Business School
UNIVERSITY OF COLORADO **DENVER**

Information Systems Program

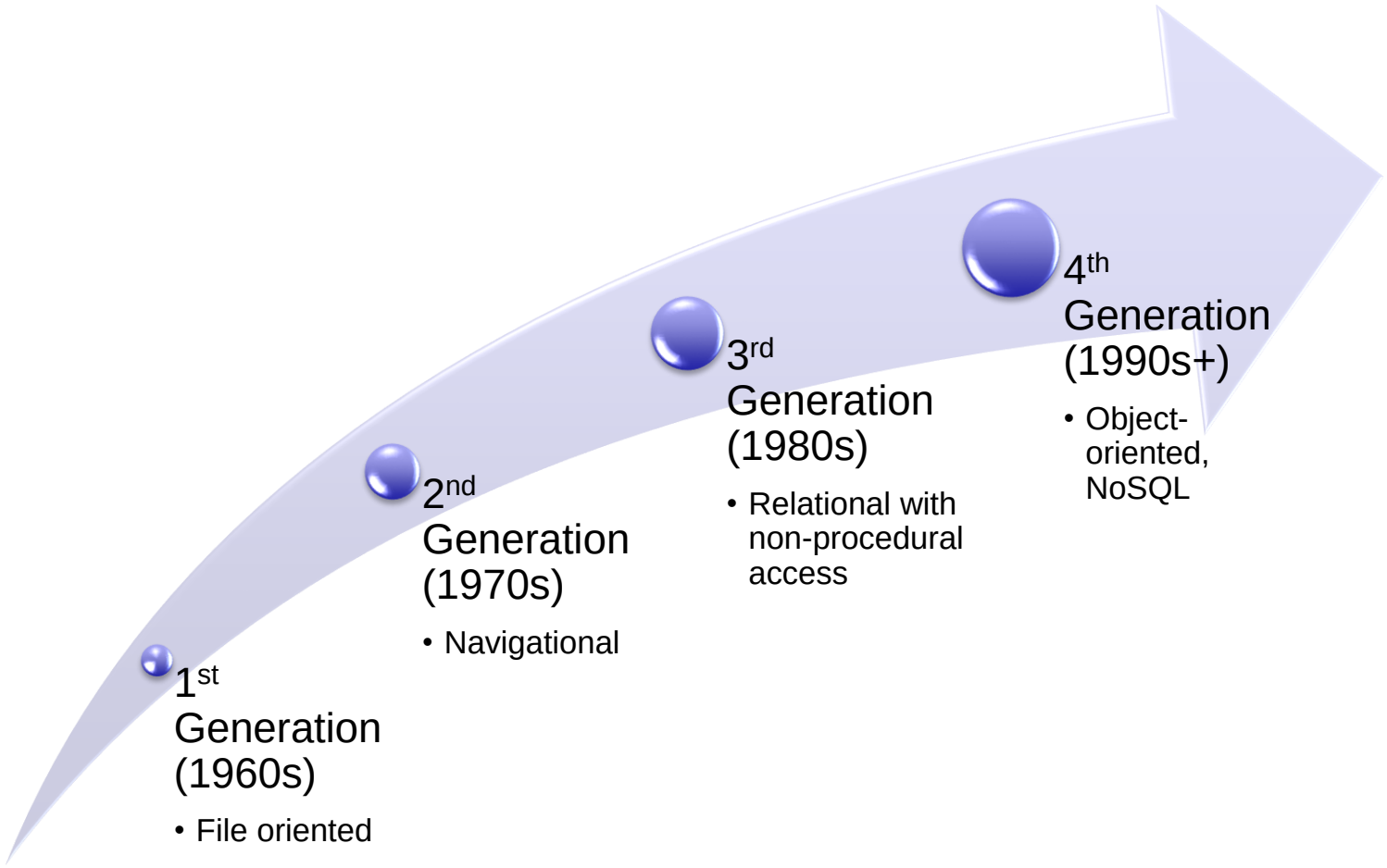
Module 2
Introduction to Databases and DBMSs

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 Linux; 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