the code to sign up





Don't Forget ToFill Out Your Evals





- Thank you for attending
- Slides and video will be at www.nyoug.org



www.utoug.org