

Widget Ltd Coding Challenge

James Sanna

James55sanna@gmail.com

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About

The following documents outlines the build and run instructions for the files used in the Widget coding challenge. The files have been designed to be executed via SQL*Plus, but it should also be fine to use an IDE (SQL Developer, TOAD etc.).

Database version: 18.0.0

Build Instructions

Fast Build

The following script can be run to automatically create all database objects. This will not consider the optional User step.

File Name: widgetbuildall.sql

Manual Build

The following steps can be followed to manually create all database objects one at a time. They should be executed In the order of writing below.

User Setup (Optional)

The following script can be run to create a separate widget user/schema. This step is optional, and all other files can still be executed in a pre-existing schema.

File Name: usersetup.sql

1. Connect to SQLPLUS as SYSDBA
2. Run usersetup.sql
3. Once the user has been created, log out of SYS and back in with the following:
Username: widget
Password: widget

Tables

The following scripts can be run to create the necessary database tables and data:

File Name: createtableemployees.sql

File Name: insertintoemployees.sql

File Name: createtabledepartments.sql

File Name: insertintodepartments.sql

Packages

The following scripts can be run to create the necessary database packages:

File Name: CreatePackageWidgetToolsPkg.sql

File Name: CreatePackageBodyWidgetToolsPkg.sql

Run Instructions

Assumptions

It is assumed the user running these scripts will have knowledge of employee and department ID's.

Create Employee

File Name: createemployee.sql

Adjust Employee Salary

File Name: adjustsalary.sql

Transfer Employee

File Name: transferemployee.sql

Get Employee Salary

File Name: getemployeesal.sql

Employees for a Department Report

The following script will output a CSV file saved to the same location the script

File Name: departmentemps.sql

Total Salary of Department Report

The following script will output a CSV file saved to the same location the script

File Name: departmentsal.sql

Apex Dashboard

The following web-based application has been created In Oracle Application Express (APEX) as an alternative to the above reports. It provides a simple interactive dashboard to display the total employee salary for that department, as well as a list of the employees for that department.

Note that this application will use a different database to that used for running the build/run scripts above, so any changes to the data made will not be reflected here.

URL: https://apex.oracle.com/pls/apex/js_sandpit/r/widget-ltd

Username: LDMS

Password: LDMS1234