

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 employeestable.

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_list varchar(4000))
BEGIN
```

```
DECLARE v_finished INTEGER DEFAULT 0;
DECLARE v_email varchar(100) DEFAULT "";
```

```
-- declare cursor for employee email
```

```
DECLARE email_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;
```

Program :-1

```
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@dccomics.com;pharry@warnerbros.com; |
+-----+
```