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Two Years at Oracle: APEX 21.1 through 23.1

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Principal Member of Technical Staff
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About Jeffrey Kemp

Oracle APEX Application Developer
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- Started at Oracle in 2020
- APEX team in 2021

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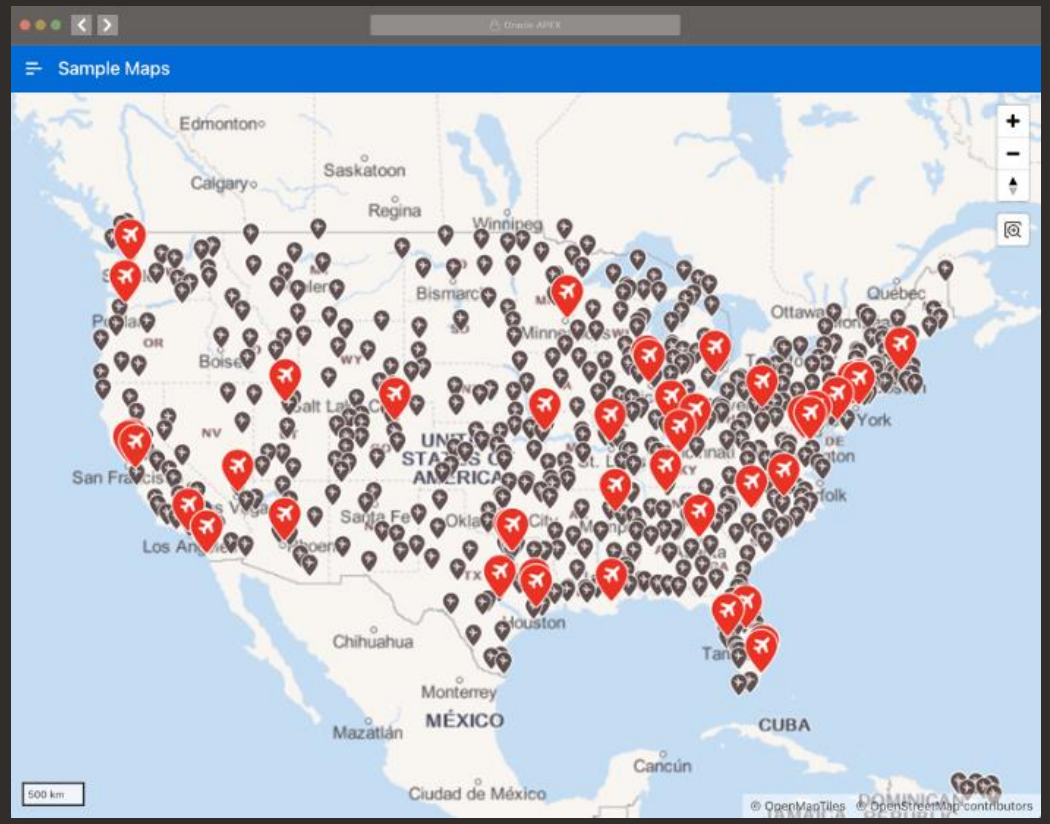
APEX 21.1

- Map region
- New Data Loading process
- Native Markdown support



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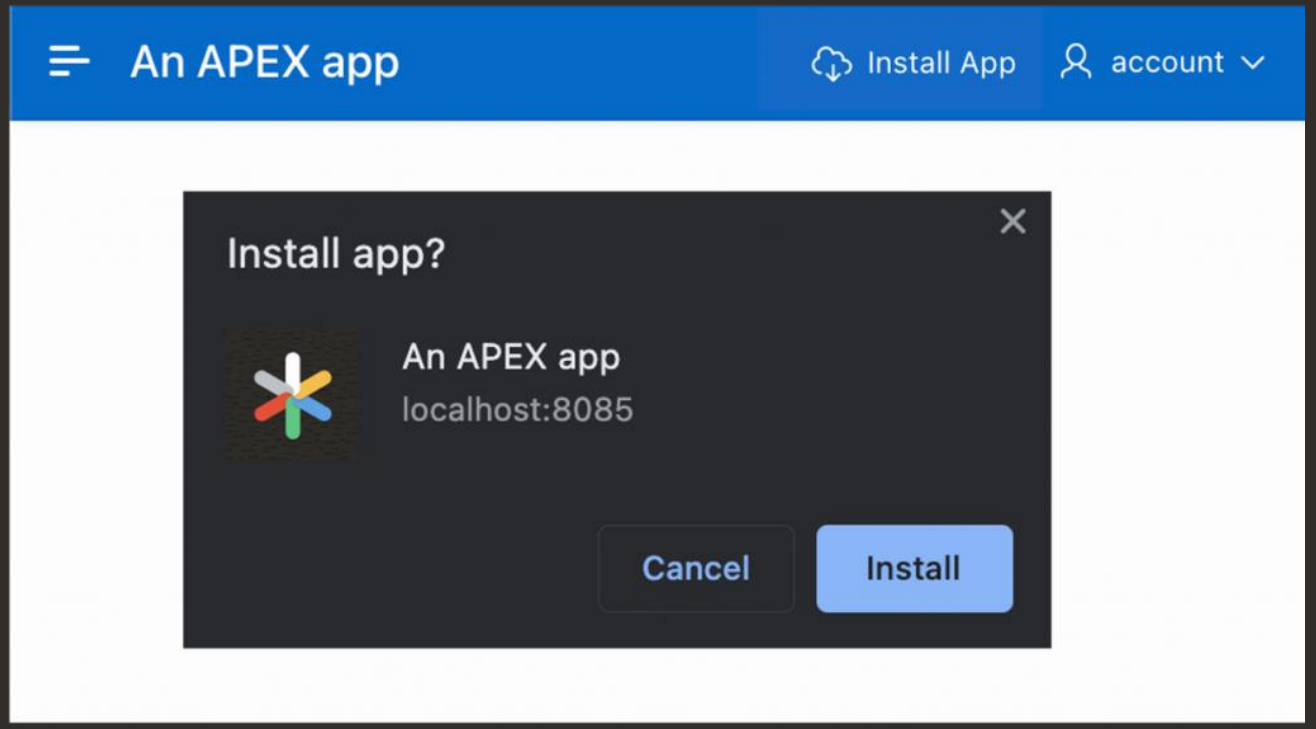
APEX 21.2

- Progressive Web Apps
- Improved Code Editor
- Environment banner
- Send Email page process



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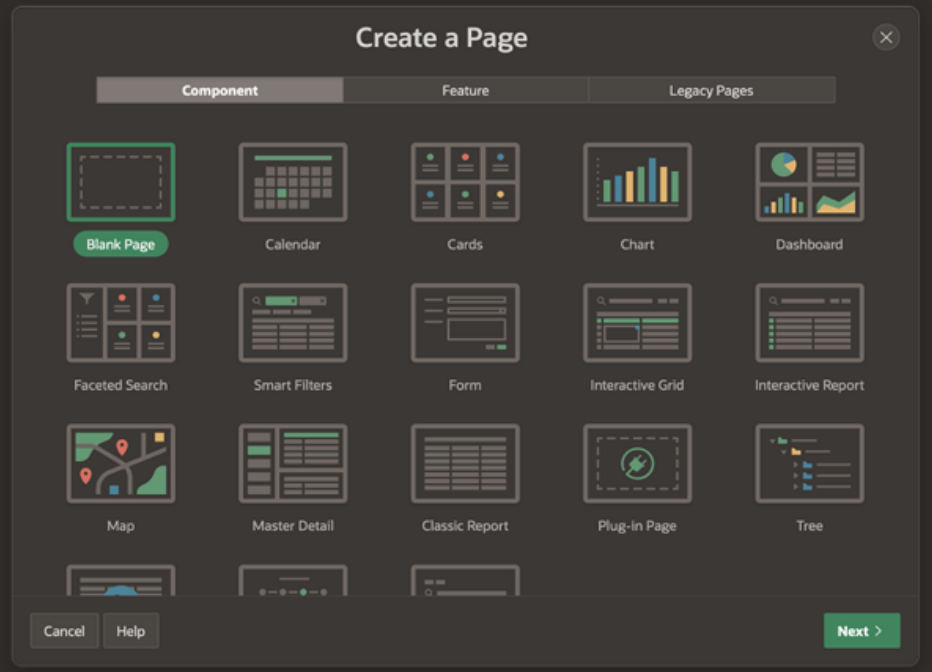
APEX 22.1

- Approvals, Unified Task List
- Improved Create Page wizard
- App Export as YAML or JSON
- Data Generator
- Application Icon editor



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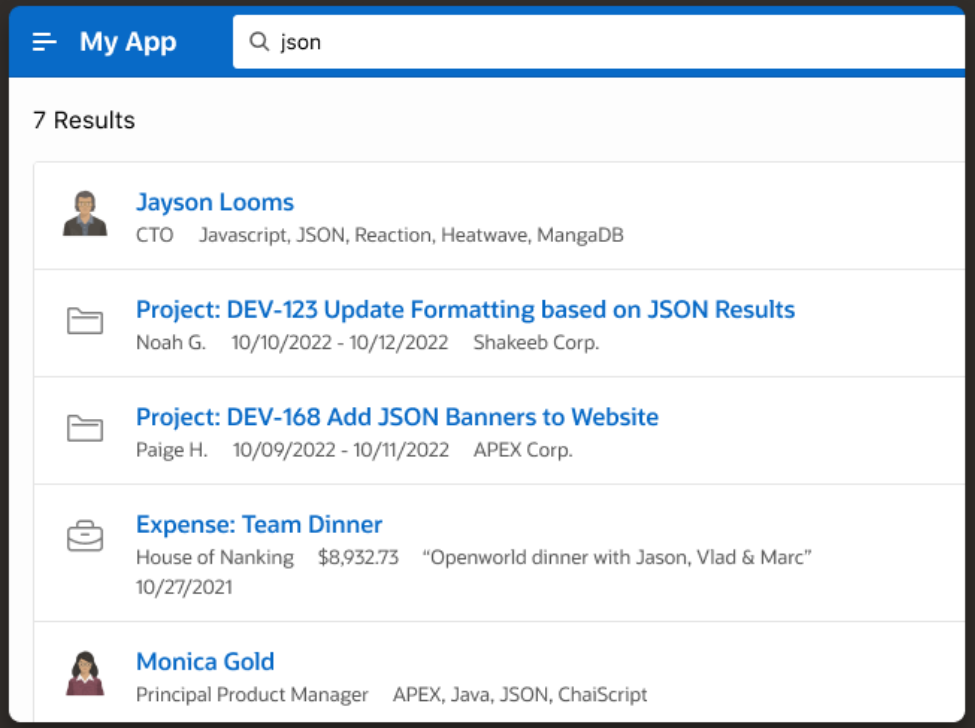
APEX 22.2

- Application Search
- Invoke API Processes
- Dynamic Content Region
- Accessibility – Landmarks
- Declarative Debounce / Throttle for DAs
- CLOB page items
- APEX_ESCAPE improvements for CLOBs



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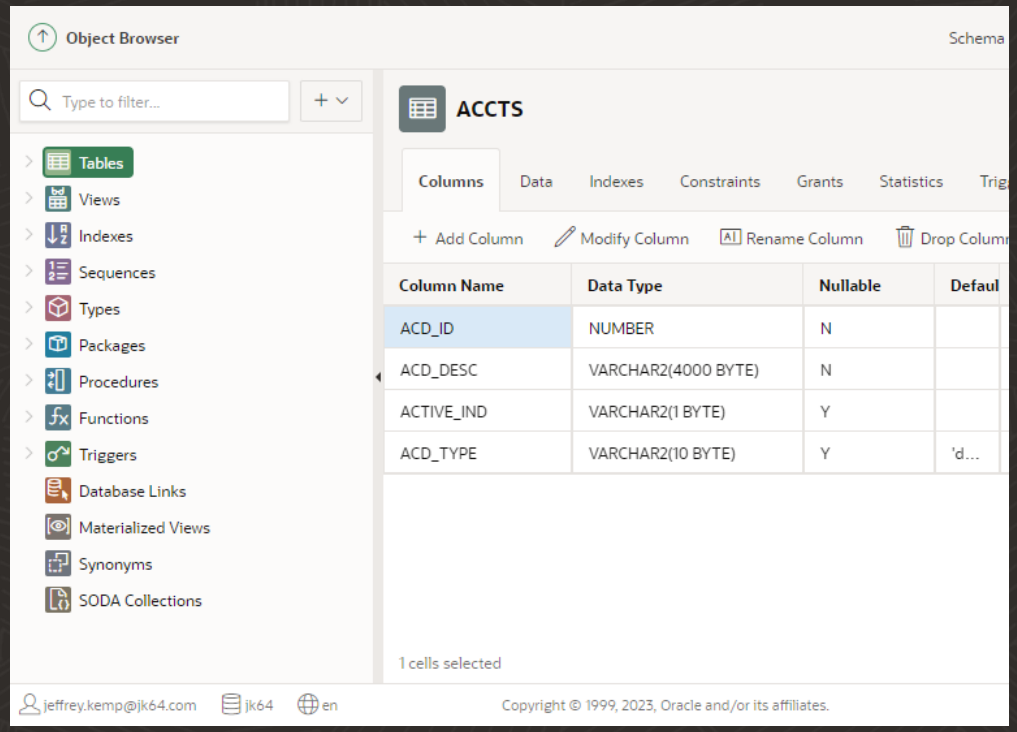
APEX 23.1

- PWA Push Notifications
- New Object Browser
- Run Process in Background
- Template Components
- Region Display Selector improvements
- Session State Changes application attribute
- APEX_APPLICATION_ADMIN



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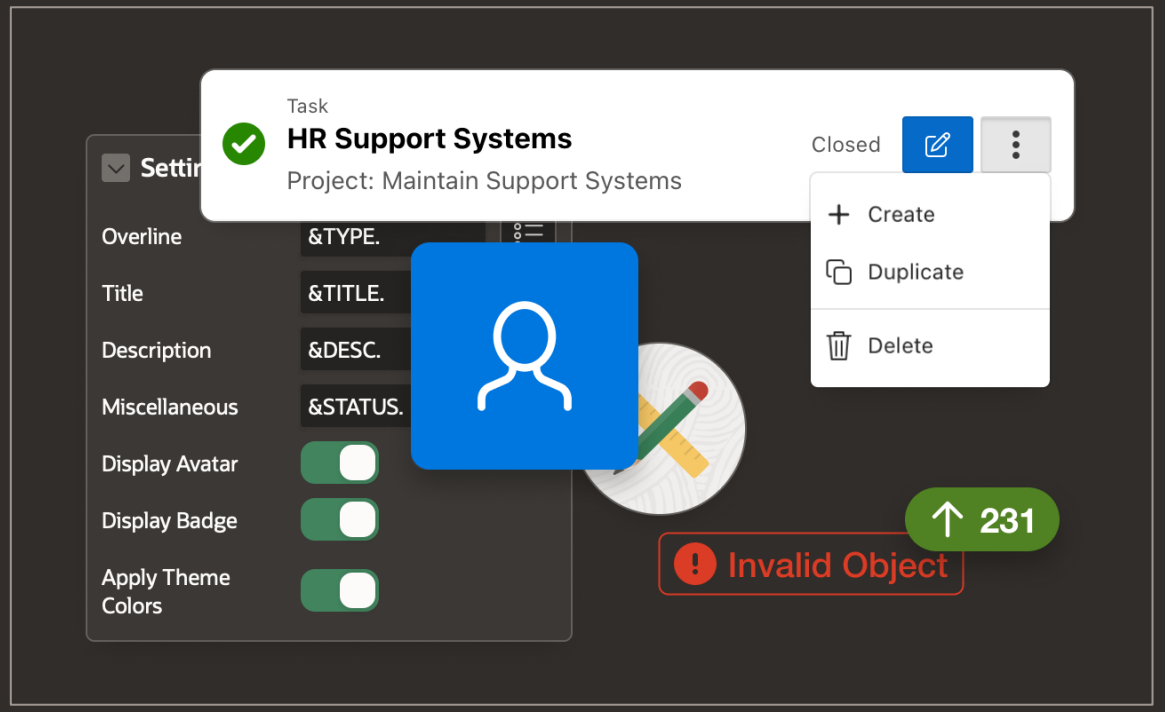
Template Components

- A new plug-in type for building re-usable UI components.
- Support for actions, menus, and custom attributes within Page Designer.
- Rendered as standalone regions displaying one or multiple rows of data; or
- Rendered within reports as partials for a column.



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VERY simple demo: Template Components

From this:

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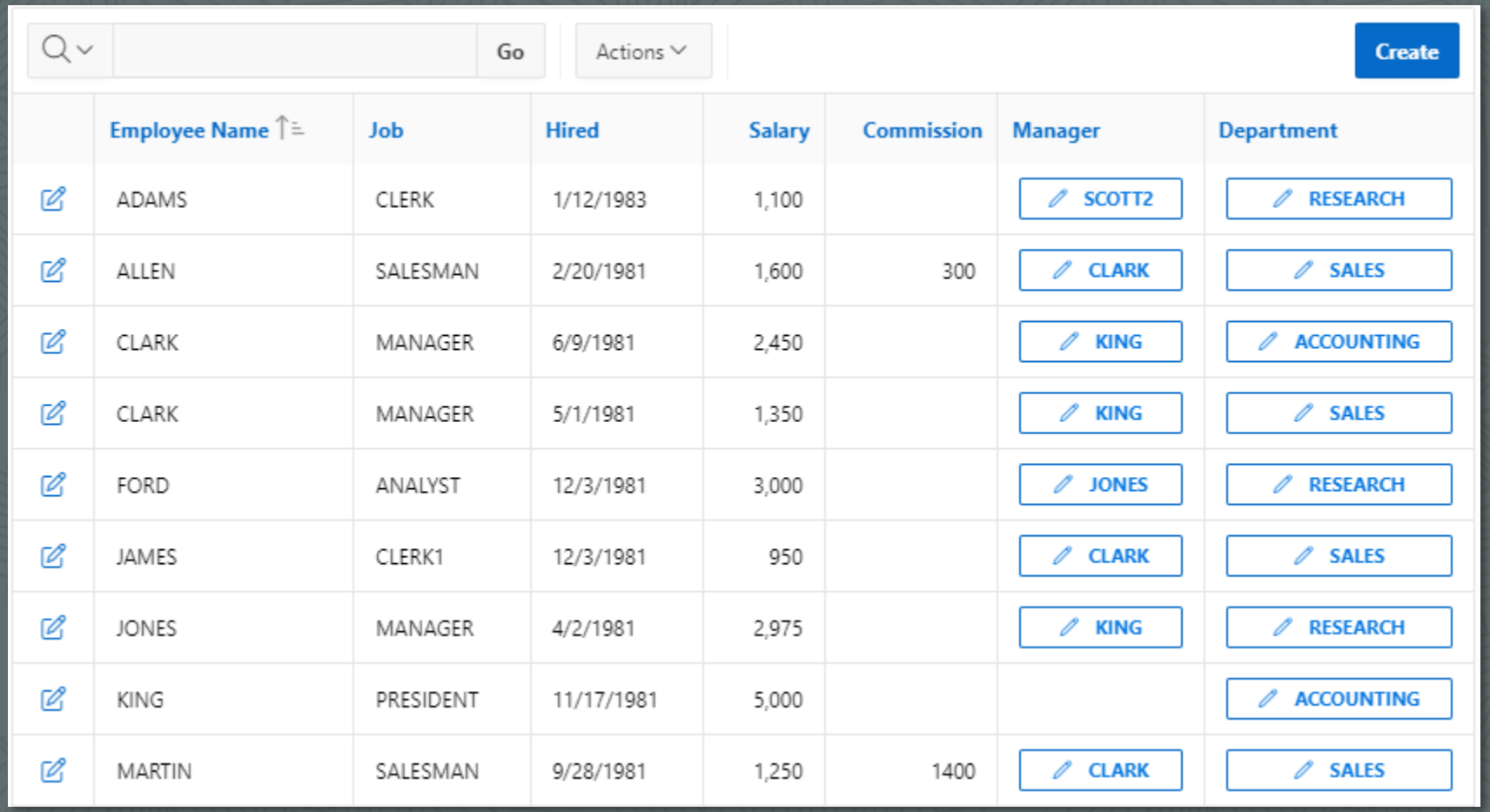
VERY simple demo: Template Components

To this:



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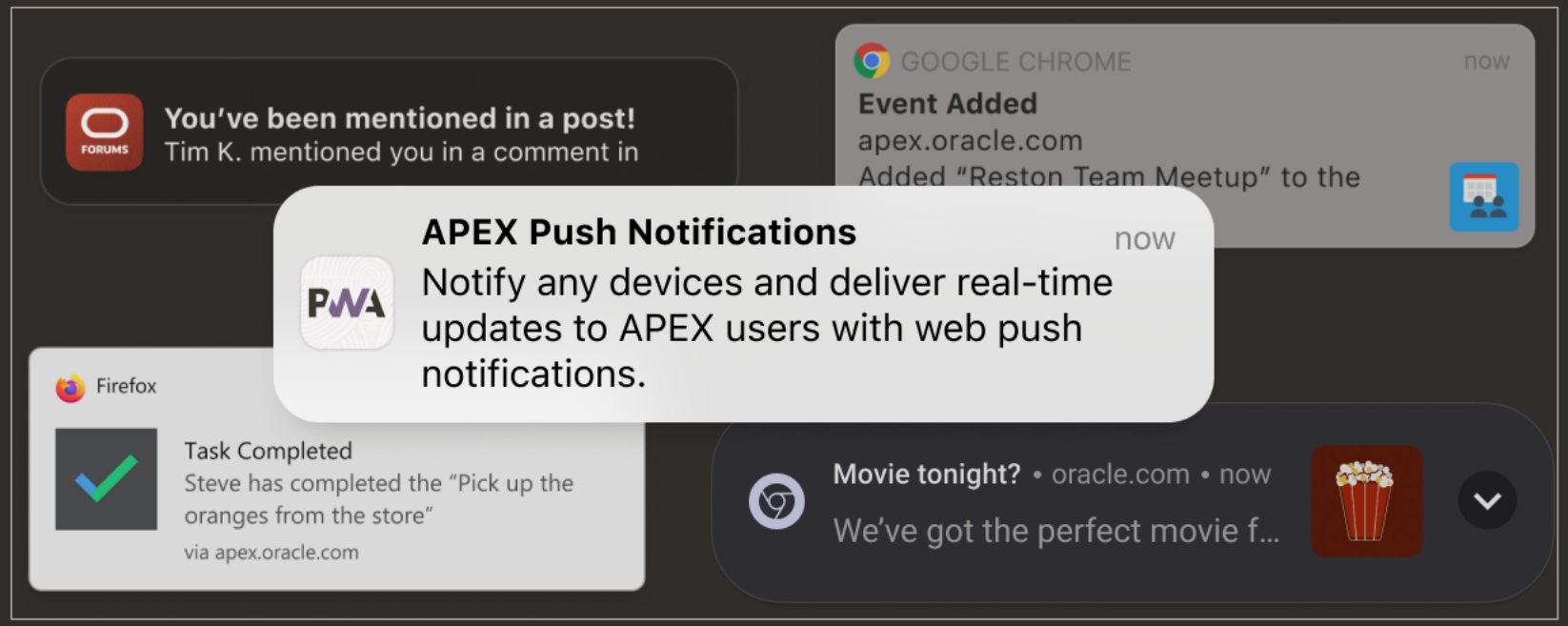
PWA Push Notifications

Notify desktop and mobile users who've opted-in to receive push notifications.



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Developer Experience

Modernized Object Browser

The Object Browser delivers a more accessible and streamlined user experience that makes managing database objects easier than ever before.

Page Processing Improvements

Group a sequence of page processes to offload processing to the background or just simplify maintainability of conditional execution.

REST Data Source Enhancements

REST Data Sources have been updated to provide more control over source discovery and responses.

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Ideas implemented in 23.1

Feature Request Number	Subject	Solution
FR-845 / FR-2455	API to set Version No	Delivered. See New Application Administration API Package.
FR-1576	Advisor report on buttons in invalid region template positions	Delivered. See 33352932 in Fixed Bugs.
FR-1600 / FR-2565	Save and Run from the Code Editor modal screen	Delivered. See Save and Run Page from Code Editor.
FR-1639 / FR-1701	Display Loading Indicator when performing actions in SQL Workshop	Delivered. See Modernized Object Browser.
FR-1740	Visual/Wizard support for ASYNC server-side processes	Delivered. See Page Processing Improvements.
FR-1885	Edit default value of table columns	Delivered. See Modernized Object Browser.
FR-1928	Native push notifications and push events for dynamic actions	Delivered. See PWA Push Notifications.
FR-2005	Identity Column in SQL Workshop	Delivered. See Modernized Object Browser.
FR-2085	Fix objects filter in SQL Workshop - Object Browser	Delivered. See Modernized Object Browser.
FR-2086	Fix: Using SQL Workshop we need to reset query columns to load new ones when column is added to table.	Delivered. See Modernized Object Browser.
FR-2421	Allow me to use real JSON paths in REST Service Row Selector	Delivered. See REST Data Source Enhancements.
FR-2507	Possibility to give comments to the tables and columns during creation	Delivered. See Modernized Object Browser.

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Bugs fixed in 23.1

Bug Number	Description
28685154	PUBLISH THE EXPLANATION ABOUT "JOIN LOV FOR COLUMN DISPLAY" ATTRIBUTE TO MANUAL
30203115	IMPROVE HELP TEXT FOR SWITCH ITEM TO BETTER EXPLAIN WHEN ON/OFF LABEL TEXT IS DISPLAYED
31811949	IGNORE COMBINED FILE WHEN FILE GETS LOADED VIA REQUIREJS OR REQUIREJET
32749605	NLS: LOCALIZATION OF DATE FORMATS REQUIRED FOR CERTAIN PAGES UNDER MONITOR ACTIVITY
33352932	ADD AN ADVISOR ENTRY CHECK FOR LEGACY ORPHAN COMPONENTS
33697490	COPY COMPONENT TO OTHER PAGE DOESN'T CHANGE PAGE ITEM REFERENCES
34131666	FACETED SEARCH - DEPENDING ON HAS UNEXPECTED BEHAVIOUR WHEN CONDITION NOT EQUAL
34146043	CHECKBOXES AND RADIOS IN FACETED SEARCH ARE NO LONGER ACCESSIBLE
34327856	SMART FILTERS - PAGE SUBMITTED WHEN SETTING FILTER ON ENTER
34415818	INTERACTIVE GRID POPUP LOV COLUMN: WHEN A DEFAULT IS SET, NEW ROW IS INITIALIZED WITH RETURN AND NOT WITH DISPLAY VALUE
34418403	DIALOGS OF INTERACTIVE REPORT COLUMN HEADERS MISSING VISUALLY HIDDEN HEADERS FOR SCREEN READERS
34447426	INTERACTIVE GRID - SWITCHING TO SINGLE ROW VIEW MOVES JAWS CURSOR UNEXPECTANTLY
34447594	RECORDVIEW NOT RENDERING PROPER READONLY INPUT FIELDS WHEN IN READ-ONLY MODE
34458064	MULTIPLE EXPORTS IN A SINGLE SESSION MAY RESULT IN CORRUPTED EXPORT FILE
34473422	PAGE DESIGNER: MULTIPLE ATTRIBUTE VALUES NOT ALWAYS INDICATED AFTER SELECTING MULTIPLE ITEMS
34481324	SINGLE CHECKBOXES HAVE UNLABELED INACCESSIBLE OBJECTS IN VIRTUAL PC MODE OF JAWS
34600714	COLLAPSIBLE REGION CONTENT FLICKERS ON PAGE LOAD
34608372	HELP TEXTS FOR TEXT WITH AUTOCOMPLETE ATTRIBUTES CACHE AND SEARCH ARE INCORRECT
34609210	TEXT WITH AUTOCOMPLETE DROPDOWN CONTENT IS NOT SCROLLED TO TOP
34616851	APEX_STRING_UTIL.FIND_TAGS MISSING SUCCESSIVE TAGS
34624879	CREATING DATA LOAD DEFINITION IN MULTIBYTE NAME RAISES WWV_FLOW_LOAD_TAB_UK ERROR
34628417	XLSX EXPORT: NO SUBSTITUTIONS APPLIED FOR PAGE HEADER

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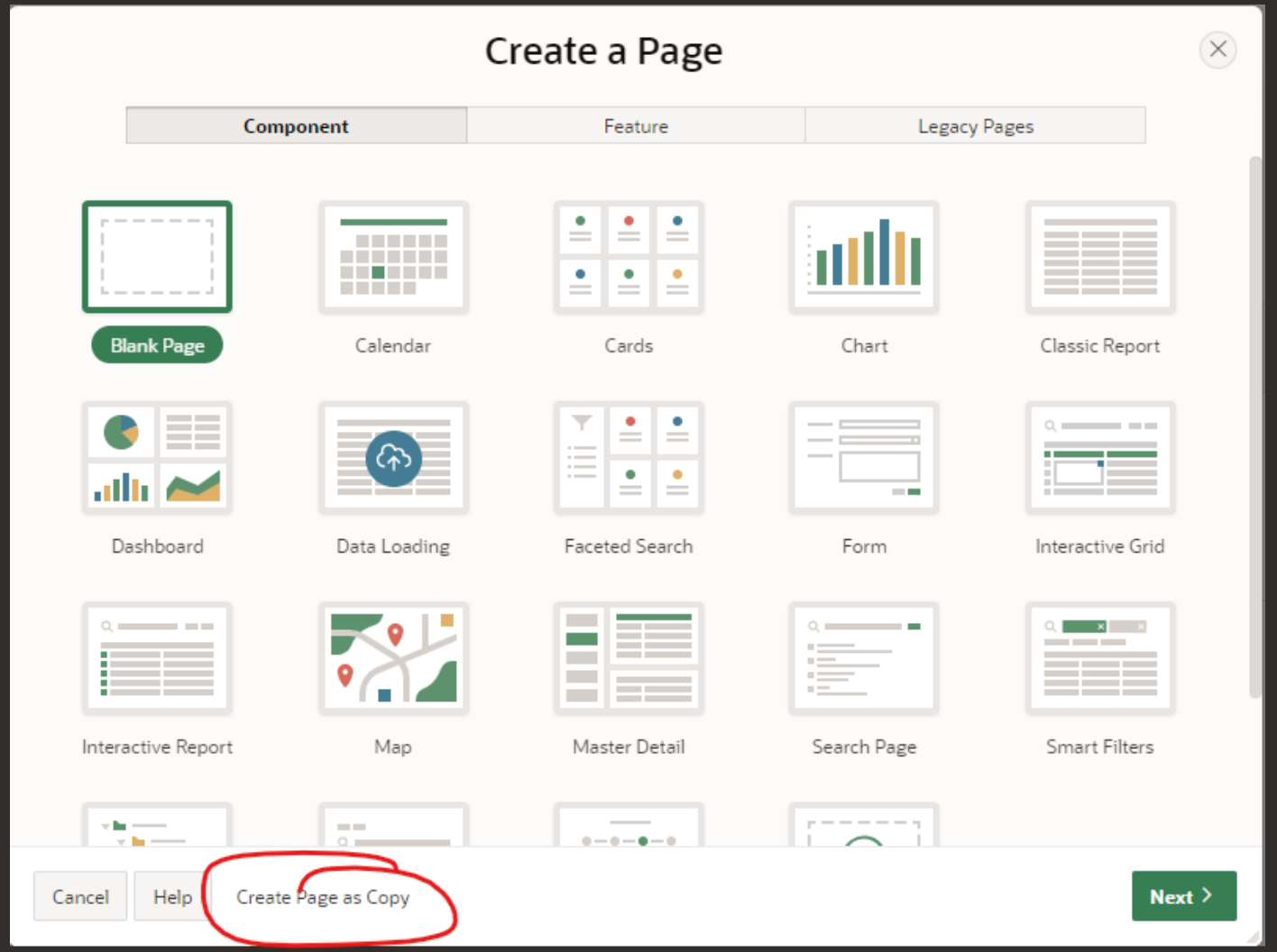
Create Page as Copy



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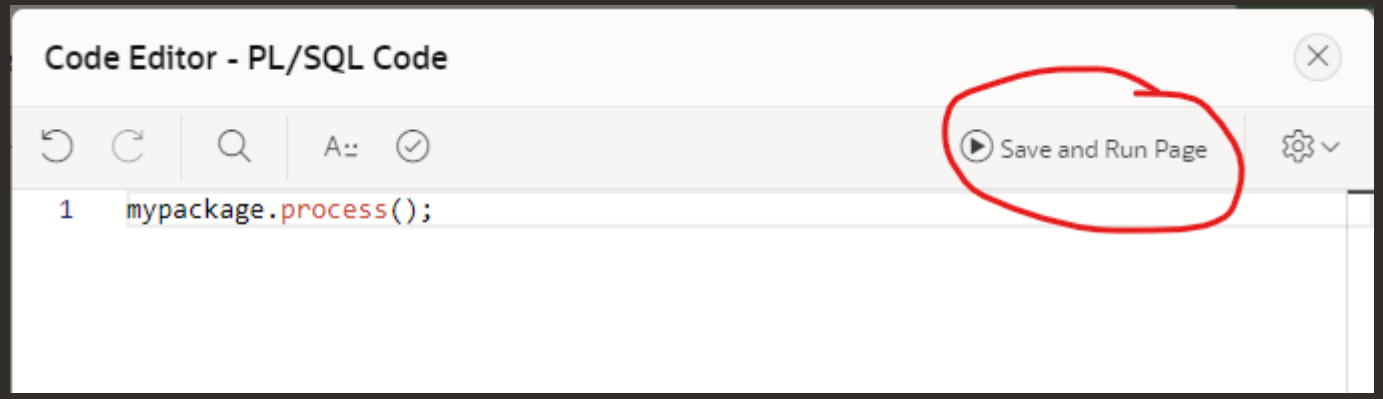
Save and Run from Code Editor



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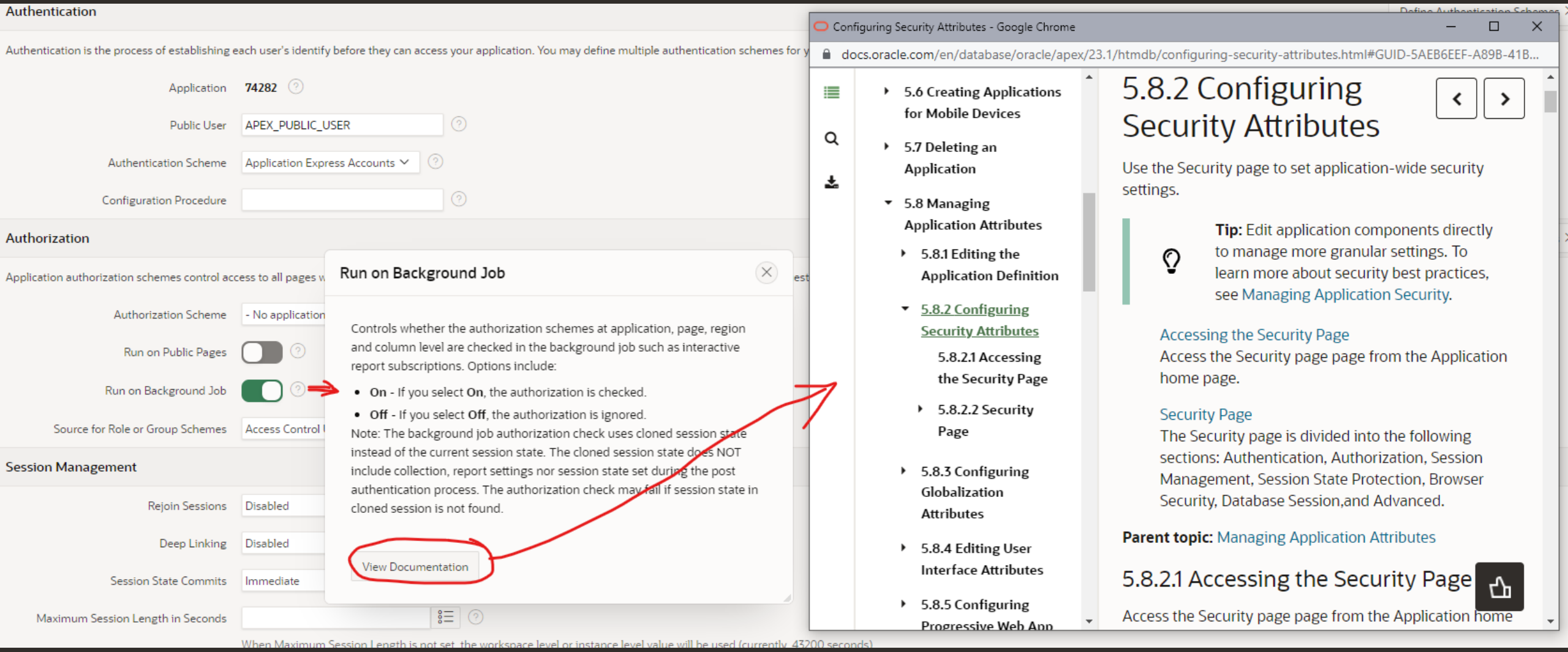
Context Sensitive Help



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General Builder Improvements

Plug-In Attributes Updates

The item plug-in infrastructure has been extended to support 25 attributes, up from 15. Define and assign Groups for custom attributes to group similar plug-in attributes together.

Property Graph Support

Native support for Property Graphs in database 23c. Build APEX Page Components directly on a Property Graph using PQL queries. Build shared LOVs, Automations and Search Configurations directly on Property Graphs using PQL.

SQL Developer Web Integration

Open SQL Developer Web directly from the SQL Workshop menu in the menu bar. Supported on ORDS version 23.1 (must be configured at the instance level). For workspaces with a single associated REST-enabled DB schema, SQL Developer Web opens in a separate tab. Otherwise, you will be prompted with a list of the schemas to either connect or REST-enable.

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General Builder Improvements

Application Continuity

A new app security attribute, Session State Commit, has been added. This controls how changes to session and item values plus accompanying commits are handled.

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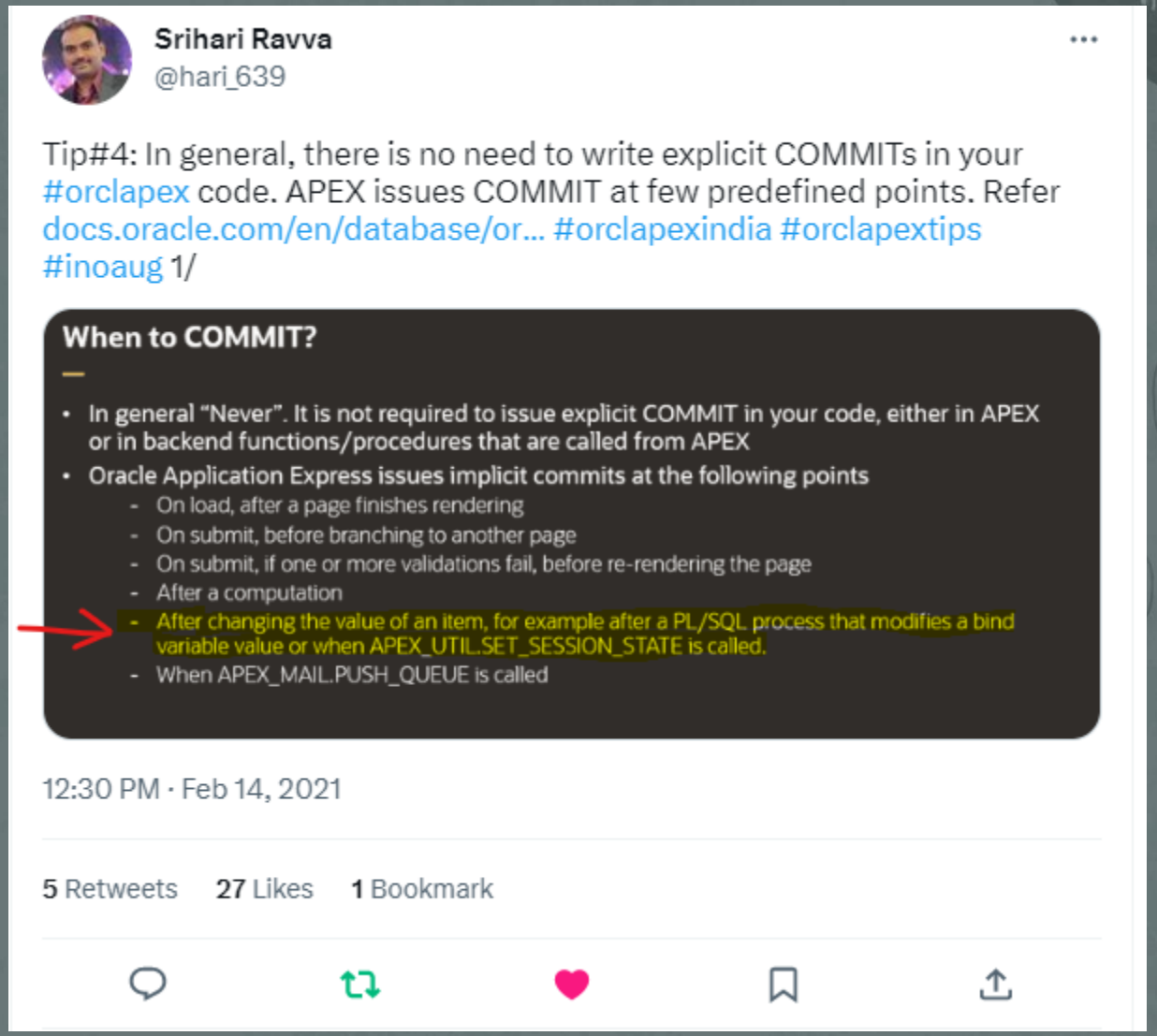
back in 2021...



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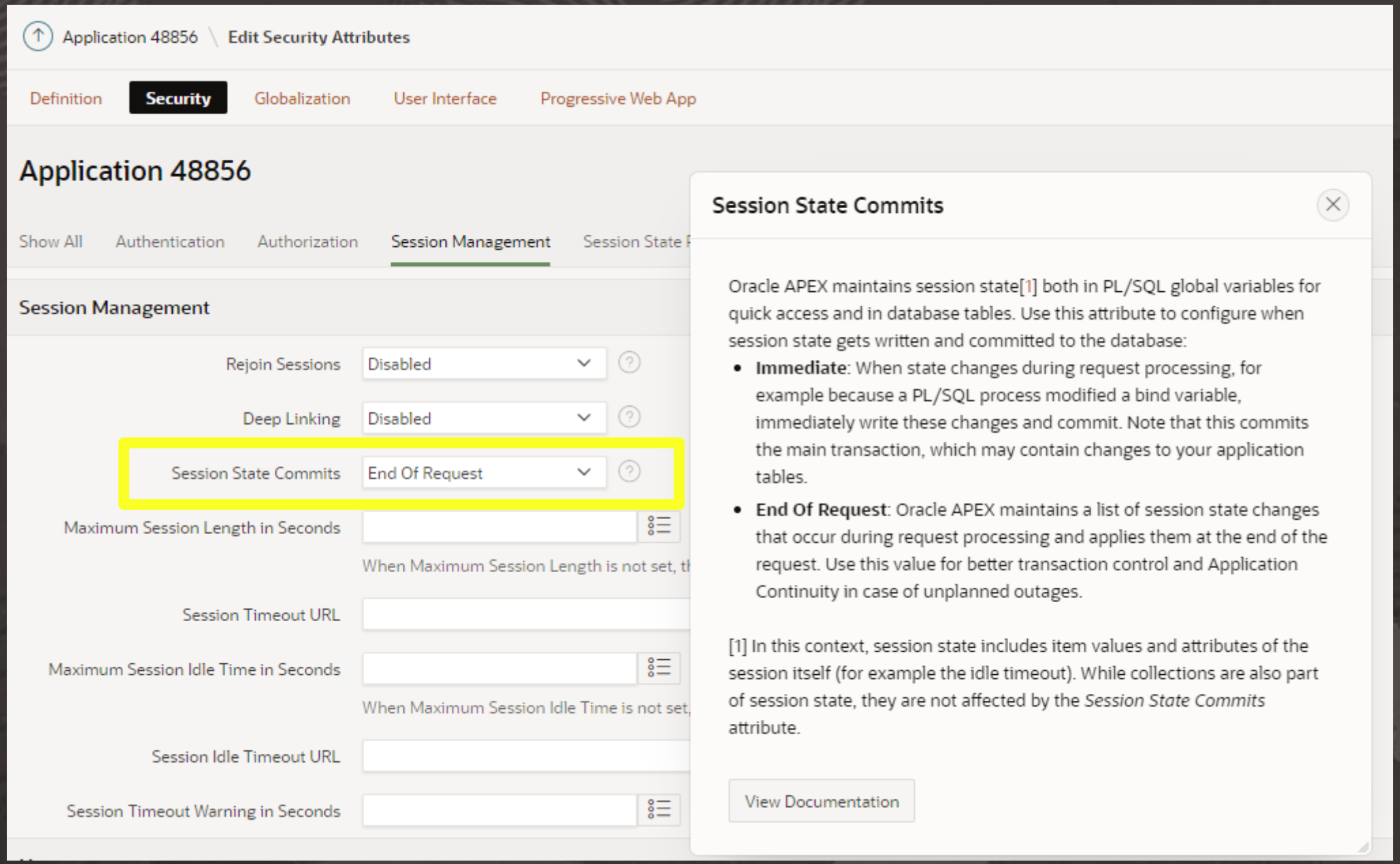

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Improvements to APEX Administration

Admin Digest

Monitor the health of your Instances, Workspaces, and Schemas with daily metrics and trend charts, made available daily in the new APEX Administrator Digest. View top Workspaces, Apps, and Users, investigate Workspace details, and monitor everything through a single Dashboard.

Auto Provisioning Restrictions

Managing the creation of workspaces in an instance just got easier with a new UI and API that allows you to define and manage a block list of email patterns. Query a block list when auto-provisioning a workspace to restrict email addresses that match the pattern on the block list.

New APEX_APPLICATION_ADMIN API

Allows developers to programmatically modify some application attributes in a workspace.

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```
apex_application_admin.set_application_name(:application_id, :new_name);

apex_application_admin.set_application_alias(:application_id, :new_alias);

apex_application_admin.set_application_version(:application_id, :new_version);

apex_application_admin.set_authentication_scheme(:application_id, :new_auth_scheme);

apex_application_admin.set_global_notification(:application_id, :new_notification);

apex_application_admin.set_parsing_schema(:application_id, :new_schema);
```

... and more

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Universal Theme and UX Improvements

- Universal Theme has been updated with new built-in Template Components, an enhanced Region Display Selector, improved page rendering performance, and more.
- Application icons generated for PWAs have been updated to apply the appropriate masking so it looks appropriate on more platforms and devices.
- Easily download and upload themes directly from the Theme Roller interface from the new Actions menu button.
- Updates to the Hero and Title Bar templates provide a new Up button position. The Standard and Report region templates have also been updated to include a new Alignment Template Option, allowing for additional control over the alignment of Order By items.

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Approvals Component Enhancements

The Approvals component now supports due dates for creating approval tasks.

Due Date Item

The Due Date item is now available as a property for the Human Task - Create process plugin. When specified, this value will override the due date settings for the underlying task definition.

Updated Create Task API

The APEX_APPROVAL.CREATE_TASK API now includes a due date parameter. When specified, this value will override the due date settings for the underlying task definition.

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Additional Updates and Enhancements

New Colour Picker

The old JET colour picker has been replaced in the APEX Theme Roller, Page Designer, and IR/IG Highlights with a new web component based colour picker. This colour picker can be created dynamically and has the same settings as the old colour picker with a JET colour compatible object.

REST-Enabled Objects

REST-enabling functionality for database objects has been moved from the Object Browser to APEX RESTful Services.

Accessibility Improvements

Plain text attributes have been updated to properly escape HTML and ARIA attributes and prevent HTML markup from being exposed to screen readers.

JavaScript Library Upgrades

We've updated several JavaScript libraries to newer releases

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Learn More…

What's New in Oracle APEX 23.1?
https://apex.oracle.com/en/platform/features/whats-new-231/

Oracle APEX 23.1 New Features Videos
https://apex.oracle.com/go/Playlist-231

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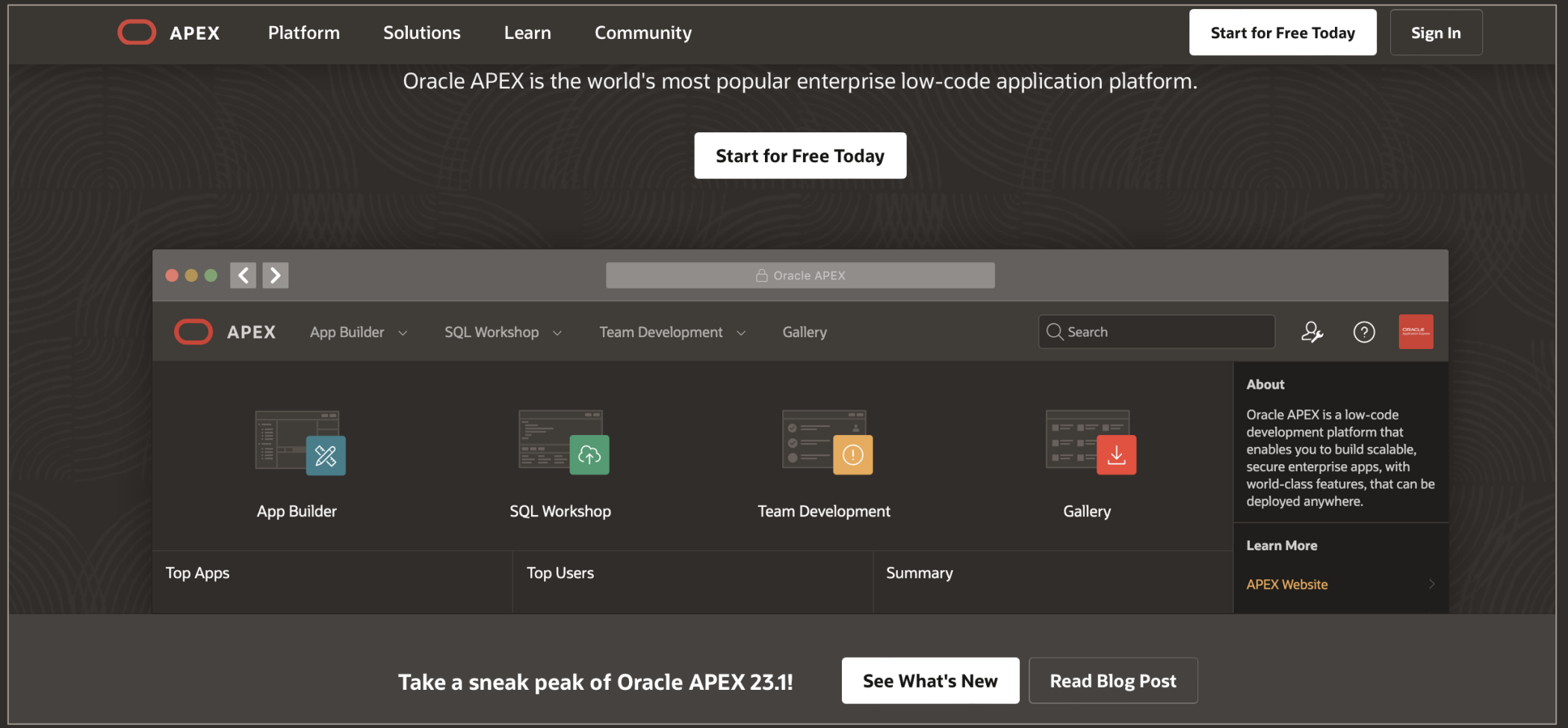
Take a Sneak Peek of Oracle APEX 23.1!



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Thank you

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APEX

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