Ex.No: 16
Date:

HIGH LEVEL LANGUAGE EXTENSION WITH CURSORS

Program 1

Write a Cursor program using MySQL to retrieve the email-ids(build an email list) of employees from employees table.

SOLUTION :

create table employees(id integer, Name varchar(100), email varchar(100)); insert into employees(id, Name, email) values(1, "Harry Potter", "pharry@warnerbros.com");

insert into employees(id, Name, email) values(2, "Clark Kent", "kclark@dccomics.com");

insert into employees(id, Name, email) values(3, "Tony Stark", "stony@marvel.com");

```
DELIMITER //
CREATE PROCEDURE build_email_list (INOUT email_listvarchar(4000))
BEGIN
DECLARE v_finished INTEGER DEFAULT 0;
DECLARE v_emailvarchar(100) DEFAULT "";

-- declare cursor for employee email

DEClAREemail_cursor CURSOR FOR
SELECT email FROM employees;

-- declare NOT FOUND handler
DECLARE CONTINUE HANDLER FOR
NOT FOUND SET v_finished = 1;
OPEN email_cursor;
get_email: LOOP
FETCH email_cursor INTO v_email;
IF v_finished = 1 THEN
LEAVE get_email;
END IF;

-- build email list
```

```
SET email_list = CONCAT(v_email,";",email_list);
END LOOP get_email;
CLOSE email_cursor;
END //
DELIMITER ;

-- Calling the procedure and getting the email list

SET @email_list = "";
CALL build_email_list(@email_list);
SELECT @email_list;
```

OUTPUT:

```
mysql> DELIMITER $$
mysql> CREATE PROCEDURE build_email_list (INOUT email_list varchar(4000))
    -> BEGIN
    -> DECLARE v_finished INTEGER DEFAULT 0;
    ->    DECLARE v_email varchar(100) DEFAULT "";
    -> DECLARE email_cursor CURSOR FOR
    -> SELECT email FROM employees;
    -> DECLARE CONTINUE HANDLER FOR
    ->    NOT FOUND SET v_finished = 1;
    -> OPEN email_cursor;
    -> get_email:LOOP
    -> FETCH email_cursor INTO v_email;
    -> IF v_finished = 1 THEN
    -> LEAVE get_email;
    -> END IF;
    -> SET email_list = CONCAT(v_email,";",email_list);
    -> END LOOP get_email;
    -> CLOSE email_cursor;
    -> END $$
Query OK, 0 rows affected (0.00 sec)

mysql> DELIMITER ;
mysql> SET @email_list = "";
Query OK, 0 rows affected (0.00 sec)

mysql> CALL build_email_list(@email_list);
Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> select @email_list;
+---------------------------------------------------------------+
| @email_list                                                   |
+---------------------------------------------------------------+
| stony@marvel.com;kclark@deconics.com;pharry@warnerbros.com;   |
+---------------------------------------------------------------+
1 row in set (0.00 sec)
```

RESULT:
stony@marvel.com;kclark@dccomics.com;pharry@warnerbros.com;