

SQL HANDSON

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Create database Handson;

Use handson;

Exercise 1

Table1- Trainer_Info

use Handson;

```
create table Trainer_info(  
Trainer_id VARCHAR(20) unique ,  
Salutation varchar(7) not null,  
Trainer_Name varchar(30) not null,  
Trainer_Location varchar(30) not null,  
Trainer_Track varchar(15) not null,  
Trainer_Qualification varchar(100) not null,  
Trainer_Experience int(11) not null,  
Trainer_Email varchar(100),  
Trainer_password varchar(20),  
primary key(Trainer_id)  
)
```

Table2- Batch_Info

```
create table Batch_info(  
Batch_id varchar(20) unique,  
Batch_Owner varchar(30) not null,  
Batch_BU_Name varchar(30) not null  
);
```

Table3- Module_Info

```
create table Module_info(  

```

```
Module_id varchar(20) not null,  
Module_Name varchar(40) not null,  
Module_Duration int not null  
);
```

Table4- Associate_Info

```
create table Associate_info(  
Associate_id varchar(20) not null,  
Salutation varchar(7) not null,  
Associate_Name varchar(30) not null,  
Associate_Location varchar(30) not null,  
Associate_Track varchar(15) not null,  
Associate_Qualification varchar(200) not null,  
Associate_Email varchar(100) not null,  
Associate_Password varchar(20) not null  
);
```

Table5- Questions

```
create table Questions(  
Question_id varchar(20) not null,  
Module_id varchar(20) not null,  
Question_Text varchar(900) not null  
);
```

Table6- Associate-Status

```
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),
AfeedbackGiven varchar(20) ,
TfeedbackGiven varchar(20),
primary key(Associate_id,Module_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),
foreign key(Associate_id) references associate_info(Associate_id)
);
```

Table7- Trainer_Feedback

```
create table Trainer_Feedback(
Trainer_id varchar(20) not null,
Question_id varchar(20) not null,
Batch_id varchar(20) not null,
Module_id varchar(20) not null,
Trainer_Rating int(11) not null
);
```

Table8- Associate Feedback

```
create table Associate_Feedback(
Associate_id varchar(20),
Question_id varchar(20),
Module_id varchar(20),
Associate_Rating int(11)
);
```

Table9- Login_Details

```
create table Login_Details(
User_id varchar(20) not null,
```

User_Password varchar(20) not null

);

Exercise-2

Table1- Trainer_Info

insert into trainer_info values('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');

Table2- Batch_Info

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');

Table3- Module_Info

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);
```

Table4- Associate_Info

```
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');

Table5- Questions

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. 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.')

Table6- Associate_Status

insert into Associate_Status

values(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');

Exercise-3

```
use handson;  
update trainer_info  
set Trainer_password = 'nn4@123'  
where Trainer_password = 'fac4@123';
```

Exercise-4

```
delete from associate_status  
  
where Associate_id='A001' 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 Trainer_Experience From Trainer_info  
  
order by Trainer_Experience desc  
  
limit 5;
```

Exercise -6

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

Exercise-7

```
use handson;  
  
create user sachin_saini IDENTIFIED BY 'abcd';  
  
GRANT CREATE ON handson.login_details to sachin_saini with grant option;  
  
GRANT SELECT ON handson.login_details to sachin_saini 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 sachin_saini;

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

Exercise-8

```
drop table login_details;
```

Exercise-9

```
create table suppliers(
supplier_id int(10) not null,
supplier_name varchar(50) not null,
address varchar(50),
city varchar(50),
state varchar(25),
zip_code varchar(10),
primary key(supplier_id)
);
```

Exercise-10

```
create table courses(
Course_Code varchar(10),
Base_fees int(30),
Special_fees int,
Created_By varchar(30),
```

Updated_By varchar(30)

);

create table Course_Fees(

Course_code INT,

Base_Fees INT,

Special_Fees int,

Discount int

);create table Course_Fees_History(

Course_Code INT,

Base_Fees INT,

Special_Fees INT,

Created_BY varchar(20),

Updated_By varchar(20)

);

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);

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 from course_fees

Union

select Course_code from course_fees_history

Exercise-11

```
select distinct(Course_code) From course_fees
select distinct(Base_Fees) From course_fees
select distinct(Special_Fees) From course_fees
select distinct(Special_Fees) From course_fees_history
select distinct(Course_Code) From course_fees_history
select distinct(Base_Fees) From course_fees_history
```

FUNCTIONS (CASE STUDY)

```
create table COURSE_INFO(
COURSE_CODE VARCHAR(10),
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),
PRIMARY KEY(COURSE_CODE)
);
```

```
CREATE TABLE Student_Info(
STUDENT_ID VARCHAR(10),
FIRST_NAME VARCHAR(20),
LAST_NAME VARCHAR(25),
ADDRESS VARCHAR(150),
primary key(STUDENT_ID)
);
```

Exercise-12

```
insert into course_fees values('7',NULL,110,40),
('8',NULL,120,30);
insert into course_fees values('9',300,130,40),
('10',175,150,50)
select min(Base_Fees),max(Base_Fees) From course_fees;
```

Exercise-13

```
update course_fees set Infra_Fees=26.556 where Course_code= 2
update course_fees set Infra_Fees=34.546 where Course_code= 3
update course_fees set Infra_Fees=14.6 where Course_code= 4
update course_fees set Infra_Fees=54.56 where Course_code= 5
update course_fees set Infra_Fees=64.46 where Course_code= 6
update course_fees set Infra_Fees=84.57 where Course_code= 7
update course_fees set Infra_Fees=34.26 where Course_code= 8
update course_fees set Infra_Fees=74.46 where Course_code= 9
update course_fees set Infra_Fees=24.56 where Course_code= 10
update course_fees set Infra_Fees=24.56 where Course_code= 1
select avg(Infra_Fees) from course_fees
```

Exercise-14

```
select datediff(curdate(),COURSE_START_DATE) as days from course_info
```

Exercise-15

```
select concat(COURSE_NAME,COURSE_CODE) AS '<Course Name><Course Code>' FROM course_info
```

Exercise-16

```
select avg(IFNULL(base_fees,0)) AS AVG from course_fees
```

Exercise-17

```
insert into course_info values('c1','eng','grammar','2000-03-04',4,30,'CLR','CLASSROOM'),  
('c2','Python','ds','2010-10-05',6,37,'EL','ELEARNING'),  
('c3','SQL','joins','2022-04-01',7,50,'OF','OFFLINE READING');  
  
select * from course_info  
  
select COURSE_TYPE ,message from course_info;
```

Exercise-18

```
select COURSE_START_DATE,SUM(NO_OF_PARTICIPANTS) AS TOTAL_NO_OF_STUDENTS from  
course_info  
  
GROUP BY COURSE_START_DATE
```

Exercise-19

```
select COURSE_START_DATE,SUM(NO_OF_PARTICIPANTS) AS TOTAL_NO_OF_STUDENTS from  
course_info  
  
where COURSE_TYPE='CLR'  
  
GROUP BY COURSE_START_DATE
```

Exercise-20

```
select COURSE_START_DATE,SUM(NO_OF_PARTICIPANTS) AS TOTAL_NO_OF_STUDENTS from  
course_info  
  
where COURSE_TYPE='CLR'  
  
GROUP BY COURSE_START_DATE  
  
having TOTAL_NO_OF_STUDENTS>10
```

Exercise-21

```
select COURSE_NAME from course_info  
order by COURSE_DURATION Desc
```

Exercise-22

```
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_DESCRIPTION  
From course_fees Inner join course_info  
on course_fees.Course_code=course_info.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

```
use handson;

select * from course_info;

insert into course_info
Values
('c4','ML','coding','2021-09-09','56','12','CLR','CLASSROOM'),
('c5','DL','coding','2021-05-09','5','18','EL','ELEARNING');

select * from course_fees;

insert into course_fees
values
('11','250','800','87','69.987'),
('12','450','963','54','30.987');

select * from student_info;

insert into student_info
values
('23','SACHIN','SAINI','HARYANA','17'),
('35','RAM','SHARMA','HARYANA','18');

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

```
use handson;

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;
```