

# Informix Detective Game – Solution Set

## Informix Detective: Solving the Mystery of the Missing Thinkpad

Following are the clues and solutions that you will need to solve the mystery of the missing Thinkpad.

### Clue Number 1:

Security has confirmed that only employees (i.e. no visitors) left the building with any hardware on the date that the thinkpad went missing.

### **Solution to Clue Number 1:**

- Determine the total number of employees by issuing the following SQL command:  
`select * from <userid>.employee`
- Click on Execute

If done correctly, the resulting employee query will show **140** employees (records).

*Note:*

A) To view the data in a table layout, use the following SQL statement:

**SELECT** employee\_id, first\_name, last\_name, location, manager\_id  
**FROM** employee

B) Use the “Next” menu option to view additional records

C) The count of the # of records is shown along the bottom of the screen after the last record is displayed

D) Use the Modify menu option to re-use the query statement for subsequent queries.

### Clue Number 2:

Security has confirmed that the thinkpad went missing on July 4, 2003. (Hint: Determine the complete list of potential suspects by joining two tables.)

### **Solution to Clue Number 2:**

#### **Part 1:**

- To determine which employees accessed the building on July 4, 2003, you need to join the Employee table and the Security table. Note that BADGE\_NUMBER is the key for the table join and then issue the following SQL command:  
`select * from <userid>.employee as employee, <userid>.security as security  
where employee.badge_number = security.badge_number`
- Click on Execute

If done correctly, the resulting merged EMPLOYEE and SECURITY tables will show the appropriate values for 140 employees (records).

*Note:*

A) To view the data in a table layout, use the following SQL statement:

**SELECT** employee.employee\_id, employee.last\_name, security.badge\_number,  
security.sign\_out\_date  
**FROM** employee, security  
**WHERE** employee.badge\_number = security.badge\_number

## Part 2:

Now you need to determine which employees signed out on July 4, 2003. To do this:

- Revise the above query to also select all employees who signed out on July 4, 2003. The SQL command should be as follows:

```
select * from <userid>.employee as employee, <userid>.security as security
where employee.badge_number = security.badge_number
and security.sign_out_date = '2003-07-04'
```

- Click on Execute

If done correctly, this query will result in **44** suspects.

*Note:*

*A) To view the data in a table layout, use the following SQL statement:*

***SELECT** employee.employee\_id, employee.last\_name, security.badge\_number,  
security.sign\_out\_date*

***FROM** employee, security*

***WHERE** employee.badge\_number = security.badge\_number*

***AND** security.sign\_out\_date = '2003-07-04'*

*B) If you do not play the game immediately after following the “Install the Informix Detective Game Database” instructions, issue **set DBDATE=y4md-** command prior to starting DBAccess. This will set the date format to YYYY-MM-DD.*

## Clue Number 3:

The suspect signed out of the building between 4 p.m. and 7 p.m.

### Solution to Clue Number 3:

- To determine which of the remaining 44 suspects signed out between 4 p.m. and 7 p.m., issue the following SQL command:

```
select * from <userid>.employee as employee, <userid>.security as security
where employee.badge_number = security.badge_number
and security.sign_out_date = '2003-07-04'
and security.sign_out_time between '16:00:00' and '19:00:00'
```

- Click on Execute

If done correctly, this query will result in **32** suspects.

*A) To view the data in a table layout, use the following SQL statement:*

***SELECT** employee.employee\_id, employee.last\_name, security.badge\_number,  
security.sign\_out\_date*

***FROM** employee, security*

***WHERE** employee.badge\_number = security.badge\_number*

***AND** security.sign\_out\_date = '2003-07-04'*

***AND** security.sign\_out\_time BETWEEN '16:00:00' AND '19:00:00'*

#### Clue Number 4:

Video surveillance tapes show that only males exited the building carrying thinkpad cases between 4 p.m. and 7 p.m. on July 4, 2003

#### **Solution to Clue Number 4:**

- To determine which of the remaining 32 suspects is male, issue the following SQL command:

```
select * from <userid>.employee as employee, <userid>.security as security
where employee.badge_number = security.badge_number
and security.sign_out_date = '2003-07-04'
and security.sign_out_time between '16:00:00' and '19:00:00'
and employee.gender = 'M'
```

- Click on Execute

If done correctly, this query will result in **23** suspects.

*A) To view the data in a table layout, use the following SQL statement:*

```
SELECT employee.employee_id, employee.last_name, security.badge_number,
security.sign_out_date
FROM employee, security
WHERE employee.badge_number = security.badge_number
AND security.sign_out_date = '2003-07-04'
AND security.sign_out_time BETWEEN '16:00:00' AND '19:00:00'
AND employee.gender = 'M'
```

#### Clue Number 5:

The suspect has brown hair.

#### **Solution to Clue Number 5:**

- To determine which of the remaining 23 suspects has brown hair, issue the following SQL command:

```
select * from <userid>.employee as employee, <userid>.security as security
where employee.badge_number = security.badge_number
and security.sign_out_date = '2003-07-04'
and security.sign_out_time between '16:00:00' and '19:00:00'
and employee.gender = 'M'
and employee.hair_colour = 'brown'
```

- Click on Execute

If done correctly, this query will result in **11** suspects.

*A) To view the data in a table layout, use the following SQL statement:*

```
SELECT employee.employee_id, employee.last_name, security.badge_number,
security.sign_out_date
FROM employee, security
WHERE employee.badge_number = security.badge_number
AND security.sign_out_date = '2003-07-04'
AND security.sign_out_time BETWEEN '16:00:00' AND '19:00:00'
AND employee.gender = 'M'
AND employee.hair_colour = 'brown'
```

### Clue Number 6:

The call reporting the missing thinkpad was placed from extension 5555. (Hint: This is not the person who took the missing Thinkpad, but you will need information from the results later in the game.)

### **Solution to Clue Number 6:**

- Issue the following SQL command:  

```
select * from <userid>.employee as employee, <userid>.security as security
where employee.badge_number = security.badge_number
and security.sign_out_date = '2003-07-04'
and security.sign_out_time between '16:00:00' and '19:00:00'
and employee.gender = 'M'
and employee.hair_colour = 'brown'
and employee.extension = '5555'
```
- Click on Execute  
Hint: This clue is a Red Herring. It will not help you find the sole suspect. However, later in the game you will need some of the values from this record. Note that the EMPLOYEE\_ID is 924578.
- Remove the following from the SQL command:  

```
employee.extension = '5555'
```
- The SQL command should now appear as follows:  

```
select * from <userid>.employee as employee, <userid>.security as security
where employee.badge_number = security.badge_number
and security.sign_out_date = '2003-07-04'
and security.sign_out_time between '16:00:00' and '19:00:00'
and employee.gender = 'M'
and employee.hair_colour = 'brown'
```

Hint: User must enter **10** as the answer for this clue.

### Clue Number 7:

A thinkpad with the same serial number as that of the missing machine was found during an inventory audit in room X-2111 which is a restricted access area.

### **Solution to Clue Number 7:**

- To determine which of the remaining suspects has access to restricted access rooms, issue the following SQL command:  

```
select * from <userid>.employee as employee, <userid>.security as security
where employee.badge_number = security.badge_number
and security.sign_out_date = '2003-07-04'
and security.sign_out_time between '16:00:00' and '19:00:00'
and employee.gender = 'M'
and employee.hair_colour = 'brown'
and employee.restricted_access = 'Y'
```
- Click on Execute

If done correctly, this query will result in only 1 remaining suspect: **Marc Ost** (EMPLOYEE\_ID: 924580).

A) To view the data in a table layout, use the following SQL statement:

```
SELECT employee.employee_id, employee.last_name, security.badge_number,
security.sign_out_date
FROM employee, security
WHERE employee.badge_number = security.badge_number
AND security.sign_out_date = '2003-07-04'
AND security.sign_out_time BETWEEN '16:00:00' AND '19:00:00'
AND employee.gender = 'M'
AND employee.hair_colour = 'brown'
AND employee.restricted_access = 'Y'
```

## Closing out the investigation

Marc Ost's manager was contacted. The manager indicated that he had given Marc the Thinkpad to use but had forgotten to update the hardware table to indicate that Marc was the new owner.

Update the hardware table to reflect Marc's ownership of the missing thinkpad.

### **Solution:**

- Delete the SQL command currently in the command field

In order to update the serial number for Marc Ost's machine, we need to get the machine information from the EMPLOYEE table for the employee who owns extension 5555:

- Issue the following SQL command:  

```
select * from <userid>.employee as employee
where employee.extension = '5555'
```
- Click on Execute
- Note that the EMPLOYEE\_ID is 924578.

Now query the HARDWARE table to determine the machine owned by this employee:

- Issue the following SQL command:  

```
select * from <userid>.hardware as hardware
where hardware.employee_id = '924578'
```
- Click on Execute
- Note that this employee owns the machine with HARDWARE\_TN = 6627-425 and HARDWARE\_SN = 74-22265

Now delete this record from the HARDWARE table (because this employee no longer owns any hardware).

- Issue the following SQL command:  

```
delete from <userid>.hardware as hardware
where hardware.employee_id = '924578'
```
- Click on Execute

You can verify that the record was deleted, if you like, by issuing the following SQL command to search for EMPLOYEE\_ID 924578 in the HARDWARE table:

```
select * from <userid>.hardware as hardware
where hardware.employee_id = '924578'
```

Update Marc Ost's hardware information to make him the owner of the thinkpad with type number 6627-425 and serial number 74-22265:

- Issue the following SQL command:  

```
update <userid>.hardware as hardware
set hardware.hardware_tn = '6627-425', hardware.hardware_sn = '74-22265'
where hardware.employee_id = '924580'
```
- Click on Execute

You can verify that the record was updated, if you like, by issuing the following SQL command to search for EMPLOYEE\_ID 924580 in the HARDWARE table:

```
select * from <userid>.hardware as hardware
where hardware.employee_id = '924580'
```

## Informix Detective Game – Tables

