



Business School
UNIVERSITY OF COLORADO DENVER

Information Systems Program

Module 2

Introduction to Databases and DBMSs

Lesson 7: DBMS Technology Evolution

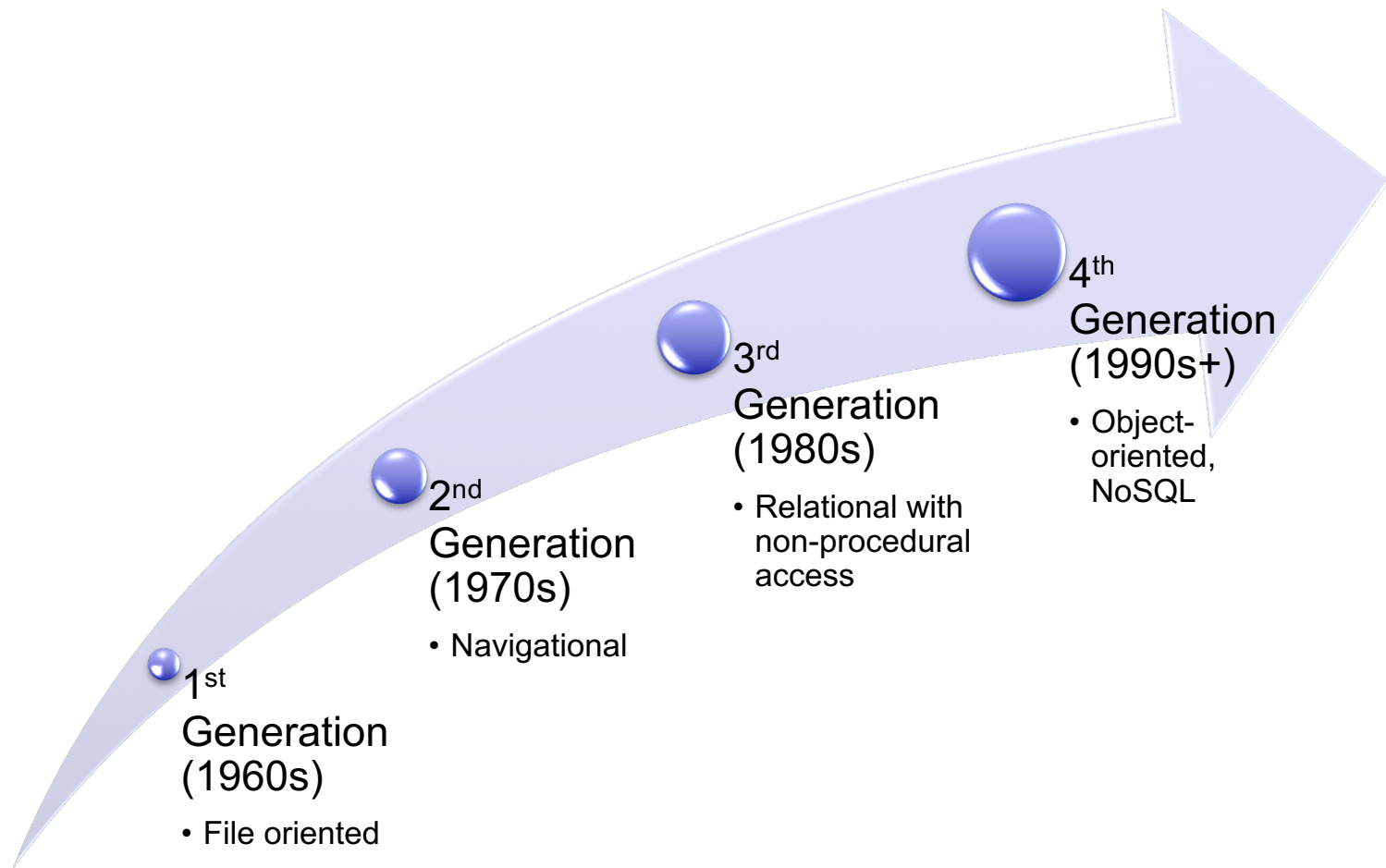


Lesson Objectives

- Appreciate the advances in database technology and the contribution of database technology to modern society
- List the major periods of database technology evolution and one advancement in each period

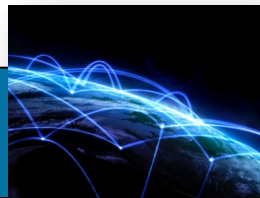


DBMS Product Generations



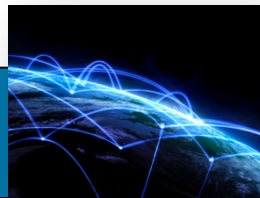
Recent Database Technology Developments

- Business intelligence processing
 - Data integration
 - Storage/retrieval of summary data
- Cloud computing
 - No fixed costs of ownership
 - Data and software
- Optimization for big data demands
 - Demands from smart phones, automotive technology, RFID tags, digitized media
 - NoSQL: simplified models for high performance



DBMS Marketplace

- Enterprise DBMS
 - Oracle: dominates in Unix; strong in Windows
 - SQL Server: strong in Windows
 - DB2: strong in MVS and VM environments
 - Teradata: usage as a data warehouse platform
 - Amazon Web Services
 - SAP Sybase: possible challenge to Oracle
 - Significant open source DBMSs: MySQL, PostgreSQL, MongoDB, MariaDB, SQLite, Cassandra
 - Cloud-based and NoSQL: rapidly evolving
- Desktop DBMS
 - Access: dominates
 - LibreOffice Base, Open Office Base, FileMaker Pro



Summary

- Databases and database technology vital to modern organizations
- Remarkable product evolution
- Competitive industry with lots of continuing innovation

