Module: Database Cloud 361

Module name:	Database Cloud 361
Code:	DBC361
NQF level:	6
Type:	Speciality – Diploma in Information Technology (Database)
Contact Time:	24 hours
Structured time:	4 hours
Self-directed time:	12 hours
Notional hours:	40 hours
Credits:	4
Prerequisites:	DBD361

Purpose

This module introduces the cloud concepts. The uprose is to put into practice and implement more databases on the cloud. The student will be able to create an environment (an instance) to run a database, connect to the database and able to delete the database instance on the cloud. Students will be exposed to different cloud database platforms discussed during the course.

Outcomes

Upon successful completion of this module, the student will be able to demonstrate:

- Detailed knowledge and informed understanding of the core areas of a database cloud console, and an informed understanding of the database cloud connections.
- Demonstrate an informed understanding of database cloud setup and configuration within a specified database cloud platform.
- Demonstrate the advanced understanding of data organization, reading and writing in a cloud environment.
- The ability to describe and utilize a range of techniques for designing data warehouses for real-world applications and be able to make informed decisions to select and evaluate accepted and current Data warehousing technologies.
- Select and apply standard methods, procedures, or techniques to implement and maintain an efficient cloud database system using emerging trends.

Assessment

- Continuous evaluation of theoretical work through a written assignment and a summative test.
- Final assessment through an examination.
- The assignments or projects collectively will count 30% of your class mark.
- All tests will collectively account for 70% of your class mark.
- Your class mark contributes 30% towards your final mark for the subject, while the final assessment accounts for 70% of your final mark.

Teaching and Learning

Learning materials

Prescribed books (EBSCO)

- 📖 **Wiese, L. (2015) Advanced Data Management: For SQL, NoSQL, Cloud and Distributed Databases in De Gruyter Textbook. Berlin.**
- 📖 **Database Systems: Design, Implementation, and Management**
- 📖 **Authors: Peter Rob, Carol Coronel, Keeley Crocket**
- 📖 **Taylor, A.G. (2011). SQL All-In-One for Dummies. John Wiley & Sons Ltd. (ISBN:9780470929964)**

Learning activities

The teaching approach will use a combination of exercises, theory presentations and whole group discussions. It is a collaborative model with a practical approach, with a mandatory assignment which must be completed during the module.

Notional learning hours

Activity	Units	Contact Time	Structured Time	Self-Directed Time
Lecture		14.0		6.0
Formative feedback		2.0		
Project				
Assignment	1			3.0
Test	1		2.0	5.0
Exam	1		2.0	6.0
		16.0	**4.0**	**20.0**

Syllabus

- Overview, setup and configuration,
- Data organization,
- reading and writing,
- updating and deleting,
- working with lists in a real-time database.