

TRAINING

SQL HANDSON EXERCISES

EMPLOYEE ID- 2211586

COHORT CODE- CDB22DW022

Show databases;

Create database Handsonsql;

Use Handsonsql;

EXERCISE 1

```
CREATE TABLE Trainer_Info(  
Trainer_Id varchar(20) primary key,  
Salutation varchar(7),  
Trainer_Name varchar(30),  
Trainer_Location varchar(30),  
Trainer_Track varchar(15),  
Trainer_Qualification varchar(100),  
Trainer_Experience int,  
Trainer_Email varchar(100),  
Trainer_Password varchar(20)  
);
```

```
create table Batch_Info(  
Batch_Id varchar(20) Primary key,  
Batch_Owner varchar(30),  
Batch_BU_Name varchar(30)  
);
```

```
Create Table Module_Info(  
Module_Id varchar(20) Primary key,  
Module_Name varchar(40),  
Module_Duration int  
);
```

```
create table Associate_Info(  
Associate_Id varchar(20) Primary key,  
Salutation varchar(7),  
Associate_Name varchar(30),  
Associate_Location varchar(30),  
Associate_Track varchar(15),  
Associate_Qualification varchar(200),  
Associate_Email varchar(100),  
Associate_Password varchar(20)  
);
```

```
create table Questions(  
Question_Id varchar(20) Primary key,  
Module_Id varchar(20),  
Question_Text varchar(900),  
Foreign key(Module_Id) references  
Module_Info(Module_Id)  
);
```

```
Create Table Associate_Status(  
Associate_Id varchar(20),  
Module_Id varchar(20),  
Batch_Id varchar(20),  
Trainer_Id varchar(20),  
Start_Date varchar(20),  
End_Date varchar(20),  
Primary key(Associate_Id,Module_Id),  
Foreign key(Associate_Id) references  
Associate_Info(Associate_Id),  
Foreign key(Batch_Id) references Batch_Info(Batch_Id),
```

```
Foreign key(Trainer_Id) references
Trainer_Info(Trainer_Id),
Foreign key(Module_Id) references
Module_Info(Module_Id)
);
```

```
Create Table Trainer_Feedback(
Trainer_Id varchar(20),
Question_Id varchar(20),
Batch_Id varchar(20),
Module_Id varchar(20),
Trainer_Rating int,
Primary key(Trainer_Id,Question_Id),
Foreign key(Trainer_Id) references
Trainer_Info(Trainer_Id),
Foreign key(Question_Id) references
Questions(Question_Id),
Foreign key(Batch_Id) references Batch_Info(Batch_Id),
Foreign key(Module_Id) references
Module_Info(Module_Id)
);
```

```
Create Table Associate_Feedback(
Associate_Id varchar(20),
Question_Id varchar(20),
Module_Id varchar(20),
Associate_Rating int,
Primary key(Associate_Id,Question_Id),
Foreign key(Associate_Id) references
Associate_Info(Associate_Id),
Foreign key(Question_Id) references
Questions(Question_Id),
Foreign key(Module_Id) references
Module_Info(Module_Id)
);
```

```
create table Login_Details(
User_Id varchar(20),
User_Password varchar(20)
);
```

EXERCISE 2

Insert Into Trainer_Info

Values

```
('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','fa
c2@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');
```

Insert Into Batch_Info

Values

```
('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');
```

Insert Into Module_Info

Values

```
('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);
```

```
INSERT INTO Associate_Info
```

```
VALUES
```

```
('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'  
);
```

INSERT INTO Questions

VALUES

('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. referred 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. ');

```

```

INSERT INTO Associate_Status

```

```

Values

```

```

('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');

EXERCISE 3

```
UPDATE Trainer_Info SET Trainer_Password='nn4@123'  
WHERE Trainer_ID='F004';
```

EXERCISE 4

```
DELETE FROM Associate_Status  
  
WHERE Associate_Id='A003' AND Module_Id='J2EE' AND  
Batch_Id='B004' AND Trainer_Id='F004' AND  
Start_Date='2005-12-1' AND End_Date='2005-12-25';
```

EXERCISE 5

```
Select * From Trainer_Info Order By Trainer_Experience  
DESC limit 5;
```

EXERCISE 6

```
select * From Login_Details;  
Start Transaction;  
Insert Into Login_Details  
Values  
('U001','Admin1@123'),  
('U002','Admin2@123');  
Rollback;  
SELECT * FROM login_Details;
```

EXERCISE 7

```
CREATE USER 'vaishu'@ Identified By 'Password';  
Grant Create on Handsonsql TO 'vaishu'@;  
Grant Create On Handsonsql.Login_Details TO 'vaishu'@;  
Start Transaction;  
select *From Login_Details;  
Insert Into Login_Details  
Values  
('U001','Admin1@123'),  
('U002','Admin2@123');  
Rollback;
```

```
SELECT * FROM login_Details;
REVOKE CREATE ON Handsonsql From 'vaishu'@ ;
REVOKE SELECT ON Handsonsql.login_Details From
'vaishu'@ ;
```

EXERCISE 8

```
Drop Table Login_Details;
```

EXERCISE 9

```
CREATE TABLE Suppliers(
Supplier_Id int Not Null,
Supplier_Name varchar(50) Not Null,
Address varchar(50),
City varchar(50),
State varchar(25),
Zip_Code varchar(10));
```

EXERCISE 10

```
CREATE TABLE Course(
Course_code varchar(50),
Base_Fees int,
Special_Fees int,
Created_By varchar(25),
Updated_By varchar(25));
```

```
CREATE TABLE Course_Fees(
Course_code varchar(50),
Base_Fees int,
Special_Fees int,
Discount int);
```

```
Insert into Course_Fees values
('1',180,100,10), ('2',150,110,10), ('3',160,170,5), ('4'
,150,100,10), ('6',190,100,40);
```

```
CREATE TABLE Course_Fees_History(
Course_code varchar(50),
Base_Fees int,
```

```
Special_Fees int,  
Created_By varchar(25),  
Updated_By varchar(25));
```

```
Insert into Course_Fees_History values  
( '1',120,123,'Ram','Ramesh'), ('2',150,110,'Bala','Ram'  
) , ('3',160,170,'Bala','Vinu'), ('4',170,235,'Ram','Ram'  
) , ('6',190,100,'Vinod','Vinod');
```

```
Select Course_Code,Base_Fees,Special_Fees From  
Course_Fees UNION  
Select Course_Code,Base_Fees,Special_Fees From  
Course_Fees_History;
```

EXERCISE 11

```
select count(*) From Course_Fees;  
select count(Distinct(Course_Code)) From Course_Fees;  
select count(Distinct(Base_Fees)) From Course_Fees;  
select count(Distinct(Special_Fees)) From Course_Fees;
```

```
select count(*) From Course_Fees_History;  
select count(Distinct(Course_Code)) From  
Course_Fees_History;  
select count(Distinct(Base_Fees)) From  
Course_Fees_History;  
select count(Distinct(Special_Fees)) From  
Course_Fees_History;
```

EXERCISE 12

```
Create Table Course_Info (  
Course_Code varchar(20)Primary Key,  
Course_Name varchar(20)Not Null,  
Course_Description varchar(25),  
Course_Start_Date date,  
Course_Duration int,  
No_of_Participants int,  
Course_Type char(3));
```

```
Create Table Student_Info (  
Student_Id varchar(10)Primary key,  
First_Name varchar(20),  
Last_Name varchar(25),
```

```
Address varchar(150));
```

```
Insert Into Course_Fees Values  
('8',Null,300,20),('9',Null,200,5);  
Insert Into Course_Fees Values  
('8',300,500,20),('9',175,300,5);  
select Min(ifNull(Base_Fees,0)),Max(Base_Fees) from  
Course_Fees;
```

EXERCISE 13 and 14

```
Select Count(*) From Course_Fees;  
Select * From Course_Fees;  
Alter table Course_Fees  
Add Column Infra_Fees Decimal (5,3);  
CREATE TABLE Infra_Fees(  
Infra_Fees Decimal(5,3)Primary key);  
Insert into Infra_Fees values  
(42.333), (41.111), (45.666), (47.656), (49.707), (40.300),  
(44.393), (42.000), (46.212);  
select * From Infra_Fees;  
select * From Course_Fees Join Infra_Fees;  
select Round(Avg(Infra_Fees)) From Infra_Fees;  
Select DateDiff(Curdate(),Course_Start_date)As  
No_Of_Days From Course_Info;
```

EXERCISE 15

```
Select Concat('<',Course Name,>','<',Course  
Code,>')From Course_ Info
```

EXERCISE 16

```
select Avg(IfNull(Base_Fees,0))From Course_Fees;
```

EXERCISE 17

```
Alter table Course_Info ADD message varchar(30);

Insert Into
Course_Info(Course_Code,Course_name,Course_Type,message)
values
('CS06','G','CLR','Class Room'),
('CS07','K','EL','ELearning'),
('CS08','L','OF','Offline Reading');
```

EXERCISE 18

```
Select Course_Start_Date, Sum(No_of_Participants) As
NO_of_Participants
From Course_Info Group By Course_Start_Date;
```

EXERCISE 19

```
Select Course_Start_Date, Sum(No_of_Participants) As
NO_of_Participants
From Course_Info Where Course_Type='CLR' Group By
Course_Start_Date;
```

EXERCISE 20

```
Select Course_Start_Date, Sum(No_of_Participants) As
NO_of_Participants
From Course_Info Where Course_Type='CLR' Group By
Course_Start_Date Having Sum(No_Of_Participants)>10;
```

EXERCISE 21

```
select Course_Name From Course_Info Order By
Course_Duration;
```

EXERCISE 22

```
Alter table Student_Info
Add Column Course_Code varchar(10)References
Course_Info (Course_Code);

Select
Student_Info.Student_Id,Student_Info.First_Name,Student
_Info.Last_Name,Course_Info.Course_Code
From Student_Info INNER JOIN Course_Info On
Student_Info.Course_Code=Course_Info.Course_Code
Where Student_Info.Course_Code='167';
```

EXERCISE 23

```
Select Course_Fees.Discount,Course_Info.Course_Code
From Course_Fees
INNER JOIN Course_Info On Course_Info.Course_Code=
Course_Fees.Course_Code;
```

EXERCISE 24

```
Insert Into Student_Info Values
('B001','vara','Lakshmi','Tiruttani','CS07'),
('B002','hima','priya','chennai','CS015'),
('B003','Rukesh','kumar','bangalore','CS06');

select Student_info.First_Name,
Course_Info.Course_Code From Student_Info LEFT JOIN
Course_Info On Student_Info.Course_Code =
Course_Info.Course_Code;

select Student_info.First_Name,
Course_Info.Course_Code From Student_Info RIGHT JOIN
```

```
Student_Info On Student_Info.Course_Code =  
Course_Info.Course_Code;
```

EXERCISE 25

```
Select* from Course_Fees;
```

```
Insert Into Course_Info  
Values('7','hima','Machine','1998-05-  
17',17,1,'EL','ELearning'),
```

```
('28','Priya','Python','2005-07-19',25,1,'CLR','Class  
Room');
```

```
Insert Into Course_Fees Values
```

```
('CSID',2000,500,10,42),
```

```
('MSID',5000,300,5,48);
```

```
Insert Into Student_Info values
```

```
('CSID','janu','navi','Tiruttani','Tiruvallur'),
```

```
('MSBD','Raja','kumar','Chennai','saidapet');
```

```
Select Student_Info.Student_Id From Student_Info INNER  
JOIN Course_Fees On
```

```
Student_Info.Course_code=Course_Fees.Course_code
```

```
Where ((Base_Fees + Special_Fees + Infra_Fees)*(1-  
Discount/100))<1500;
```

EXERCISE 26

```
Select Distinct
```

```
Student_Info.Student_Id,Student_Info.First_name
```

```
From Student_Info INNER JOIN Course_Fees On
```

```
Student_Info.Course_code=Course_Fees.Course_code
```

```
Where ((Base_Fees + Special_Fees + Infra_Fees)*(1-  
Discount/100))<1500;
```