

21.03.2025

# APEX Search & Oracle Text

## No AI needed?

code of change



GOD III

# Two become Hyand Ranked among the top 15 IT service providers in Germany



Kaunas

Vilnius

Pune

> 900  
Employees  
(of which 160 in  
shoring locations)

> 150  
Clients

> 10  
Industries

16  
Locations



## 400+ technical experts helping peers globally

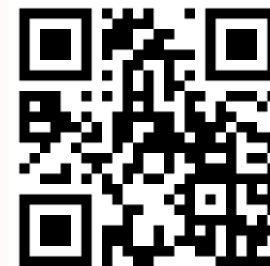
The **Oracle ACE Program** recognizes and rewards community members for their technical and community contributions to the Oracle community



### 3 membership tiers



For more details on Oracle ACE Program:  
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### Nominate

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# What is Oracle Text?

Let's start with a little quiz.

# Oracle Text is Enterprise Edition only

False

# Oracle Text was introduced in Oracle 8

True

# Oracle Text can index Word Documents

True

# Oracle Text can analyse Images

False

# Oracle Text can analyse Images

False

# Have you used Oracle Text before?

# Oracle Text Overview

# Oracle Text

- Provides Full-Text Search Capabilities
- Available in all Database Editions
- Make available for a schema by granting CTXAPP privilege.

```
grant ctxapp to my_schema
```

# Oracle Text Index Types

- **CONTEXT**
  - Index large coherent text documents
- **SEARCH INDEX**
  - Similar to above, also supports sharded database
- **CTXCAT**
  - Mixed queries with smaller text documents and additional columns
- **CTXRULE**
  - Document classification or routing

# Oracle Text and TDE

- Supported for tables in TDE enable tablespaces
- Not supported for TDE-enabled columns
  - Oracle Text is a domain index

# Indexing Flow

- Read from Datastore object
- Run through Filter object
- Run through Sectioner object
- Run through Lexer object
- Run through Indexing Engine

Let's take it for a spin

## Oracle Text Preference

```
1  PROMPT Oracle Text Datastore Setting
2  begin
3      -- Create your own preference
4      -- USER_DATASTORE means using a custom PL/SQL procedure for input
5      ctx_ddl.create_preference(
6          preference_name => 'pdb_global_datastore', object_name => 'USER_DATASTORE'
7      );
8
9      -- Tell the preference which procedure to use
10     ctx_ddl.set_attribute(
11         preference_name => 'pdb_global_datastore'
12         , attribute_name => 'procedure', attribute_value => 'PDB_GLOBALE_SUCHE_PKG.PR_INDEX_FEEDER'
13     );
14
15     -- Tell the preference to use a CLOB for the output
16     ctx_ddl.set_attribute
17     ( preference_name => 'pdb_global_datastore'
18       , attribute_name => 'output_type', attribute_value => 'CLOB_LOC'
19     );
20 end;
21 /
```

## Text Index Creation

```
1  PROMPT Text Index on dummy column with custom Datastore
2  -- Use previously defined datastore
3  -- No filtering applied
4  -- Let Oracle Text to automatic sectioning (works because the procedure supplies XML)
5  create index my_text_ix on my_table ( dummy_col )
6      indextype is ctxsys.context
7      parameters ('datastore pdb_global_datastore
8                  filter ctxsys.null_filter
9                  section group ctxsys.auto_section_group'
10                 )
11 ;
12
```

# Vector Search

Quick Demo

# General thoughts & Closing

## Things to look out for

- Performance impacts
- Modifying your PL/SQL data feeder

## Oracle Text

- Available since Oracle 8
- Exact matches mostly
- Allows fuzzy operators
- Does not hallucinate

## Vector Search

- Needs Oracle 23ai
- Less exact
- Will always answer
- Might hallucinate

## Further Improvements / Thoughts

- Use Oracle Text, but generate the search term using an LLM
- Prefilter using Oracle Text, then hand over to Vector Search
- Let's discuss



APEX Search & Oracle Text - No AI needed?-Moritz Klein

244

Please fill in your  
evaluations

# LCT – Low Code Testing



- Write test that are stable and easy to maintain – **no coding required**
- Comprehensive reporting
- Schedule tests for repeat execution
- Easy selector handling

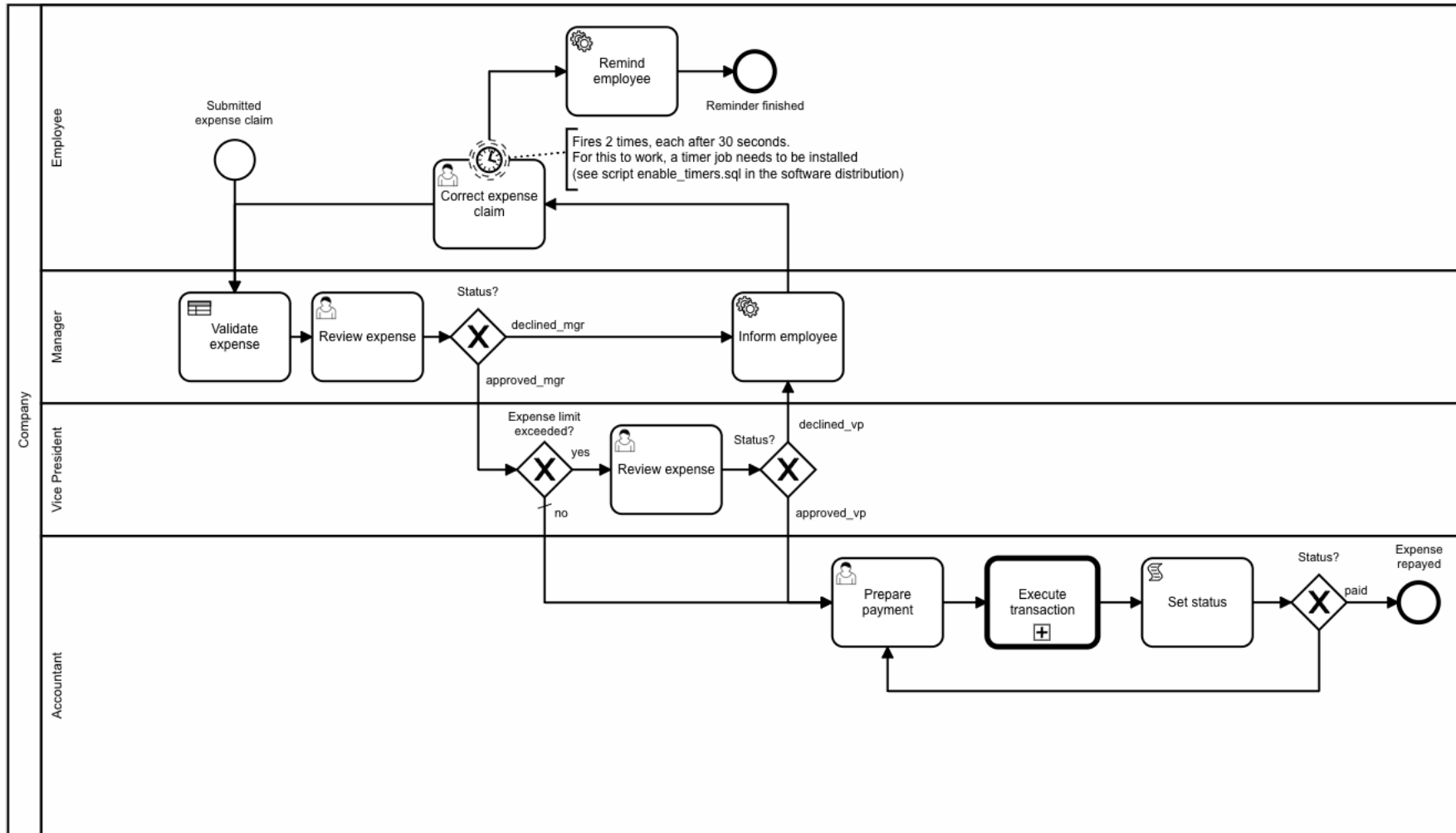
The screenshot displays the LCT - Low Code Testing interface. The top navigation bar includes 'Worksheets', 'Queue', 'Import/Export', 'Test Suites', and 'Administration'. The main area shows a 'Demo Worksheet' with a 'Case Name' of 'Add Customer' and a 'Sort Order' of 10. Below this, a table lists 18 steps for the test case, including actions like 'Go to page 2', 'Perform click on Create Customer', 'Switch to frame context', 'Perform fillField on First Name', 'Perform fillField on Last Name', 'Perform selectOption on State', 'Perform fillField on Zip Code', 'Perform fillField on Credit Limit', 'Perform click on Add Customer', 'Check for errors on the current page', 'Switch back to parent page context', 'wait 2 secs', 'Search for newly added customer', and 'Take screenshot'. Each step has a checkbox for 'Enabled' and an 'Edit' button.

The screenshot displays the LCT - Low Code Testing interface, specifically the 'Queue' view. It shows a table of test executions with columns for 'Actions', 'Execution Name', 'Version', 'Execution Point...', 'Status..', 'Successful/Total Cases..', 'Output Log', 'Created By', and 'Created On'. The table lists several test runs, some of which are marked as failed (red status). On the right side, a 'LiveLog - Queue ID: 17' is visible, showing a detailed error log for a failed test. The error log includes the following text:

```
129 [x] After Hooks (73 ms)
130 [x] Fixture: browser (26 ms)
131 [x] Worker Cleanup (27 ms)
132 > Finished Case "Add Order" (6589 ms | Status X ("failed"))
133
134 Case error log:
135 Error: Timed out 5000ms waiting for
136 expect(locator).toHaveText(expected)
137
138 Locator: locator('i-heroRegion-title')
139 - Expected - 3
140 + Received + 1
141
142 - Array [
143   - "Sample Database Application",
144   - ]
145 + Array [
146   + expect.toHaveText with timeout 5000ms
147   + waiting for locator('i-heroRegion-title')
148   + locator resolved to 0 elements
149   + locator resolved to 0 elements
150   + locator resolved to 0 elements
151   + locator resolved to 0 elements
152   + locator resolved to 0 elements
153   + locator resolved to 0 elements
154   + locator resolved to 0 elements
155   + locator resolved to 0 elements
156   + locator resolved to 0 elements
157   + locator resolved to 0 elements
158
159
160 Finished Worksheet execution | Status X ("failed")
161 Info Visit https://pamprg.com/en/docs/cli/run for documentation about
162 this command.
163
```

# Flows for APEX

## BPMN 2.0 Workflows for APEX



- Open Source
- Community Driven
- Support available



Say Hy\_

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