**1. Owner,Index Name을 Input 값으로 받아 Index Column을 순서대로**

**List하는 Function을 만들어 보시오. User\_ind\_columns Dictionary 참조**

**예> SCOTT USER 소유 EMP\_IDX1 Index가 COL1,COL2 컬럼으로 구성되어 있다면**

**select f\_name('SCOTT','EMP\_IDX1) from dual;**

**==> COL1,COL2**

**SQL :**

(인덱스 생성 )

CREATE INDEX EMP\_IDX1 ON EMP(EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, DEPTNO);

(함수 생성)

CREATE OR REPLACE FUNCTION F\_COLUMN\_NAME

(PS\_OWNER VARCHAR2, PS\_INDEX\_NAME VARCHAR2)

RETURN VARCHAR2

IS

VS\_COLUMN\_NAME VARCHAR2(1000);

BEGIN

SELECT LISTAGG(COLUMN\_NAME, ', ') WITHIN GROUP (ORDER BY COLUMN\_NAME) INTO VS\_COLUMN\_NAME

FROM DBA\_IND\_COLUMNS

WHERE INDEX\_OWNER = PS\_OWNER

AND INDEX\_NAME = PS\_INDEX\_NAME;

RETURN VS\_COLUMN\_NAME;

END;

**﻿**(조회)

SELECT F\_COLUMN\_NAME('SCOTT','EMP\_IDX1') COLUMN\_NAME FROM DUAL;

**2. Owner,Table Name을 Input 값으로 받아 Column을 순서대로**

**List하는 Function을 만드는데 Column Name 옆에 Data Type 및 Length도 같이**

**List 되도록 만들어 보시오. User\_tab\_columns Dictionary 참조**

   예> **SCOTT USER 소유 EMP Table의 경우**

**EMPNO NUMBER(4),ENAME VARCHAR2(10),JOB  VARCHAR2(9),MGR NUMBER (4),HIREDATE DATE,SAL NUMBER(7,2),COMM  NUMBER(7,2),DEPTNO NUMBER (2)**

**SQL :**

CREATE OR REPLACE FUNCTION F\_NAME\_TYPE\_LENGTH

(PS\_OWNER VARCHAR2, PS\_TABLE\_NAME VARCHAR2)

RETURN VARCHAR2

IS

CURSOR EMP\_CUR

IS

SELECT COLUMN\_NAME, DATA\_TYPE, DATA\_LENGTH

FROM ALL\_TAB\_COLUMNS

WHERE OWNER = PS\_OWNER

AND TABLE\_NAME = PS\_TABLE\_NAME;

VS\_NAME\_TYPE\_LENGTH VARCHAR2(1000);

VS\_COLUMN\_NAME VARCHAR2(100);

VS\_DATA\_TYPE VARCHAR2(100);

VS\_DATA\_LENGTH VARCHAR2(100);

LEN INTEGER;

BEGIN

OPEN EMP\_CUR;

LOOP

FETCH EMP\_CUR INTO VS\_COLUMN\_NAME, VS\_DATA\_TYPE, VS\_DATA\_LENGTH;

EXIT WHEN EMP\_CUR%NOTFOUND;

VS\_NAME\_TYPE\_LENGTH := VS\_NAME\_TYPE\_LENGTH || VS\_COLUMN\_NAME || ' ' || VS\_DATA\_TYPE || '(' || VS\_DATA\_LENGTH || '), ';

END LOOP;

CLOSE EMP\_CUR;

LEN := INSTR(VS\_NAME\_TYPE\_LENGTH, '),',-1);

VS\_NAME\_TYPE\_LENGTH := SUBSTR(VS\_NAME\_TYPE\_LENGTH, 1, LEN);

RETURN VS\_NAME\_TYPE\_LENGTH;

END;

(조회)

SELECT F\_NAME\_TYPE\_LENGTH('SCOTT', 'EMP') FROM DUAL;