**CSE 216**

**SET A**

Run the following commands.

Create TABLE EMP

(

employee\_id varchar2(10),

name varchar2(100),

salary number(10,0),

commission\_pct number(10,2),

manager\_id number(4,0),

department\_id number(4,0)

);

insert into emp (employee\_id,name, salary, commission\_pct, manager\_id, department\_id)

select employee\_id,first\_name || ' ' || last\_name, salary, commission\_pct, manager\_id, department\_id from employees;

If you see the data, then there you will find some commission\_pct values are missing.

1. Your first task is to implement a function named ***defaultCommissionPCT*** which takes a manager id as its input and return the default commission\_pct based on following algorithm
   1. If manager id is greater than or equal to 123, then

the default commission\_pct should be .0001 % of the average commission\_pct of all the employees under this manager

* 1. if manager id is between 110 and 122, then

the default commission\_pct should be .012 % of the average commission\_pct of all the employees under this manager

* 1. otherwise

the default commission\_pct should 0.1 (a fixed value)

1. Now implement a procedure named ***changeAll*** which takes no input. The procedure checks commission\_pct of all the employees. If the commission\_pct of an employee is null, then the procedure sets it’s commission\_pct to the default commission\_pct which can be obtained through the ***defaultCommissionPCT*** function using employee’s manager id. On the other hand, if the commission\_pct of an employee is valid, it does nothing. In both of the cases, the procedure shows message indicating whether the commission\_pct is changed or not.
2. Finally, you will have to create a trigger named ***CheckConsistency*** which checks whether, during insertion, any valid commission\_pct is given or not. If any valid commission\_pct isn’t given, then it calculates the default commission\_pct using the ***defaultCommissionPCT*** function provided that the manager id exists in the EMP table. If the manager id is a new one (no such type of manager id exists in the EMP table), then the trigger sets the commission\_pct of this employee to 0.2 (a fixed value).

You can check whether the trigger is working correctly by using the following insertions

insert into EMP (employee\_id, name, salary, commission\_pct, manager\_id, department\_id) values (301, 'Mr A', 22000, 0.25, 122, 90);

insert into EMP (employee\_id, name, salary, manager\_id, department\_id) values (302, 'Mr B',18000, 122, 95);

insert into EMP (employee\_id, name, salary, manager\_id, department\_id) values (303, 'Mr C',7000, 170, 90);