DDL : Data definition Language

CREATE

ALTER

DROP

TRUNCATE

Data types:

Number - integer,number

Character Family - char,varchar,varchar2()

Date family - Date,Timestamp

Number(precision,scale) – number(6,2)

Char – char(6) – Arun,Ragul,Sujany… <=6, 3

Char(1) – M,F,T

Varchar() – varchar(6) - <= 6, 3

Varchar2() – varchar2(6) <= 6

Date – dd-mon-yy

Timestamp –

Username : lab1etrg1@ORCL11G   
Password: lab1eoracle

CREATE TABLE Employee(

Empid number(6) PRIMARY KEY,

Empname varchar2(40),

Empsal number(10,2),

Empdept number(3) REFERENCES DEPT(Deptno)

);

CREATE TABLE DEPT(

Deptno number(3) PRIMARY KEY,

Deptname varchar2(30)

);

See the structure of table : DESC Employee;

INSERT INTO Employee VALUES(100,’Arun Ragul’,70000,10);

INSERT INTO Employee(Empid,Empsal,Empname,Empdept) VALUES(101,60000, ’Ramesh Ragul’,20);

SELECT \* FROM Employee;

SELECT Empid,Empname from Employee;

FJWGHSDO

SELECT \* FROM EMPLOYEE WHERE EMPNAME IN ('Anusha','Ramesh')

SELECT \* FROM EMPLOYEE WHERE EMPNAME LIKE 'A%';

SELECT \* FROM EMPLOYEE WHERE EMPDEPT IS NULL;

SELECT \* FROM EMPLOYEE WHERE EMPDEPT IS NOT NULL;

SELECT DISTINCT EMPID,EMPDEPT FROM EMPLOYEE;

SELECT DISTINCT EMPDEPT FROM EMPLOYEE;

ORDER BY CLAUSE – DISPLAY THE RESULTS in asce or desc

By default the order is ascending

Desc

SELECT EMPname FROM EMPLOYEE ORDER BY EMPNAME ASC;

SELECT EMPname FROM EMPLOYEE ORDER BY EMPNAME DESC;

Conversion Functions:

To\_number - 1,000 – 1000 – to\_number(value,format)

TO\_NUMBER(1,000,9999

To\_char – 10000 – 10,000 – to\_char(value,format)

To\_date – to\_date(value,format); - dd-mon-yy

UPDATE

ALTER

SELECT EMPID,EMPNAME,DEPT.DEPTNO FROM EMPLOYEE CROSS JOIN DEPT;

SELECT EMPID,EMPNAME,DEPT.DEPTNO FROM EMPLOYEE,DEPT;

SQL> SELECT E.EMPID,E.EMPNAME,M.EMPID "MGRID",M.EMPNAME "MGRNAME" FROM EMPLOYEE

E,EMPLOYEE M WHERE E.EMPMGR = M.EMPID;

QL> SELECT E.EMPID,E.EMPNAME,M.EMPID "MGRID",M.EMPNAME "MGRNAME" FROM EMPLOYEE

INNER JOIN EMPLOYEE M ON E.EMPMGR = M.EMPID;

SQL> SELECT E.EMPID,E.EMPNAME,M.EMPID "MGRID",M.EMPNAME "MGRNAME" FROM EMPLOYEE

E,EMPLOYEE M WHERE E.EMPMGR = M.EMPID AND E.EMPSAL > 50000;

QL> SELECT E.EMPID,E.EMPNAME,M.EMPID "MGRID",M.EMPNAME "MGRNAME" FROM EMPLOYEE

INNER JOIN EMPLOYEE M ON E.EMPMGR = M.EMPID WHERE E.EMPSAL > 50000;

PL/SQL

Procedural Language – Structured Query Language

2 major categories:

1. Named PL/SQL Block – Procedure,Function,Trigger,Packages etc…

3 major sections – DECLARE,EXECUTION,EXCEPTION

Exception – Unexpected Error.

DECLARE

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BEGIN

AAAAAAAAAAAAAAA

AAAAAAAAAAAAAAAAAAA

EXCEPTION

aaaaaaaaaaaaaaaaaaaaaaaa

END;

DECLARE

V\_empid employee.empid%type;

V\_empname employee.emname%type;

V\_empsal employee.emsal%type;

BEGIN

Select empid,empname,empsal INTO v\_empid,v\_empname,v\_empsal from employee where empid = 100;

DBMS\_OUTPUT.PUT\_LINE(‘Employee id is :’ || v\_empid );

DBMS\_OUTPUT.PUT\_LINE(‘Employee name is :’ || v\_empname );

DBMS\_OUTPUT.PUT\_LINE(‘Employee salary is :’ || v\_empsal);

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE(‘Something went Wrong’);

END;

DECLARE

V\_empid employee.empid%type;

V\_empname employee.empname%type;

V\_empsal employee.empsal%type;

BEGIN

Select empid,empname,empsal INTO v\_empid,v\_empname,v\_empsal from employee where empid = 100;

DBMS\_OUTPUT.PUT\_LINE('Employee id is :' || v\_empid );

DBMS\_OUTPUT.PUT\_LINE('Employee name is :' || v\_empname );

DBMS\_OUTPUT.PUT\_LINE('Employee salary is :' || v\_empsal);

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Something went Wrong');

END;

DECLARE

v\_empdet employee%ROWTYPE;

BEGIN

Select \* INTO v\_empdet from employee where empid = 100;

DBMS\_OUTPUT.PUT\_LINE('Employee id is :' || v\_empdet.empid );

DBMS\_OUTPUT.PUT\_LINE('Employee name is :' || v\_empdet.empname );

DBMS\_OUTPUT.PUT\_LINE('Employee salary is :' || v\_empdet.empsal);

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Something went Wrong');

END;

DECLARE

V\_COUNTER NUMBER(6):=0;

BEGIN

LOOP

DBMS\_OUTPUT.PUT\_LINE('Counter value is :' || v\_counter);

V\_COUNTER := V\_COUNTER+1;

EXIT WHEN V\_COUNTER >= 10;

END LOOP;

END;

DECLARE

V\_COUNTER NUMBER(6):=0;

BEGIN

FOR v\_loop IN 1..10

LOOP

DBMS\_OUTPUT.PUT\_LINE('Counter value is :' || v\_counter);

V\_COUNTER := V\_COUNTER+1;

/\*EXIT WHEN V\_COUNTER >= 10; \*/

END LOOP;

END;

While loop:

DECLARE

V\_COUNTER NUMBER(6):=0;

BEGIN

WHILE V\_counter <= 10

LOOP

DBMS\_OUTPUT.PUT\_LINE('Counter value is :' || v\_counter);

V\_COUNTER := V\_COUNTER+1;

/\*EXIT WHEN V\_COUNTER >= 10; \*/

END LOOP;

END;

CREATE OR REPLACE PROCEDURE emp\_proc

AS

V\_empid employee.empid%type;

V\_empname employee.emname%type;

V\_empsal employee.emsal%type;

BEGIN

Select empid,empname,empsal INTO v\_empid,v\_empname,v\_empsal from employee where empid = 100;

DBMS\_OUTPUT.PUT\_LINE(‘Employee id is :’ || v\_empid );

DBMS\_OUTPUT.PUT\_LINE(‘Employee name is :’ || v\_empname );

DBMS\_OUTPUT.PUT\_LINE(‘Employee salary is :’ || v\_empsal);

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE(“Something went Wrong”);

END;

Procedure:

CREATE OR REPLACE PROCEDURE emp\_proc

AS

V\_empid employee.empid%type;

V\_empname employee.empname%type;

V\_empsal employee.empsal%type;

BEGIN

Select empid,empname,empsal INTO v\_empid,v\_empname,v\_empsal from employee where empid = 100;

DBMS\_OUTPUT.PUT\_LINE('Employee id is :' || v\_empid);

DBMS\_OUTPUT.PUT\_LINE('Employee name is :' || v\_empname);

DBMS\_OUTPUT.PUT\_LINE('Employee salary is :' || v\_empsal);

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Something went Wrong');

END;

IN , OUT, IN OUT

IN – VALUE coming into the procedure.

OUT – VALUE going outside from the procedure.

INOUT – BOTH coming in and going out.

CREATE OR REPLACE PROCEDURE emp\_proc(p\_empid NUMBER,p\_empname OUT varchar2,p\_empsal OUT NUMBER)

AS

BEGIN

Select empname,empsal INTO p\_empname,p\_empsal from employee where empid = p\_empid;

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Something went Wrong');

END;

/

DECLARE

v\_empname employee.empname%type;

v\_empsal employee.empsal%type;

BEGIN

emp\_proc(100,v\_empname,v\_empsal);

DBMS\_OUTPUT.PUT\_LINE('EMPLOYEE NAME :'|| v\_empname);

DBMS\_OUTPUT.PUT\_LINE('EMPLOYEE SALARY :'|| v\_empsal);

END;

CREATE OR REPLACE PROCEDURE emp\_proc(p\_empdet IN OUT varchar2)

AS

BEGIN

Select empname INTO P\_empdet from employee where empid = p\_empdet;

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Something went Wrong');

END;

DECLARE

v\_empdet varchar2(50);

BEGIN

v\_empdet := '100';

emp\_proc(v\_empdet);

DBMS\_OUTPUT.PUT\_LINE('Employee name is :' || v\_empdet);

END;