

--Gurunath Deshmukh

--Exercise 1

```
create table trainer_info
(
trainer_id number(20) not null,
salutation varchar2(7),

trainer_name varchar2(30),
trainer_location varchar2(30),
trainer_track varchar2(15),
trainer_qualification varchar2(100),
trainer_experience number(11),
trainer_email varchar2(100),
trainer_password varchar2(20),
constraint trainer_info primary key
(
trainer_id
)
enable
);
```

```
create table batch_info
(
batch_id varchar2(20) not null,
batch_owner varchar2(30),
batch_bu_name varchar2(30),
constraint batch_info primary key
(
batch_id
)
enable
);
```

```
create table module_info
(
module_id varchar2(20) not null,
module_name varchar2(40),
module_duration number(11),
constraint module_info primary key
(
module_id
)
enable
);
```

```
create table associate_info
(
  associate_id varchar2(20) not null,
  salutation varchar2(7),
  associate_name varchar(30),
  associate_location varchar2(30),
  associate_track varchar2(15),
  associate_qualification varchar2(200),
  associate_email varchar2(100),
  associate_password varchar2(20),
  constraint associate_info primary key
  (
    associate_id
  )
  enable
);
```

```
create table questions(
  question_id varchar2(20) not null,
  module_id varchar2(20) ,
  question_text varchar2(900),
  primary key (question_id),
  foreign key (module_id)
  references module_info(module_id)
  enable
);
```

```
create table associate_status
(
  associate_id varchar2(20),
  module_id varchar2(20),
  start_date varchar2(20),
  end_date varchar2(20),
  afeedbackgiven varchar2(20),
  tfeedbackgiven varchar2(20),
  foreign key(associate_id) references associate_info(associate_id),
  foreign key(module_id) references module_info(module_id)
);
```

```
create table trainer_feedback (
  trainer_id varchar2(20),
  question_id varchar2(20),
  batch_id varchar2(20),
  module_id varchar2(20),
  trainer_rating number(11),
```

```

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)
);

```

```

alter table trainer_info modify trainer_id varchar2(20);

```

--Exercise 2

```

insert into trainer_info values ('f001','mr.','pankaj ghosh','pune','java','bachelor of
technology',12,'pankaj.ghosh@alliance.com','fac1@123');
insert into trainer_info values('f002','mr.','sanjay radhakrishnan','bangalore','dotnet','bachelor
of technology',12,'sanjay.radhakrishnan@alliance.com','fac2@123');
insert into trainer_info values('f003','mr.','vijay mathur','chennai','mainframe','bachelor of
technology',10,'vijay.mathur@alliance.com','fac3@123');
insert into trainer_info values('f004','mrs.','nandini nair','kolkata','java','master of computer
applications',9,'nandini.nair@alliance.com','fac4@123');
insert into trainer_info values('f005','miss.','anitha parekh','hyderabad','testing','master of
computer applications',6,'anitha.parekh@alliance.com','fac5@123');
insert into trainer_info values('f006','mr.','manoj agrawal','mumbai','mainframe','bachelor of
technology',9,'manoj.agrawal@alliance.com','fac6@123');
insert into trainer_info values ('f007','ms.','meena kulkarni','coimbatore','testing','bachelor of
technology',5,'meena.kulkarni@alliance.com','fac7@123');
insert into trainer_info values('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');
insert into batch_info values('b002','mrs.aruna k','healthcare');
insert into batch_info values('b003','mr.rajesh krishnan','life sciences');
insert into batch_info values('b004','mr.sachin shetty','bfs');
insert into batch_info values('b005','mr.ramesh patel','communications');
insert into batch_info values('b006','mrs.susan cherian','retail and hospitality');
insert into batch_info values('b007','mrs.sampada jain','msp');
insert into batch_info values('b008','mrs.kavita rege','bpo');
insert into batch_info values('b009','mr.ravi sejal','msp');

```

```

insert into module_info values('o10sql','oracle 10g sql',16);
insert into module_info values('o10plsql','oracle 10g pl/ sql',16);
insert into module_info values('j2se','core java se 1.6',288);
insert into module_info values('j2ee','advanced java ee 1.6',80);
insert into module_info values('javafx','javafx 2.1',80);
insert into module_info values('dotnt4','.net framework 4.0',50);
insert into module_info values('sql2008','ms sql server 2008',120);
insert into module_info values('msbi08','ms bi studio 2008',158);
insert into module_info values('shrpt','ms share point',80);
insert into module_info values('andrd4','android 4.0',200);

```

```

insert into module_info values('em001','instructor',0);
insert into module_info values('em002','course material',0);
insert into module_info values('em003','learning effectiveness',0);
insert into module_info values('em004','environment',0);
insert into module_info values('em005','job impact',0);
insert into module_info values('tm001','attendees',0);
insert into module_info values('tm002','course material',0);
insert into module_info values('tm003','environment',0);

```

```

insert into associate_info values('a001','miss.','gayathri narayanan','gurgaon','java','bachelor of technology','gayathri.narayanan@hp.com','tne1@123');
insert into associate_info values('a002','mrs.','radhika mohan','kerala','java','bachelor of engineering in information technology','radhika.mohan@cognizant.com','tne2@123');
insert into associate_info values('a003','mr.','kishore srinivas','chennai','java','bachelor of engineering in computers','kishore.srinivas@ibm.com','tne3@123');
insert into associate_info values('a004','mr.','anand rangathan','mumbai','dotnet','master of computer applications','anand.ranganathan@finolex.com','tne4@123');
insert into associate_info values('a005','miss.','leela menon','kerala','mainframe','bachelor of engineering in information technology','leela.menon@microsoft.com','tne5@123');
insert into associate_info values('a006','mrs.','arti krishnan','pune','testing','master of computer applications','arti.krishnan@cognizant.com','tne6@123');
insert into associate_info values('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');
insert into questions values('q002','em001','all the topics in a particular course handled by the trainer without any gaps or slippages');
insert into questions values('q003','em002','the course materials presentation, handson, etc. referred during the training are relevant and useful. ');
insert into questions values('q004','em002','the hands on session adequate enough to grasp the understanding of the topic. ');
insert into questions values('q005','em002','the reference materials suggested for each module are adequate. ');
insert into questions values('q006','em003','knowledge and skills presented in this training are applicable at your work');
insert into questions values('q007','em003','this training increases my proficiency level');
insert into questions values('q008','em004','the physical environment e.g. classroom space, air-conditioning was conducive to learning. ');
insert into questions values('q009','em004','the software/hardware environment provided was sufficient for the purpose of the training. ');
insert into questions values('q010','em005','this training will improve your job performance. ');
insert into questions values('q011','em005','this training align with the business priorities and goals. ');

```

```

insert into questions values('q012','tm001','participants were receptive and had attitude
towards learning.');
```

```

insert into questions values('q013','tm001','all participats gained the knowledge and the
practical skills after this training.');
```

```

insert into questions values('q014','tm002','the course materials presentation, handson, etc.
available for the session covers the entire objectives of the course.');
```

```

insert into questions values('q015','tm002','complexity of the course is adequate for the
particpate level.');
```

```

insert into questions values('q016','tm002','case study and practical demos helpful in
understanding of the topic');
```

```

insert into questions values('q017','tm003','the physical environment e.g. classroom space,
air-conditioning was conducive to learning.');
```

```

insert into questions values('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');
insert into associate_status values('a002','o10sql','b001','f001','2000-12-15','2000-12-25');
insert into associate_status values('a003','o10sql','b001','f001','2000-12-15','2000-12-25');
insert into associate_status values('a001','o10plsql','b002','f002','2001-2-1','2001-2-12');
insert into associate_status values('a002','o10plsql','b002','f002','2001-2-1','2001-2-12');
insert into associate_status values('a003','o10plsql','b002','f002','2001-2-1','2001-2-12');
insert into associate_status values('a001','j2se','b003','f003','2002-8-20','2002-10-25');
insert into associate_status values('a002','j2se','b003','f003','2002-8-20','2002-10-25');
insert into associate_status values('a001','j2ee','b004','f004','2005-12-1','2005-12-25');
insert into associate_status values('a002','j2ee','b004','f004','2005-12-1','2005-12-25');
insert into associate_status values('a003','j2ee','b004','f004','2005-12-1','2005-12-25');
insert into associate_status values('a004','j2ee','b004','f004','2005-12-1','2005-12-25');
insert into associate_status values('a005','javafx','b005','f006','2005-12-4','2005-12-20');
insert into associate_status values('a006','javafx','b005','f006','2005-12-4','2005-12-20');
insert into associate_status values('a006','sql2008','b006','f007','2007-6-21','2007-6-28');
insert into associate_status values('a007','sql2008','b006','f007','2007-6-21','2007-6-28');
insert into associate_status values('a002','msbi08','b007','f006','2009-6-26','2009-6-29');
insert into associate_status values('a003','msbi08','b007','f006','2009-6-26','2009-6-29');
insert into associate_status values('a004','msbi08','b007','f006','2009-6-26','2009-6-29');
insert into associate_status values('a002','andrd4','b008','f005','2010-6-5','2010-6-28');
insert into associate_status values('a005','andrd4','b008','f005','2010-6-5','2010-6-28');
insert into associate_status values('a003','andrd4','b009','f005','2011-8-1','2011-8-20');
insert into associate_status values('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';
```

--Exercise 5

```
select * from (  
select * from trainer_info order by trainer_experience desc  
) where rownum<=5;
```

--Exercise 6

```
set transaction read write ;  
insert into login_details values('u001' , 'admin1@123');  
savepoint my_savepoint  
insert into login_details values('u002' , 'admin2@123');  
rollback to savepoint my_savepoint;
```

--Exercise 7

— doubtful.

```
create user dummy_user identified by "pass";  
grant create table to dummy_user;  
grant select table to dummy_user;  
revoke select table from dummy_user;  
revoke create table from dummy_user;  
drop user dummy_user;
```

--Exercise 8

```
drop table login_details;
```

--Exercise 9

```
create table suppliers(  
supplier_id varchar(20) not null,  
supplier_name varchar2(50) not null,  
adress varchar2(50),  
city varchar2(50),  
state varchar2(25),  
zp_code varchar2(10)  
);
```

-- Operators

--Exercise 10

```
create table course_fees(  
course_code varchar2(10) not null,  
base_fees number(10),  
special_fees number(10),  
discount number(10),  
constraint course_fees primary key  
(  
course_code  
)  
);
```

```
create table course_fees_history(
course_code varchar2(10) primary key references course_fees(course_code) ,
base_fees number(10) ,
special_fees number(10) ,
created_by varchar2(10),
updated_by varchar2(10)
);
```

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

```
insert into course_fees_history values('1',120,123,'ram','ramesh');
insert into course_fees_history values('2',150,110,'bala','ram');
insert into course_fees_history values('3',160,170,'bala','vinu');
insert into course_fees_history values('4',170,235,'ram','ram');
insert into course_fees_history values('5',190,100,'vinod','vinod');
```

```
select course_code from course_fees
union
select course_code from course_fees_history
minus
select course_code from course_fees
intersect
select course_code from course_fees_history;
```

--Exercise 11

```
select course_code,base_fees,special_fees from course_fees
union
select course_code,base_fees,special_fees from course_fees_history
minus
select course_code,base_fees,special_fees from course_fees
intersect
select course_code,base_fees,special_fees from course_fees_history;
```

--Function

```
create table course_info (
course_code varchar(10),
course_name varchar(10) not null,
course_description varchar2(25),
course_start_date date,
course_duration number(10),
no_of_participants number(10),
course_type varchar2(5),
```

```
primary key(course_code)
enable
);
```

```
create table student_info(
student_id varchar(10),
first_name varchar(20),
last_name varchar(25),
address varchar(150),
primary key(student_id)
enable
);
```

--Exercise 12

```
insert into course_fees values('7',null,120,0);
insert into course_fees values('8',null,100,0);
insert into course_fees values('9',300,120,0);
insert into course_fees values('10',175,120,0);
select min(base_fees) ,max(base_fees) from course_fees;
```

--Exercise 14

```
alter table course_fees add infra_fees number(5,3);
update course_fees set infra_fees='45.751' where course_code='1';
update course_fees set infra_fees='43.453' where course_code='2';
update course_fees set infra_fees='47.897' where course_code='3';
update course_fees set infra_fees='51.558' where course_code='4';
update course_fees set infra_fees='46.007' where course_code='5';
update course_fees set infra_fees='50.559' where course_code='10';
update course_fees set infra_fees='45.321' where course_code='7';
update course_fees set infra_fees='46.225' where course_code='8';
update course_fees set infra_fees='50.000' where course_code='9';
```

```
insert into course_info
values('1','phy','physics',to_date('18-01-2022','dd-mm-yyyy'),6,40,'sci');
insert into course_info values('2','bio','biology',to_date('18-02-2022','dd-mm-yyyy'),6,40,'sci');
insert into course_info values('3','mat','maths',to_date('18-01-2022','dd-mm-yyyy'),6,50,'sci');
insert into course_info
values('4','his','physics',to_date('20-01-2022','dd-mm-yyyy'),6,20,'sco');
select*from course_info;
select course_name,floor(course_start_date-sysdate) as datediff from course_info where
course_code = '2';
```

--Exercise 13

```
select avg(infra_fees) from course_fees;
```

--Exercise 15


```
select course_name||' '||course_code as "<course name> <course code>",course_name
from course_info;
```

--Exercise 16

```
select avg(nvl(base_fees,0)) from course_fees;
```

--Exercise 17

```
insert into course_info
values('5','oops','classroom',to_date('01-02-2022','dd-mm-yyyy'),10,70,'clr');
insert into course_info
values('6','sts','e-learning',to_date('10-03-2022','dd-mm-yyyy'),2,10,'el');
insert into course_info values('7','eng','offline
learning',to_date('01-02-2022','dd-mm-yyyy'),6,30,'of');
```

```
select course_type,course_description as "message" from course_info where
course_type='clr' or course_type='el' or course_type='of';
```

--Exercise 18

```
select course_start_date,sum(no_of_participants) from course_info group by
course_start_date;
```

--Exercise 19

```
select course_start_date,sum(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) from course_info where course_type='clr'
group by course_start_date having sum(no_of_participants)>10;
```

--Exercise 21

```
select * from course_info order by course_duration desc;
```

--Exercise 22

```
insert into course_info values('167','sst','social
studies',to_date('10-03-2022','dd-mm-yyyy'),3,8,'sco');
```

```
create table student_courses(
course_code varchar2(10),
student_id varchar2(10),
foreign key (course_code) references course_info(course_code),
foreign key (student_id) references student_info(student_id)
);
```

```
insert into student_info values ('a1','gurunath','deshmukh','nashik');
insert into student_info values ('b2','devashish','kankanwar','pandharpur');
insert into student_info values ('b3','vaibhav','ingle','pune');
insert into student_info values ('a2','sumeet','karbhari','bidar');
insert into student_info values ('c2','sumeet','joshi','delhi');
```

```

insert into student_courses values('167','a1');
insert into student_courses values('1','a2');
insert into student_courses values('167','b3');
insert into student_courses values('2','b2');
insert into student_courses values('3','a1');
insert into student_courses values('4','c2');
insert into student_courses values('167','b3');
insert into student_courses values('1','a1');

```

```

select si.student_id,si.first_name,si.last_name,sc.course_code
from student_info si inner join student_courses sc
on (si.student_id=sc.student_id) inner join course_info ci on
(sc.course_code=ci.course_code)
where ci.course_code='167';

```

--Exercise 23

```

select*from course_fees;
select*from course_info;

```

```

select ci.course_description,cf.discount
from course_info ci inner join course_fees cf on (ci.course_code=cf.course_code)
where discount>0;

```

--Exercise 24

```

insert into student_info values ('7','aravind','krishna','chennai');

```

```

select si.first_name,sc.course_code from student_info si left join student_courses sc
on(si.student_id=sc.student_id);

```

```

select si.first_name,sc.course_code from student_courses sc right join student_info si
on(sc.student_id=si.student_id);

```

--Exercise 25

```

insert into course_info values
('8','geo','geography',to_date('21-01-2022','dd-mm-yyyy'),3,15,'sco');
insert into course_info values
('9','chm','chemistry',to_date('21-01-2022','dd-mm-yyyy'),6,25,'sci');

```

```

insert into student_info values ('a3','kunal','chauhan','up');
insert into student_info values ('b1','sagar','gaikwad','mumbai');

```

```

insert into student_courses values('8','a3');
insert into student_courses values('9','b1');

```

```

select s.student_id from student_courses s inner join
course_info c on (s.course_code = c.course_code) inner join

```

```
(  
select course_code, base_fees as "fees" from course_fees where base_fees<1500  
)temp on c.course_code = temp.course_code;
```

--Exercise 26

```
select c.course_code,temp.fees,s.student_id,s1.first_name||' '||s1.last_name as "name" from  
student_info s1 inner join student_courses s on (s1.student_id=s.student_id) inner join  
course_info c on (s.course_code = c.course_code) inner join  
(  
select course_code, base_fees as "fees" from course_fees where base_fees<1500  
)temp on c.course_code = temp.course_code ;
```