Session 2: DDL, DML, DQL, DCL, TCL

**Estimated Completion Time: 60 Minutes**



Let’s now focus on the online feedback system for training company called Alliance.

The system flow is well analyzed & ER Model is ready.

Now it’s time to develop the required table structure, but the constraint from client is that all queries must be written using only ANSI SQL Syntax.

Exercise 2.1

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| Hands-on Exercise Objective |  |
| After completing the hands-on exercises, you will be able to:  Understand How to Create Tables |  |
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Problem Statement:

You have to create all tables whose structure is as mentioned below:

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| --- | --- | --- | --- |
| Trainer\_Info | | | |
| Field | Description | Type | Size |
| Trainer\_Id | Unique ID to every trainer | Character | 20 |
| Salutation | Salutaion of trainer | Character | 7 |
| Trainer\_Name | Name of trainer | Character | 30 |
| Trainer\_Location | Location of trainer | Character | 30 |
| Trainer\_Track | Track of trainer e.g. JAVA, .Net, Mainframe | Character | 15 |
| Trainer\_Qualification | Qualification of trainer e.g. MCA,B. Tech | Character | 100 |
| Trainer\_Experiance | Experience of trainer e.g .2,4 years | Integer | 11 |
| Trainer\_Email | Email Id of trainer | Character | 100 |
| Trainer\_Password | Login password of Trainer | Character | 20 |

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| --- | --- | --- | --- |
| Batch\_Info | | | |
| Field | Description | Type | Size |
| Batch\_Id | Unique ID to every batch | Character | 20 |
| Batch\_Owner | Batch owner name | Character | 30 |
| Batch\_BU\_Name | Business unit to which batch belongs | Character | 30 |

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| --- | --- | --- | --- |
| Module\_Info | | | |
| Field | Description | Type | Size |
| Module\_Id | Unique ID to every module e.g J2SE, J2EE | Character | 20 |
| Module\_Name | Name of module e.g. Core Java SE 1.6 | Character | 40 |
| Module\_Duration | Duration in hrs | Integer | 11 |

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| --- | --- | --- | --- |
| Associate\_Info | | | |
| Field | Description | Type | Size |
| Associate\_Id | Unique ID to every associate | Character | 20 |
| Salutation | Salutaion of associate | Character | 7 |
| Associate\_Name | Name of associate | Character | 30 |
| Associate\_Location | Location of associate | Character | 30 |
| Associate\_Track | Track of associate e.g. JAVA, .Net, Mainframe | Character | 15 |
| Associate\_Qualification | Qualification of associate e.g. MCA,B. Tech | Character | 200 |
| Associate\_Email | Email Id of associate | Character | 100 |
| Associate\_Password | Login password of associate | Character | 20 |

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| --- | --- | --- | --- |
| Questions | | | |
| Field | Description | Type | Size |
| Question\_Id | Unique ID to every question | Character | 20 |
| Module\_Id | Module id from module | Character | 20 |
| Question\_Text | Actual feedback question | Character | 900 |

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| --- | --- | --- | --- |
| Associate\_Status | | | |
| Field | Description | Type | Size |
| Associate\_Id | Associate Id from associate\_Info | Character | 20 |
| Module\_Id | Module Id from module | Character | 20 |
| Start\_Date | Date when associate batch started | Character | 20 |
| End\_Date | Date when associate batch ended | Character | 20 |
| AFeedbackGiven | Flag to test whether Associate has given feedback or not | Character | 20 |
| TFeedbackGiven | Flag to test whether Trainer has given feedback or not | Character | 20 |

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| --- | --- | --- | --- |
| Trainer\_Feedback | | | |
| Field | Description | Type | Size |
| Trainer\_Id | Trainer Id from trainer\_Info | Character | 20 |
| Question\_Id | Question Id from Questions | Character | 20 |
| Batch\_Id | Batch Id from batch\_Info | Character | 20 |
| Module\_Id | Module Id from module | Character | 20 |
| Trainer\_Rating | Rating given by trainer for a perticular question | Integer | 11 |

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| --- | --- | --- | --- |
| Associate\_Feedback | | | |
| Field | Description | Type | Size |
| Associate\_Id | Associate Id from associate\_Info | Character | 20 |
| Question\_Id | Question Id from Questions | Character | 20 |
| Module\_Id | Module Id from module | Character | 20 |
| Associate\_Rating | Rating given by associate for a perticular question | Integer | 11 |

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| --- | --- | --- | --- |
| Login\_Details | | | |
| Field | Description | Type | Size |
| User\_Id | User id for login | Character | 20 |
| User\_Password | Password to authenticate user | Character | 20 |

Deliverables Expected:

All Tables creation as per details mentioned above

Exercise 2.2

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| Hands-on Exercise Objective |
| After completing the hands-on exercises, you will be able to:  Understand how to alter table |
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Problem Statement:

Modify the table Associate\_Status to include following two columns:

Column Name: Batch\_Id

Details: Batch Id from batch\_Info

Data Types: Character

Size: 20

Column Name: Trainer\_Id

Details: Trainer Id from trainer\_Info

Data Types: Character

Size: 20

Modify two columns data types of the table Associate\_Status as follows:

Start\_Date

Desired Type: Date

End\_Date

Desired Type: Date

Deliverables Expected:

New Columns in batch\_Info & trainer\_Info & changed column data types

Exercise 2.3

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| Hands-on Exercise Objective |
| After completing the hands-on exercises, you will be able to:  Insert data into tables |
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Problem Statement:

Insertbelow details into table:

Trainer\_Info

Trainer\_Id,Salutation,Trainer\_Name,Trainer\_Location,Trainer\_Track,Trainer\_Qualification,Trainer\_Experiance,Trainer\_Email,Trainer\_Password

F001,Mr.,PANKAJ GHOSH,Pune,Java,Bachelor of Technology,12,Pankaj.Ghosh@alliance.com,fac1@123

F002,Mr.,SANJAY RADHAKRISHNAN ,Bangalore,DotNet,Bachelor of Technology,12,Sanjay.Radhakrishnan@alliance.com,fac2@123

F003,Mr.,VIJAY MATHUR,Chennai,Mainframe,Bachelor of Technology,10,Vijay.Mathur@alliance.com,fac3@123

F004,Mrs.,NANDINI NAIR,Kolkata,Java,Master of Computer Applications,9,Nandini.Nair@alliance.com,fac4@123

F005,Miss.,ANITHA PAREKH,Hyderabad,Testing,Master of Computer Applications,6,Anitha.Parekh@alliance.com,fac5@123

F006,Mr.,MANOJ AGRAWAL ,Mumbai,Mainframe,Bachelor of Technology,9,Manoj.Agrawal@alliance.com,fac6@123

F007,Ms.,MEENA KULKARNI,Coimbatore,Testing,Bachelor of Technology,5,Meena.Kulkarni@alliance.com,fac7@123

F009,Mr.,SAGAR MENON ,Mumbai,Java,Master of Science In Information Technology,12,Sagar.Menon@alliance.com,fac8@123

Batch\_Info

Batch\_Id,Batch\_Owner,Batch\_BU\_Name

B001,MRS.SWATI ROY,MSP

B002,MRS.ARURNA K,HEALTHCARE

B003,MR.RAJESH KRISHNAN,LIFE SCIENCES

B004,MR.SACHIN SHETTY,BFS

B005,MR.RAMESH PATEL,COMMUNICATIONS

B006,MRS.SUSAN CHERIAN,RETAIL & HOSPITALITY

B007,MRS.SAMPADA JAIN,MSP

B008,MRS.KAVITA REGE,BPO

B009,MR.RAVI SEJPAL,MSP

Module\_Info

Module\_Id,Module\_Name,Module\_Duration

O10SQL,Oracle 10g SQL ,16

O10PLSQL,Oracle 10g PL/ SQL ,16

J2SE,Core Java SE 1.6,288

J2EE,Advanced Java EE 1.6,80

JAVAFX,JavaFX 2.1,80

DOTNT4,.Net Framework 4.0 ,50

SQL2008,MS SQl Server 2008,120

MSBI08,MS BI Studio 2008,158

SHRPNT,MS Share Point ,80

ANDRD4,Android 4.0,200

EM001,Instructor,0

EM002,Course Material,0

EM003,Learning Effectiveness,0

EM004,Environment,0

EM005,Job Impact,0

TM001,Attendees,0

TM002,Course Material,0

TM003,Environment,0

Associate\_Info

Associate\_Id,Salutation,Associate\_Name,Associate\_Location,Associate\_Track,Associate\_Qualification,Associate\_Email,Associate\_Password

A001,Miss.,GAYATHRI NARAYANAN,Gurgaon,Java,Bachelor of Technology,Gayathri.Narayanan@hp.com,tne1@123

A002,Mrs.,RADHIKA MOHAN,Kerala,Java,Bachelor of Engineering In Information Technology,Radhika.Mohan@cognizant.com,tne2@123

A003,Mr.,KISHORE SRINIVAS,Chennai,Java,Bachelor of Engineering In Computers,Kishore.Srinivas@ibm.com,tne3@123

A004,Mr.,ANAND RANGANATHAN,Mumbai,DotNet,Master of Computer Applications,Anand.Ranganathan@finolex.com,tne4@123

A005,Miss.,LEELA MENON,Kerala,Mainframe,Bachelor of Engineering In Information Technology,Leela.Menon@microsoft.com,tne5@123

A006,Mrs.,ARTI KRISHNAN,Pune,Testing,Master of Computer Applications,Arti.Krishnan@cognizant.com,tne6@123

A007,Mr.,PRABHAKAR SHUNMUGHAM,Mumbai,Java,Bachelor of Technology,Prabhakar.Shunmugham@honda.com,tne7@123

Questions

Question\_Id,Module\_Id,Question\_Text

Q001,EM001,Instructor knowledgeable and able to handle all your queries

Q002,EM001,All the topics in a particular course handled by the trainer without any gaps or slippages

Q003,EM002,The course materials presentation, handson, etc. refered during the training are relevant and useful.

Q004,EM002,The Hands on session adequate enough to grasp the understanding of the topic.

Q005,EM002,The reference materials suggested for each module are adequate.

Q006,EM003,Knowledge and skills presented in this training are applicatible at your work

Q007,EM003,This training increases my proficiency level

Q008,EM004,The physical environment e.g. classroom space, air-conditioning was conducive to learning.

Q009,EM004,The software/hardware environment provided was sufficient for the purpose of the training.

Q010,EM005,This training will improve your job performance.

Q011,EM005,This training align with the business priorities and goals.

Q012,TM001,Participants were receptive and had attitude towards learning.

Q013,TM001,All participats gained the knowledge and the practical skills after this training.

Q014,TM002,The course materials presentation, handson, etc. available for the session covers the entire objectives of the course.

Q015,TM002,Complexity of the course is adequate for the particpate level.

Q016,TM002,Case study and practical demos helpful in understanding of the topic

Q017,TM003,The physical environment e.g. classroom space, air-conditioning was conducive to learning.

Q018,TM003,The software/hardware environment provided was adequate for the purpose of the training.

Associate\_Status

Associate\_Id,Module\_Id,Batch\_Id,Trainer\_Id,Start\_Date,End\_Date

A001,O10SQL,B001,F001,2000-12-15,2000-12-25

A002,O10SQL,B001,F001,2000-12-15,2000-12-25

A003,O10SQL,B001,F001,2000-12-15,2000-12-25

A001,O10PLSQL,B002,F002,2001-2-1,2001-2-12

A002,O10PLSQL,B002,F002,2001-2-1,2001-2-12

A003,O10PLSQL,B002,F002,2001-2-1,2001-2-12

A001,J2SE,B003,F003,2002-8-20,2002-10-25

A002,J2SE,B003,F003,2002-8-20,2002-10-25

A001,J2EE,B004,F004,2005-12-1,2005-12-25

A002,J2EE,B004,F004,2005-12-1,2005-12-25

A003,J2EE,B004,F004,2005-12-1,2005-12-25

A004,J2EE,B004,F004,2005-12-1,2005-12-25

A005,JAVAFX,B005,F006,2005-12-4,2005-12-20

A006,JAVAFX,B005,F006,2005-12-4,2005-12-20

A006,SQL2008,B006,F007,2007-6-21,2007-6-28

A007,SQL2008,B006,F007,2007-6-21,2007-6-28

A002,MSBI08,B007,F006,2009-6-26,2009-6-29

A003,MSBI08,B007,F006,2009-6-26,2009-6-29

A004,MSBI08,B007,F006,2009-6-26,2009-6-29

A002,ANDRD4,B008,F005,2010-6-5,2010-6-28

A005,ANDRD4,B008,F005,2010-6-5,2010-6-28

A003,ANDRD4,B009,F005,2011-8-1,2011-8-20

A006,ANDRD4,B009,F005,2011-8-1,2011-8-20

Deliverables Expected:

All records inserted in tables

Exercise 2.4

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| Hands-on Exercise Objective | |
| After completing the hands-on exercises, you will be able to:  Understand how to change data in table | |
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Problem Statement:

Change the password of trainer F004 from fac4@123 to nn4@123

Deliverables Expected:

Updated password of trainer F004.

Exercise 2.5

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| Hands-on Exercise Objective |
| After completing the hands-on exercises, you will be able to:  Understand how to delete data from table. |
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Problem Statement:

Remove following record form associate\_status table

A003,J2EE,B004,F004,2005-12-1,2005-12-25

Deliverables Expected:

Removed record from associate status.

Exercise 2.6

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| Hands-on Exercise Objective |
| After completing the hands-on exercises, you will be able to:  Understand how to perform TOP N records. |
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Problem Statement:

Fetch first five trainers who have maximum years of experience & display there details.

Deliverables Expected:

Top five experience trainers.

Exercise 2.7

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| Hands-on Exercise Objective |
| After completing the hands-on exercises, you will be able to:  Understand transaction. |
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Problem Statement:

Begin transaction & insert below torecords intoLogin\_Details

'U001' Admin1@123

'U002' Admin2@123

Perform rollback operation & verify whether any records are inserted in table or not.

Deliverables Expected:

Empty table

Exercise 2.8

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| Hands-on Exercise Objective |
| After completing the hands-on exercises, you will be able to:  Understand TCL. |
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Problem Statement:

Create a dummy user in database. Grant create & select table privilege to him/her.

Repeat the above all queries using login credentials of newly created user.

Revoke the privilege assigned to this newly created user.

Deliverables Expected:

Same result as achieved till now.

Exercise 2.9

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| Hands-on Exercise Objective |
| After completing the hands-on exercises, you will be able to:  Understanding how to drop table. |
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Problem Statement:

Remove table Login\_Details from database.

Deliverables Expected:

No table found message while querying Login\_Details table.