



How to accomplish Dynamic Data Masking

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1. Introduction

DBMaker can let user accomplish Dynamic Data Masking using View and UDF(User Define Function). Dynamic Data Masking can avoid user to query sensitive data from database.

2. An example to implement Dynamic Data Masking

2.1 Create table/data

```
create table employee(empid int,firstname varchar(20),lastname varchar(20), email varchar(30));
insert into employee values(1, 'john', 'chen', 'john_chen@syscom.com.tw');
insert into employee values(2, 'marry', 'lee', 'marry_lee@syscom.com.tw');
insert into employee values(3, 'cathy', 'lin', 'cathy_lin@syscom.com.tw');
```

2.2 Create new user

```
grant connect to "user1" "user1";
grant resource to "user1";
```

2.3 Create view with UDF to mask data

```
create view employeev as select
    empid,
    left(firstname,1) || repeat('x',length(firstname)-1) as firstname, repeat('x',length(lastname))
as lastname,
    left(email,1) || repeat('x',locate('@',email,0)-2) || '@' ||
repeat('x',locate('.',email,0)-locate('@',email,0)-1) || right(email,
length(email)-(locate('.',email,0)-1)) as email
from employee;
```

2.4 Grand authority view for user1

```
grant select on employeev to user1;
```

2.5 Select view from user1 to gets masked data

```
connect to dbsample5 user1 user1;
select * from sysadm.employeev;
EMPID      FIRSTNAME      LASTNAME      EMAIL
=== =====
1          jxxx           xxxx          jxxxxxxxx@xxxxxx.com.tw
2          mxxxxx        xxx           mxxxxxxxx@xxxxxx.com.tw
3          cxxxxx        xxx           cxxxxxxxx@xxxxxx.com.tw

3 rows selected
```