

SQL HANDS-ON FINAL SUBMISSION

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 INTEGER,  
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 INTEGER  
);
```

```
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)
);

CREATE TABLE Associate_Status(
Associate_Id VARCHAR(20),
Module_Id VARCHAR(20),
Start_Date VARCHAR(20),
End_Date VARCHAR(20),
AFeedbackGiven VARCHAR(20),
TFeedbackGiven VARCHAR(20),
PRIMARY KEY(Associate_Id,Module_Id),
FOREIGN KEY(Associate_Id) REFERENCES Associate_Info(Associate_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 INTEGER,

```

```

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 INTEGER,
    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) PRIMARY KEY,
    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','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');
```

```
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 applicable 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 participants 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 participant 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.');

Alter table associate_status

add column Batch_Id varchar(50);

Alter table associate_status

add column Trainer_Id varchar(50);

insert into Associate_Status (Associate_Id,Module_Id,Batch_Id,Trainer_Id,Start_Date,End_Date)

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_Password = 'fac4@123 to' AND 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 nisha IDENTIFIED BY 'abcd';
```

```
GRANT CREATE ON handsonassignment.login_details to nisha with grant option;
```

```
GRANT SELECT ON handsonassignment.login_details to nisha with grant option;
```

```
select * from login_details;
```

```
start transaction;
```

```
insert into login_details values('U001','Admin1@123'),('U002','Admin2@123');
```

```
rollback;
```

```
select * from login_details;
```

```
revoke create on handsonassignment.login_details from nisha;
```

```
revoke select on handsonassignment.login_details from nisha;
```

EXERCISE 8

```
DROP TABLE login_details;
```

EXERCISE 9

```
CREATE TABLE Supplies(
```

```
Supplier_Id INTEGER(10) 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_Fees(  
  Course_code VARCHAR PRIMARY KEY,  
  Base_fees INTEGER,  
  Special_fees INTEGER,  
  Discount INTEGER  
);
```

```
INSERT INTO course_fees(Course_code,Base_fees,Special_fees,Discount)  
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 PRIMARY KEY,  
  base_fees INTEGER,  
  special_fees INTEGER,  
  created_by VARCHAR,  
  updated_by VARCHAR  
);
```

```
INSERT INTO course_fees_history(course_code,base_fees,special_fees,created_by,updated_by)  
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(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;
```

```
CREATE TABLE course_info(  
course_code VARCHAR(10) PRIMARY KEY,  
course_name VARCHAR(20) NOT NULL,  
course_description VARCHAR(25),  
course_start_date DATE,  
course_duration INTEGER,  
no_of_participants INTEGER,  
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)  
);
```

EXERCISE 12

```
SELECT * FROM course_fees;  
INSERT INTO course_fees(course_code,base_fees,special_fees,discount)  
VALUES  
( '9',NULL,'2000','25'),  
( '12',NULL,'3000','50'),  
( '14','300','4000','25'),  
( '31','175','5000','50');  
SELECT MAX(base_fees)  
FROM course_fees;  
SELECT MIN(base_fees)  
FROM course_fees;
```

EXERCISE 13 AND 14

```
SELECT * FROM course_fees;  
CREATE TABLE newcol(  
sn VARCHAR PRIMARY KEY,  
infra_fees DECIMAL(5,3));  
ALTER TABLE course_fees  
ADD infra_fees DECIMAL(5,3);  
INSERT INTO newcol  
VALUES  
(1,41.3456),
```

```

(2,31.5678),
(3,55.6789),
(4,98.1234),
(6,77.6789),
(9,44.5674),
(12,34.3654),
(14,77.7777),
(31,45.7890);

SELECT AVG(newcol.infra_fees)
FROM course_fees
INNER JOIN newcol
ON course_fees.course_code = newcol.sn;

SELECT DATEDIFF(curdate(),course_start_date) FROM course_info;

```

EXERCISE 15

```

SELECT CONCAT('<',course_name,'>','<',course_code,'>')
FROM course_info;

```

EXERCISE 16

```

SELECT AVG(COALESCE(base_fees,0))
FROM course_fees;

```

EXERCISE 17

```

SELECT * FROM course_info;

ALTER TABLE course_info
ADD message VARCHAR(40);

INSERT INTO course_info(course_code,course_name,course_type,message)
VALUES

```

```
('CS01','A','CLR','Class Room'),  
('CS02','B','EL','ELearning'),  
('CS03','C','OF','Offline Reading');  
  
SELECT course_type,message  
FROM course_info  
WHERE course_type in ('CLR','EL','OF');
```

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

```
SELECT * FROM course_info;

INSERT INTO course_info(course_code,course_name,course_type,message)
VALUES
('167','D','ON','OnlineLearning');

ALTER TABLE student_info
ADD COLUMN course_code VARCHAR;

INSERT INTO student_info(student_id,first_name,last_name,address,course_code)
VALUES
('1','Ram','Singh','Banglore','167'),
('2','Nisha','Choudhary','Bhilwara','244');

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;
```

EXERCISE 23

```
SELECT course_fees.discount,course_info.course_description
FROM course_fees
INNER JOIN course_info
ON course_info.course_code = course_fees.course_code;
```

EXERCISE 24

```
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 course_info right join
student_info on course_info.course_code=student_info.Course_code;
```

EXERCISE 25

```
select * from course_info;
insert into course_info
values
('7','python','coding','2021-09-09','56','12','CLR'),
('8','C++','coding','2021-05-09','5','18','EL');
```

```
select * from course_fees;
```

```
insert into course_fees
values
('7','250','800','87','69.987'),
('8','450','963','54','30.987');
```

```
select * from student_info;
```

```
insert into student_info
values
('45','khyati','dahiya','delhi','7'),
('46','mridul','singh','punjab','8');
```



```
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;
```