



الجامعة الافتراضية السورية
SYRIAN VIRTUAL UNIVERSITY

Course Definition File

Database Systems Lab II

Information

Technology

Engineering



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Ministry of Higher Education		وزارة التعليم العالي
Syrian Virtual University		الجامعة الافتراضية السورية

1. Basic Information:

Course Name	Database Systems Lab II
Course ID	SDBL601
No. of Recorded Sessions*	12
No. of Synchronized Sessions*	12
No. of Quizzes (hrs.)	2
Exam (hrs.)	2
Registered Sessions Work Load (hrs.)	24
Synchronized Sessions Work Load (hrs.)	24
Credit Hours	4

* The duration of each session 1.5 hr

2. Pre-Requisites:

Course	ID
In Parallel with Database systems (2)	SDB601

3. Course Objectives:

The " Database Systems Lab II " course covers the responsibilities of an SQL Server database administrator and the basic tasks required to manage a server. In addition, it covers how to deal with the management of transactions, data storage and databases of various types (central and distributed).

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4. Learning Outcomes (LO):

Upon completion of the course, the student must:

- Master the advanced management of data storage.
- Mastery of security management.

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5. Assessment Results:

Chapter No.	Chapter Title	Intended Objectives	Assessment Type				
			Developed content/ Recorded Sessions	Practical Activities (Synchronized Sessions)	Quizzes and Exams	Presentations And Interviews	Reports
CH1	SQL Server	Comprehension –Analytical Thinking	X	X	X		X
CH2	Database Management	Comprehension –Analytical Thinking –Tools And Application Hands– On	X	X	X		X
CH3	SQL Server Security	Comprehension –Analytical Thinking –Tools And Application Hands– On	X	X	X		X
CH4	SQL SERVER – SERVICES	Comprehension –Analytical Thinking –Tools	X	X	X		X

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	and High Availability	And Application Hands- On					
CH5	SQL Server – Execution Plans	Comprehension –Analytical Thinking – Application Hands- On	X	X	X		X
CH6	Transaction Management in SQL Server	Comprehension –Analytical Thinking –Tools And Application Hands- On	X	X	X		X

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6. Course Syllabus

Chapter No.	Chapter Title	Chapter Content (Syllabus)	No. of Theoretical Learning Units	No. of Practical Learning Units)
CH1	SQL Server	<ol style="list-style-type: none"> 1. SQL Server Overview 2. Installing and Configuring SQL Server 3. Managing Database Files 	1	1
CH2	Database Management	<ol style="list-style-type: none"> 1. CREATING BACKUPS 2. RESTORING DATABASES 3. MANAGEMENT STUDIO 4. LOGIN DATABASE 5. CREATE DATABASE 6. SELECT DATABASE 7. DROP DATABASE 8. 	1	1
CH3	SQL Server Security	<ol style="list-style-type: none"> 1. CREATE USERS 2. ASSIGN PERMISSIONS 3. MONITOR DATABASE 	1	1
CH4	SQL SERVER – SERVICES and High Availability	<ol style="list-style-type: none"> 1. Start Services 2. Stop Services 3. Integration Services 4. Analysis Services 5. Replication 6. Log Shipping 	1	1

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		<ol style="list-style-type: none"> 7. Mirroring 8. Clustering 9. AlwaysON Availability Groups 		
CH5	SQL Server – Execution Plans	<ol style="list-style-type: none"> 1. Example 1 2. Example 2 3. Sample Database 	1	1
CH6	Transaction Management in SQL Server	<ol style="list-style-type: none"> 1. What is a Transaction? 2. What is Transaction Management? 3. How to implement Transaction in SQL Server? 4. Types of Transactions in SQL Server 5. Examples of Transactions 6. Nested Transactions in SQL Server with Examples 	1	1

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7. Practical Activity:

- Tools and Labs:

Tool Name	Description
MS SQL server	Database management system
Visual studio	Software development tools

- Practical Activities per Chapters:

Chapter	Practical Activity	Remarks
CH1	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Homework <input checked="" type="checkbox"/> Webinars <input type="checkbox"/> Project <input type="checkbox"/> Other	
CH2	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Homework <input checked="" type="checkbox"/> Webinars <input type="checkbox"/> Project <input type="checkbox"/> Other	
CH3	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Homework <input checked="" type="checkbox"/> Webinars <input type="checkbox"/> Project	

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	<input type="checkbox"/> Other	
CH4	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Homework <input checked="" type="checkbox"/> Webinars <input type="checkbox"/> Project <input type="checkbox"/> Other	
CH5	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Homework <input checked="" type="checkbox"/> Webinars <input type="checkbox"/> Project <input type="checkbox"/> Other	
CH6	<input checked="" type="checkbox"/> Exercises <input checked="" type="checkbox"/> Homework <input checked="" type="checkbox"/> Webinars <input type="checkbox"/> Project <input type="checkbox"/> Other	

8. References:

1. Tutorials Point (I) Pvt. Ltd, MS SQL Server, 2016.
https://www.tutorialspoint.com/ms_sql_server/ms_sql_server_tutorial.pdf
2. Andrew Fraser, SQL Server DBA Training, September 2010,
<http://andrewfraserdba.com>
3. Esat Erkec, Transactions in SQL Server for beginners, February 10, 2021,
<https://www.sqlshack.com/transactions-in-sql-server-for-beginners/>

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4. dotnettutorials, Transaction Management in SQL Server,
<https://dotnettutorials.net/lesson/transaction-management-in-sql-server/>