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BÀI LÀM

Câu 1: Cho biết thông tin các khách hàng (MaKH, TenKH, SoTien) có NgheNghiep được nhập vào từ thiết bị đầu cuối.

- **Trong suốt phân đoạn (fragmentation transparency)**

```
read(terminal, $NgheNghiep);
select KH.MaKH, KH.TenKH, TKKH.SoTien
into $MaKH, $TenKH, $SoTien
from KhachHang KH, TKKH
where KH.MaKH = TKKH.MaKH and NgheNghiep = $NgheNghiep;
if #FOUND then write(terminal, $MaKH, $TenKH, $SoTien)
else write(terminal, 'NOT FOUND');
```

- **Trong suốt vị trí (location transparency)**

```
read(terminal, $NgheNghiep);
select KH.MaKH, KH.TenKH, TKKH1.SoTien
into $MaKH, $TenKH, $SoTien
from KhachHang1B KH, TKKH1 TKKH
where KH.MaKH = TKKH1.MaKH and NgheNghiep = $NgheNghiep;
if not #FOUND then
```

```
select KH.MaKH, KH.TenKH, TKKH2.SoTien
into $MaKH, $TenKH, $SoTien
from KhachHang2 KH, TKKH2 TKKH
```

```
where KH.MaKH = TKKH2.MaKH and NgheNghiep = $NgheNghiep;
if not #FOUND then
```

```
select KH.MaKH, TenKH, SoTien
into $MaKH, $TenKH, $SoTien
from KhachHang3A KH, TKKH3 TKKH
where KH.MaKH = TKKH3.MaKH and NgheNghiep = $NgheNghiep;
if #FOUND then write(terminal, $MaKH, $TenKH, $SoTien)
else write(terminal, 'NOT FOUND');
```

- **Trong suốt ánh xạ địa phương (local mapping transparency)**

Ta có:

Site 1A: ChiNhanh1, TaiKhoan1, TKKH1, KhachHang1A, LoaiTaiKhoan
Site 1B: ChiNhanh1, TaiKhoan1, TKKH1, KhachHang1B, LoaiTaiKhoan
Site 3: ChiNhanh3, TaiKhoan3, TKKH3, KhachHang3A, KhachHang3B, LoaiTaiKhoan
Site 2, 4: ChiNhanh2, TaiKhoan2, TKKH2, KhachHang2, LoaiTaiKhoan

```
read(terminal, $NgheNghiep);
select KH.MaKH, KH.TenKH, TKKH.SoTien
into $MaKH, $TenKH, $SoTien
from KhachHang1B KH at Site 1B , TKKH1 TKKH at Site 1B
where KH.MaKH = TKKH.MaKH and NgheNghiep = $NgheNghiep;
if not #FOUND then
```

```
select KH.MaKH, KH.TenKH, TKKH.SoTien
into $MaKH, $TenKH, $SoTien
from KhachHang2 KH at Site 2, TKKH2 TKKH at Site 2
where KH.MaKH = TKKH.MaKH and NgheNghiep = $NgheNghiep;
if not #FOUND then
```

```
select KH.MaKH, TenKH, SoTien
into $MaKH, $TenKH, $SoTien
from KhachHang3A KH at Site 3, TKKH3 TKKH at Site 3
where KH.MaKH = TKKH.MaKH and NgheNghiep = $NgheNghiep;
if #FOUND then write(terminal, $MaKH, $TenKH, $SoTien)
else write(terminal, 'NOT FOUND');
```

Câu 2: Nhập vào mã khách hàng (MaKH), kiểm tra xem nếu khách hàng không thuộc chi nhánh tại Hà Nội thì: Viết câu truy vấn chuyển đổi toàn bộ thông tin khách hàng này ra chi nhánh Hà Nội.

- Trong suốt phân đoạn (fragmentation transparency)

```
read (terminal, $MaKH));
select MaCN into $MaCN
from ChiNhanh
where ThanhPho = 'HN';
if #FOUND then
begin
    select TenKH, NgaySinh, DiaChi, NgheNghiep, NoiCongTac, DienThoai, CMND
    into $TenKH, $NgaySinh, $DiaChi, $NgheNghiep, $NoiCongTac, $DienThoai, $CMND
    from KhachHang
    where MaKH = $MaKH and MaCN = $MaCN;
    if not #FOUND
    begin
        update KhachHang
        set MaCN = $MaCN
        where MaKH = $MaKH;
```

```
end;  
end;
```

- **Trong suốt vị trí (location transparency)**

```
read (terminal, $MaKH);  
select TenKH, DiaChi, CMND into $TenKH, $DiaChi, $CMND  
from KhachHang1A  
where MaKH = $MaKH;  
if #FOUND then  
begin  
    select NgaySinh, NgheNghiep, NoiCongTac, DienThoai  
    into $NgaySinh, $NgheNghiep, $NoiCongTac, $DienThoai  
    from KhachHang1B  
    where MaKH = $MaKH;  
    insert into KhachHang3A(MaKH, TenKH, NgaySinh, DiaChi, NgheNghiep, NoiCongTac)  
    values ($MaKH, $TenKH, $NgaySinh, $DiaChi, $NgheNghiep, $NoiCongTac);  
    insert into KhachHang3B(MaKH, TenKH, DienThoai, CMND)  
    values ($MaKH, $TenKH, $DienThoai, $CMND);  
    delete from KhachHang1A where MaKH = $MaKH;  
    delete from KhachHang1B where MaKH = $MaKH;  
end  
else  
begin  
    select TenKH, NgaySinh, DiaChi, NgheNghiep, NoiCongTac, DienThoai, CMND  
    into $TenKH, $NgaySinh, $DiaChi, $NgheNghiep, $NoiCongTac, $DienThoai, $CMND  
    from KhachHang2  
    where MaKH = $MaKH;  
    if #FOUND then  
    begin  
        insert into KhachHang3A (MaKH, TenKH, NgaySinh, DiaChi, NgheNghiep,  
NoiCongTac)  
        values ($MaKH, $TenKH, $NgaySinh, $DiaChi, $NgheNghiep, $NoiCongTac);  
        insert into KhachHang3B(MaKH, TenKH, DienThoai, CMND)  
        values ($MaKH, $TenKH, $DienThoai, $CMND);  
        delete from KhachHang2 where MaKH = $MaKH;  
    end;  
end;  
end;
```

- **Trong suốt ánh xạ địa phương (local mapping transparency)**

```
read (terminal, $MaKH);  
select TenKH, DiaChi, CMND into $TenKH, $DiaChi, $CMND  
from KhachHang1A at Site 1A  
where MaKH = $MaKH;  
if #FOUND then
```

```

begin
    select NgaySinh, NgheNghiep, NoiCongTac, DienThoai
    into $NgaySinh, $NgheNghiep, $NoiCongTac, $DienThoai
    from KhachHang1B at Site 1B
    where MaKH = $MaKH;
    insert into KhachHang3A(MaKH, TenKH, NgaySinh, DiaChi, NgheNghiep, NoiCongTac)
at Site 3
    values ($MaKH, $TenKH, $NgaySinh, $DiaChi, $NgheNghiep, $NoiCongTac);
    insert into KhachHang3B(MaKH, TenKH, DienThoai, CMND) at Site 3
    values ($MaKH, $TenKH, $DienThoai, $CMND);
    delete KhachHang1A at Site 1A where MaKH = $MaKH;
    delete KhachHang1B at Site 1B where MaKH = $MaKH;
end

select TenKH, NgaySinh, DiaChi, NgheNghiep, NoiCongTac, DienThoai, CMND
into $TenKH, $NgaySinh, $DiaChi, $NgheNghiep, $NoiCongTac, $DienThoai, $CMND
from KhachHang2 at Site 2
where MaKH = $MaKH;
if #FOUND then
begin
    insert into KhachHang3A(MaKH, TenKH, NgaySinh, DiaChi, NgheNghiep, NoiCongTac)
at Site 3
    values ($MaKH, $TenKH, $NgaySinh, $DiaChi, $NgheNghiep, $NoiCongTac);
    insert into KhachHang3B(MaKH, TenKH, DienThoai, CMND) at Site 3
    values ($MaKH, $TenKH, $DienThoai, $CMND);
    delete from KhachHang2 at Site 2 where MaKH = $MaKH;
    delete from KhachHang2 at Site 4 where MaKH = $MaKH;
end;

```