

Voyage to Visual Builder Cloud Service

Great Lakes Oracle Conference

May 15th - 16th, 2019

Cleveland Public Auditorium
Cleveland, Ohio



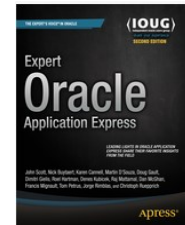
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TH TECHNOLOGY
@thtechnology

- Classic Apps vs Visual Apps – you want Visual Apps, the Newer (Current) option

About Me ...

- TH Technology – Oracle Consulting Services, APEX Focus
- **Mechanical/SW Engineer** - Analyzed, designed, developed, converted, upgraded, enhanced legacy & database applications for 30+ years
- **Building Web/APEX applications** for government, medical, engineering industries since HTMLDB beginnings
- **Leveraging Oracle, Oracle tools 25+ years**
- **ODTUG Director, Editor Emeritus, Technical Journal**
- **Oracle Ace** 
- **APress Author**



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Washington State
Convention Center

About You ...

- Oracle Technology ?
- Low Code Platform?
- Cloud Accounts?
- Why Are You Here?

Why This Presentation?

- Intro to VBCS
- MY Experience – How Hard Is it?
- Building a Web App with VBCS
 - Investment to Productivity?
- Compare /Contrast w APEX

Agenda

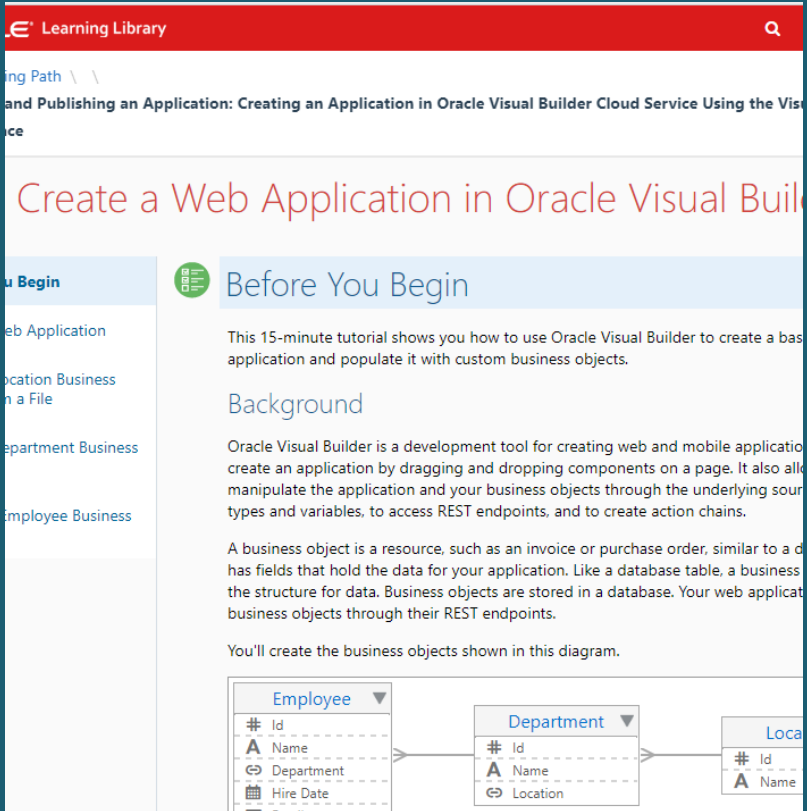
- Why ?
- VBCS Intro
 - Into a Cloud Trial/Account
 - Build An App
- Feature Review
- Compare and Contrast
- Wrap-Up

Why Does an APEX Gal Decide to Learn VBCS?

- Cloud
- Low Code
- JavaScript / JET
- Mobile and Desktop
 - Possible Reuse of Oracle Expertise?
- Curiosity
- Challenge

Voyage to VBCS

Intro to VBCS



The screenshot shows the Oracle Learning Library interface. The top navigation bar is red with the 'e' logo and 'Learning Library' text. Below it, the breadcrumb path is 'Learning Path \ \'. The main title is 'and Publishing an Application: Creating an Application in Oracle Visual Builder Cloud Service Using the Visual Builder Cloud Service'. The page content is titled 'Create a Web Application in Oracle Visual Builder'. On the left, there is a sidebar with a 'Get Started' button and a list of topics: 'Web Application', 'Location Business', 'Department Business', and 'Employee Business'. The main content area has a 'Before You Begin' section with a green 'Get Started' button. It contains a 15-minute tutorial description, a 'Background' section explaining Oracle Visual Builder and business objects, and a diagram showing the relationships between Employee, Department, and Location business objects.

Before You Begin

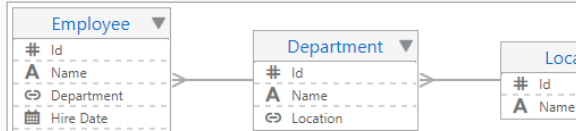
This 15-minute tutorial shows you how to use Oracle Visual Builder to create a basic application and populate it with custom business objects.

Background

Oracle Visual Builder is a development tool for creating web and mobile applications. You can create an application by dragging and dropping components on a page. It also allows you to manipulate the application and your business objects through the underlying source types and variables, to access REST endpoints, and to create action chains.

A business object is a resource, such as an invoice or purchase order, similar to a database table. It has fields that hold the data for your application. Like a database table, a business object defines the structure for data. Business objects are stored in a database. Your web application interacts with business objects through their REST endpoints.

You'll create the business objects shown in this diagram.



```
graph LR; Employee --> Department; Department --> Location;
```

The diagram shows three business objects: Employee, Department, and Location. Employee has fields: Id (primary key), Name, Department, and Hire Date. Department has fields: Id (primary key), Name, and Location. Location has fields: Id (primary key) and Name. Arrows indicate relationships: Employee to Department (on the Department field) and Department to Location (on the Location field).

Visual Builder Cloud Service

- Cloud-Based Low Code Dev Tool
- Web and Mobile Apps
- Business Objects
- Types, Variables
- Access Data via REST Endpoints
- Action Chains (Navigation)
- Code (JS JET) Optional

Demo Simple VBCS App

First Impressions

- No Database Objects
- No Thick Database
- Everything Data is REST
- JET Everything Else
- Less Hands-On Coding
- No “Save”s



Into a Cloud Account

- Trial – 30 days ELAPSED
- Changes – Classic vs OCI vs New
- Where to Go?
- Use Your Cloud Account Advocates/Representatives

Cloud Resources

- Trial – Oracle Contact
- Cloud Days
- Conferences
- Online Material
 - Learning Library
 - Forum
 - VBCS Pages
- Shay Shmetlzer Blogs

Time Investment

- More Than 30 Days!
- Attend Webinars/ Conferences
- Be A Vacuum

Into Your Cloud Account ...

- Find Visual Builder
- Create Instance
 - Start/Stop Instance
- Open Visual Builder Console

The Visual Builder IDE

- **Browser (Cloud) –Based**
- **Jdev-Like Component Selection**

JET

- Everything is JET
- IF You Need to Adjust Code...
 - Oracle JET Cookbook is your Friend

REST

- Everything Data is a REST Service
- No Direct Data Access
- No SQL, PL/SQL

Flow == Navigation

Authentication and Authorization

- Anonymous
 - Anonymous Has Configuration Steps
- Other Options

Data Security

- Back-End
- Enforced at Service Endpoint
 - By Business Object
 - Not By Field
- External REST Services
 - No VBCS Override

Users and Roles

- Role-Based UI
- Page or Component
- Enforced on Client
 - Secure the Data Too!

```
<oj-bind-if test="$application.user.roles.role_name" > </oj-bind-if>
```

The Transition from APEX

- JET / JavaScript - No PL/SQL
- Everything is REST
- Visual Events/Actions

- **Drag and Drop Everywhere**

“Business Objects”

- Analogous to Tables
- Upload via Spreadsheet
- Builds REST Behind the Scenes
 - Update to Business Object Updates the REST!

Business Objects

- Store Data
- Maintain Relationships (“joins”)
- REST Interface
- Execute Business Logic re the Data

Business Objects, more

- Triggers, Functions, Validations
- Invoke From App or Outside
- Groovy Language
- Ex: Trigger Event to Send Email

(Reuse of ADF Business Components –
so ADF BC Groovy references apply)



A multi-faceted language for the Java platform

[Apache](#) Groovy is a **powerful, optionally typed and dynamic** language, with **static-typing and static compilation** capabilities, for the Java platform aimed at improving developer productivity thanks to a concise, **familiar and easy to learn syntax**. It integrates smoothly with any Java program, and immediately delivers to your application powerful features, including scripting capabilities, **Domain-Specific Language** authoring, runtime and compile-time **meta-programming** and **functional** programming.



Flat learning curve

Concise, readable and expressive syntax, easy to learn for Java developers



Powerful features

Closures, builders, runtime & compile-time meta-programming, functional programming, type inference, and

Groovy Example

Desktop App

Mobile App !!

- Mobile App Interface
- Live Viewer – Change Phones
- Stage
- Deploy
- Android or iOS

Progressive Web App

Styling (Look and Feel)

- Manually in CSS
- JET Themes
 - SASS Only
 - Direct CSS on oj-* Not Supported
- Alta UI – Default
- JET Theme Builder
- No VBCS Theme Builder

How to Upgrade an Instance?

- **You Don't!**
- **Upgrades Pushed Out**
 - 18.4.5 – Dec 2018
 - 19.1 – March 2019

VBCS 19.1 New Features (March 2019)

- Progressive Web App Packaging
 - Web App Deployment Option
- Cordova Plug-ins
 - Leverage On-Device Features
- Take Photo Action
- New Mobile Template
- Content Exchange

Content Exchange

- March 2019 Release
 - <https://blogs.oracle.com/groundside/introducing-the-new-component-exchange-feature-in-oracle-visual-builder>
- VBCS and JET UI – Unified Component Plugins
 - JET Custom Web Components
 - Web Components – standard, [webcomponents.org](https://www.webcomponents.org)

Extras!

Oracle Developer Cloud Service

- Free!
- GitHub Repository –
- Auto Version Control via Git Repo connection

Extras!

Oracle Process Cloud Service

- Point and Click Business Process Builder
- Drag and Drop Into VBCS

Investment ... Learning

- TIME To Learn > 30 Days
- JavaScript / JET
- Groovy

Operating Costs ...

- Cost Estimator
- Pay As You Go
- Monthly Flex
- Know Your Data, Your Usage

- https://cloud.oracle.com/en_US/cost-estimator

cloud.oracle.com/en_US/cost-estimator

ORACLE Cloud

Sign In Contact Chat English Try for Free

Applications Platform Infrastructure Resources

Cost Estimator

Selecting a Payment Plan

Pay As You Go * \$2,124 /mo Buy

~33% Monthly Flex * \$1,433 /mo Buy

USD - US Dollar (\$)

- ☐ Infrastructure
- ☐ Autonomous Data Management
- ☐ Data Management
- ☒ Application Development
- ☐ Integration
- ☐ Management
- ☐ Content and Experience
- ☐ Analytics
- ☐ Security
- ☐ BYOL
- ☐ Search

Oracle Container Pipelines - Enterprise

CCI/CD developer automation platform designed for Microservices and Container Architecture

Add

Oracle Visual Builder Cloud Service

Starter environment to build web and mobile-based SaaS extensions and bespoke applications using a low-code development environment

Add

Configuration Load/Save Save as PDF Export Import Share

Need Help? Video Documentation

Extra Monthly Flex Discount	1 Year Term	Cloud Credits	Extra Discount	Your Price
applied to monthly flex base price		\$1,433 /mo	0%	\$1,433 /mo

Configuration Options

Pay As You Go Monthly Flex

Oracle Visual Builder Cloud Service \$2,124 \$1,433

Question 1

- **VBCS Classic vs. Enterprise?**
 - Visual / Enterprise is the Better Product (think of it as Version 2), More Advanced Applications
 - Classic Is Limited in Functionality (Version 1)

Question 2

I Have Millions of Rows Across 5 Business Objects for a SaaS Extension App.

Can VBCS Handle This Volume of Data?

What is the Best Way to Handle High Data Volume for SaaS Extensions?

Can VBCS Handle Data Volume?

- It Depends.
- No Direct SQL Access
 - No Indexing
 - No PL/SQL Manipulation
- Use DB Cloud Service, Expose Objects via REST (ORDS)

Question 3

- Can I Customize the Look and Feel of My VBCS Apps?

ex: Match the SaaS Theme?

Can I Customize the Theme?

- SaaS Theme - Coming
- Ability to Customize Theme - Coming
- Use JET Theme Builder, Apply to VBCS App

<https://blogs.oracle.com/vbcs/styling-visual-builder-cloud-service-applications>

Learning Curve

Time! Invest Time!

Switch Your Brain

Do The Examples

tice .

Recap

- Understand VBCS
- Overview
 - Drag-Drop
 - REST
- Key Differences from APEX

Learn More!

- VBCS Learning Path

The image shows a screenshot of the Oracle Visual Builder Cloud Service (VBCS) interface. At the top, there's a red header with the Oracle logo and the text "Oracle Visual Builder Cloud Service Blog". Below this, a navigation bar shows "EasyApps" and a search icon. The main content area displays a dashboard with a sidebar for "Web Apps" (Travel, flows, main) and a central pane titled "My Application" showing "Travel Statistics". A "Filter" section is visible on the left. At the bottom, there's a blue button that says "Try Oracle Cloud Platform For Free". Below the button, there's a social media sharing section with icons for Facebook, Twitter, LinkedIn, Google+, YouTube, Instagram, and RSS. The footer includes the Oracle logo, the text "ORACLE VISUAL BUILDER CLOUD SERVICE | May 16, 2018", and the title "Oracle Visual Builder Cloud Service Learning Path".

ORACLE

Oracle Visual Builder Cloud Service Blog

Oracle Visual Builder Cloud Service

EasyApps

Web Apps

Travel

flows

main

My Application

Travel Statistics

Region

Switch

shay.shmeltzer@oracle.com

Filter

Common

Field

Chart

General

Data

Events

All

Chart Type

Try Oracle Cloud Platform For Free

ORACLE VISUAL BUILDER CLOUD SERVICE | May 16, 2018

Oracle Visual Builder Cloud Service Learning Path

Learn More!

- Oracle Learning Library



ORACLE Learning Library



Log In

Help



[Find a Learning Path](#) \ \



2. Creating and Publishing an Application: Creating an Application in Oracle Visual Builder Cloud Service Using the Visual Applications User Interface



Create a Web Application in Oracle Visual Builder

Before You Begin

[Background](#)

[What Do You Need?](#)



Before You Begin

This 15-minute tutorial shows you how to use Oracle Visual Builder to create a basic web application and populate it with custom business objects.

Comments? Questions? Thank You

Evaluations Please!

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Resources

- Oracle Visual Builder Cloud Service

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

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

- Oracle VBCS community

https://livesql.oracle.com/apex/livesql/file/tutorial_EDVE861IJ168OTUP6ZZ01MX84.html

- VBCS Forum

<https://community.oracle.com/community/database/developer-tools/oracle-jet>

- Shay Shmeltzer Blog
- Oracle JET Cookbook
- JET Theming Guide

<https://docs.oracle.com/en/middleware/jet/4.2.0/develop/theming-applications.html>

Resources

- Oracle JET Forum

https://community.oracle.com/community/groundbreakers/development_tools/oracle-jet

- WebComponents.org

<https://www.webcomponents.org/introduction>

- VBCS Forum

<https://cloudcustomerconnect.oracle.com/resources/e610f4723c/summary...>