Business School
UNIVERSITY OF COLORADO DENVER

Information Systems Program

Module 2
Introduction to Databases and DBMSs

Lesson 4: Non-Procedural Access

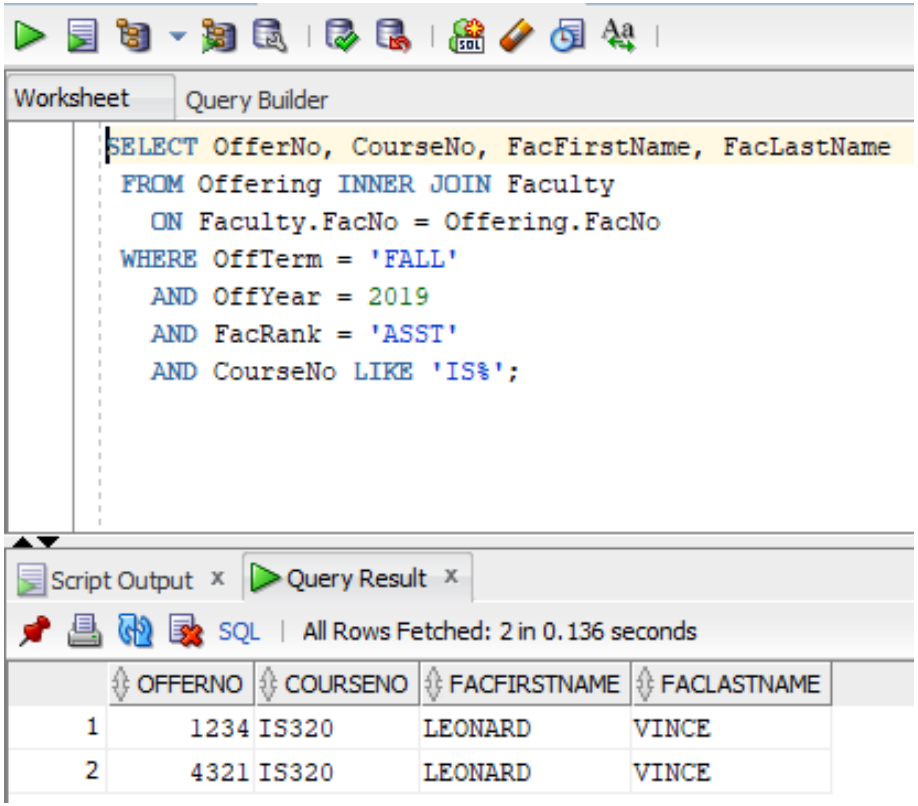
Lesson Objectives

- Discuss importance of non-procedural access
- Explain features commonly found in client tools for database retrieval
- List reasons for using a database programming language

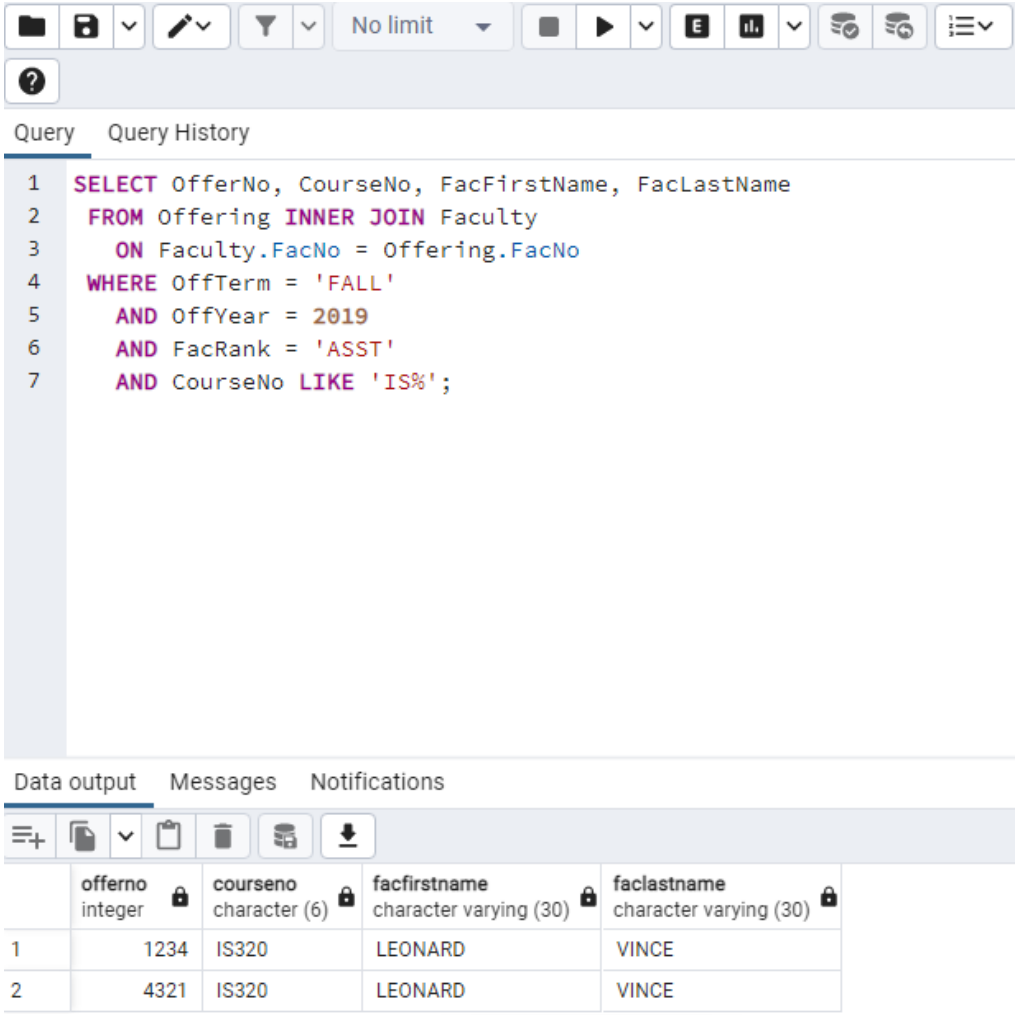
Non-procedural Database Access

- Query: request for data to answer a question
- Indicate what parts of database to retrieve not the procedural details
- Improve productivity and accessibility
- SQL SELECT statement and graphical tools

Worksheet Tool in SQL Developer



Query Tool in pgAdmin



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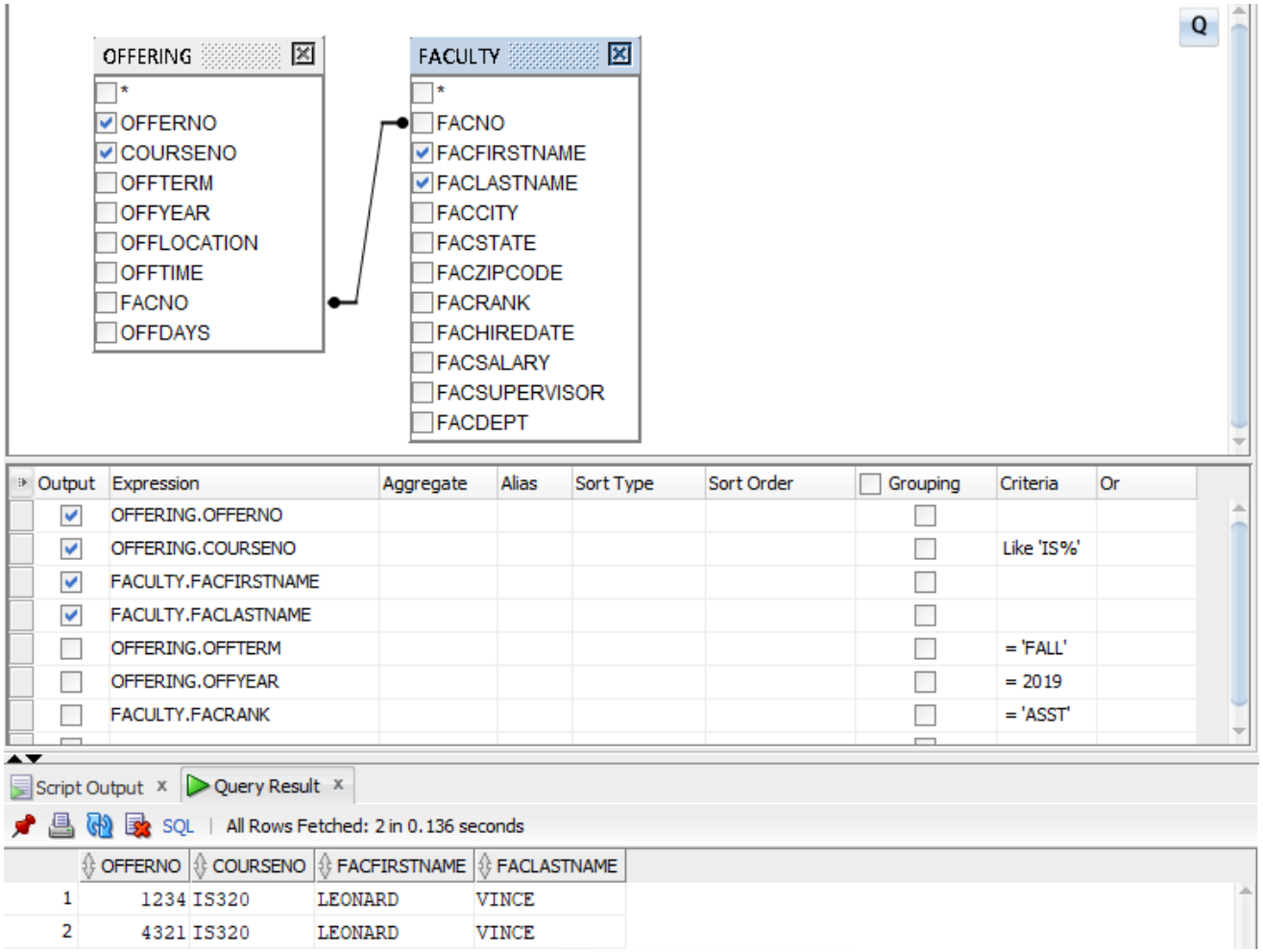
Query Builder Tool in SQL Developer



Database Programming Languages

- Combine procedural language with non-procedural access
- Why
  - Batch processing especially big data tasks
  - Customization especially for ecommerce and automation
  - Modularization

Summary

- Database technology vital to modern organizations
- Non-procedural access as crucial DBMS feature
- Database retrieval using SQL and database client tool
- Database programming languages for big data tasks and customization of applications
- Query formulation as a fundamental skill for information technology professionals