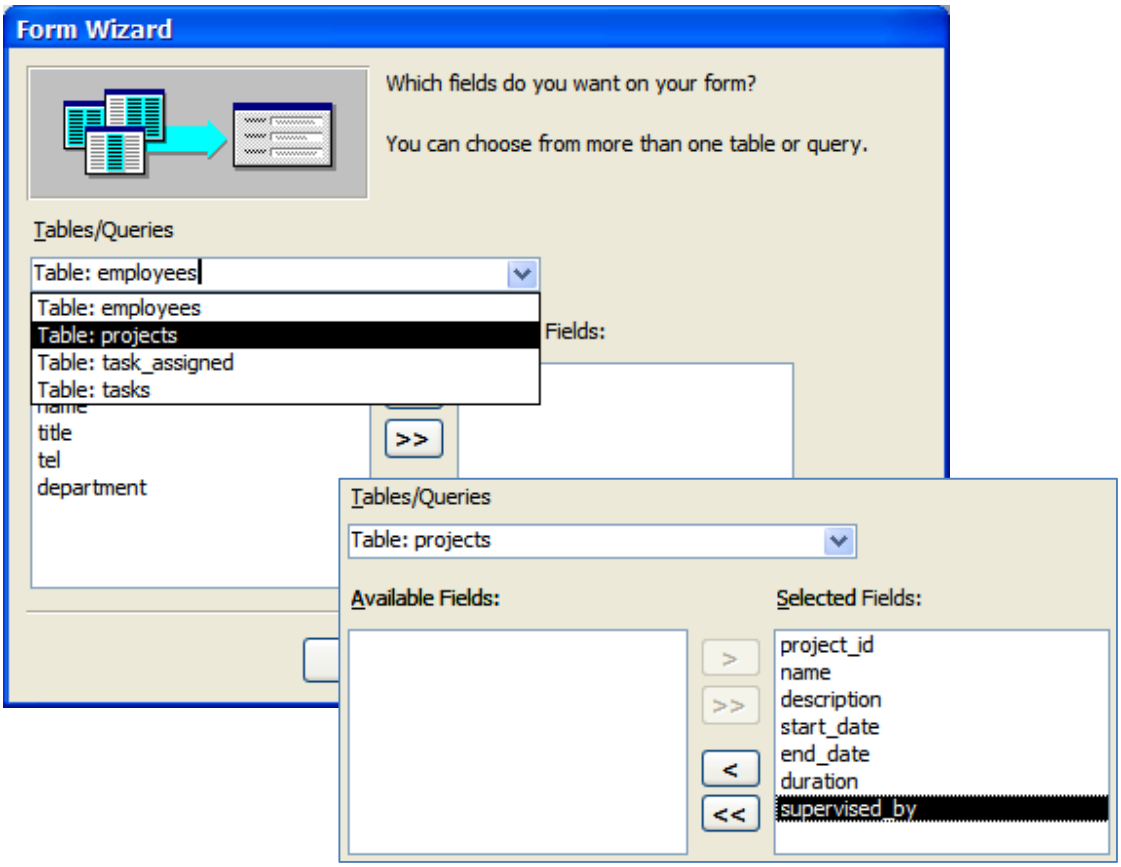
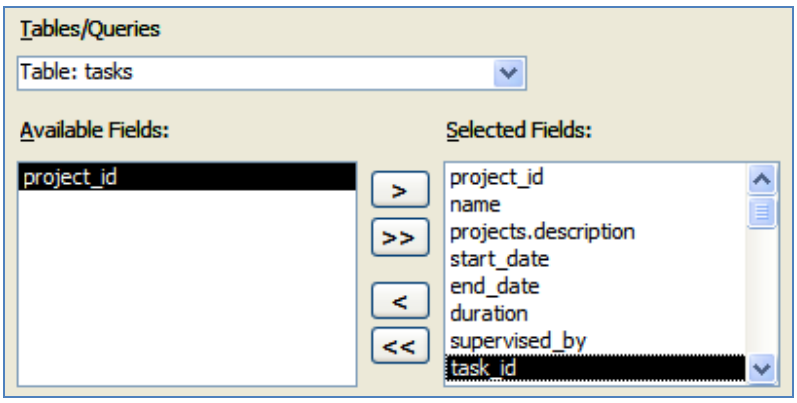
Use the database file `lab-ex.mdb`, the one you created from last session.

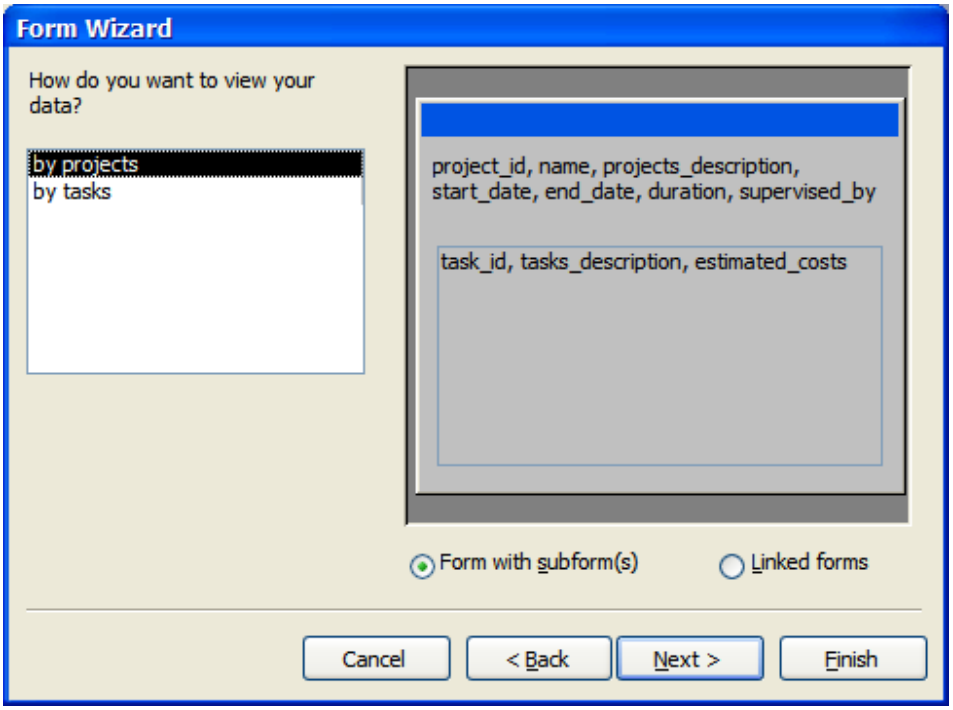
1. To create a form with sub-form. From [Objects] menu, choose [Forms] then double click [Create form by using wizard]. Select [Table: projects] from the list and choose all fields (move them to [Selected Fields:]) that to be used on the form later as below.



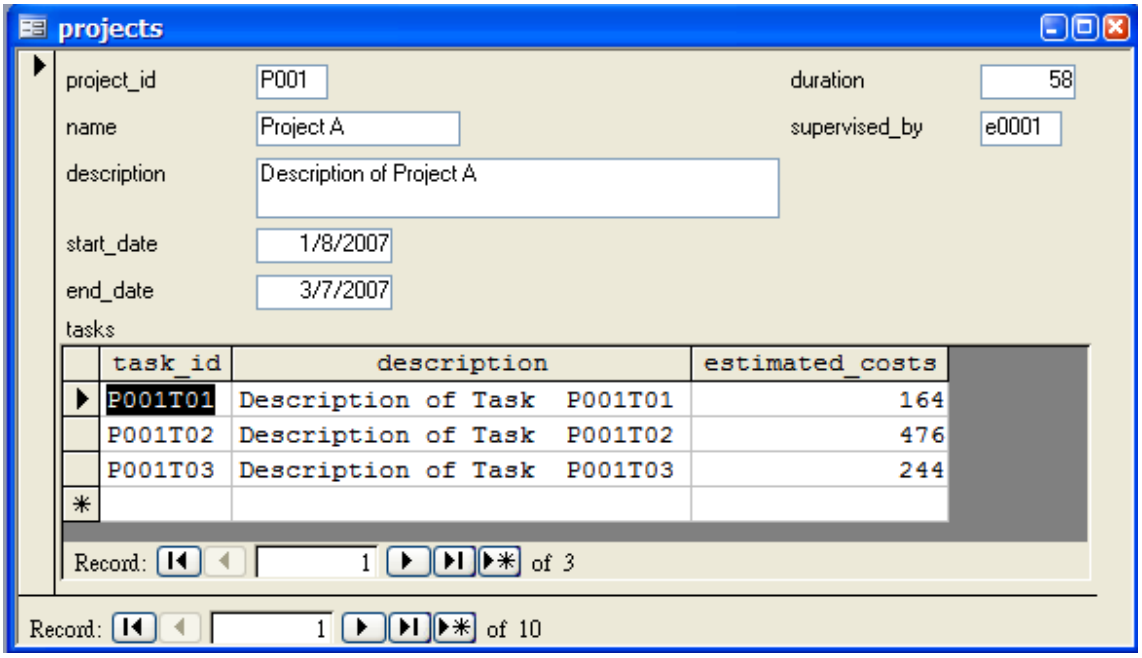
In addition, we add one more table's fields on to the form. The additional table is [tasks]. We will use all fields from that table except the [projectID].



We use [project_id] as the option to view the data through linking the tables: projects and tasks. Here [tasks] is embedded in the sub-form (see following figures).



Simply, we use the [Datasheet] + [Standard] as the design + layout of the form, and then accept the default names set for this form. Finally we should have the following screen.



Try adding one record (task) using this form. Return to [Tables] objects, open [tasks] table check the record that you have just added. What's your finding?

**It is quite similar that when creating a report in Access. We use the same technique [Form + Sub-form] to obtain more information from different tables.*

2. To create a table using SQL in Access.

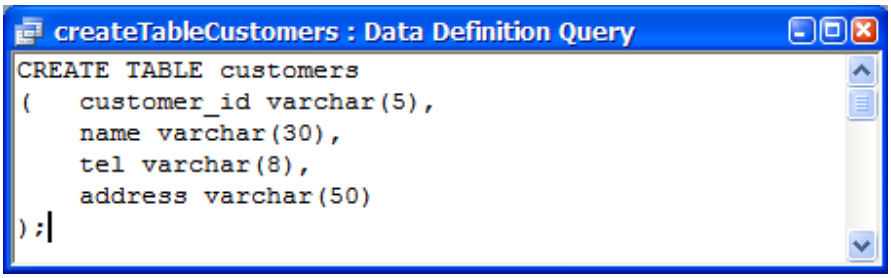
Change [Objects] to [Queries] and double the [Create query in Design view]. Close the [Show Table] window.

Change the Design view to SQL view, click the [SQL] button on the top left hand corner.

Type the following in the SQL box.

```
CREATE TABLE customers
(    customer_id varchar(5),
     name varchar(30),
     tel varchar(8),
     address varchar(50)
);
```

Save this query as [createTableCustomers] and close the SQL window.



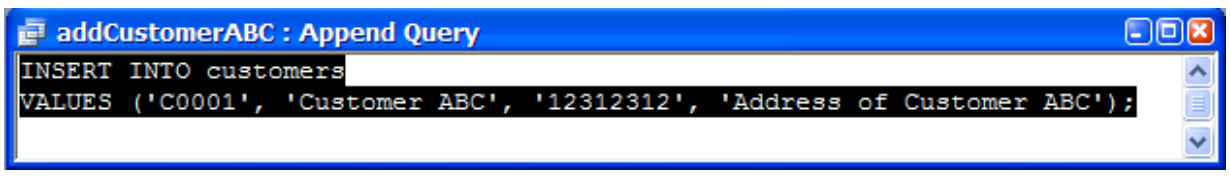
Double click the query, [createTableCustomers], to execute the SQL statement.

Change to [Tables] object, find what have been added in the list?

3. Add records into the table, [Customers].

Use the [Queries] object in Access, new one [query] and use the [SQL] view. Type the following and save it as [addCustomerABC].

```
INSERT INTO customers
VALUES ('C0001', 'Customer ABC', '12312312', 'Address of Customer ABC');
```



Execute this statement to see what happen to the table [Customers].

Repeat this step to add two customers, [XYZ] and [123], i.e. create two more SQL statements:

```
INSERT INTO customers
VALUES ('C0002', 'Customer XYZ', '98765432', 'Address of Customer XYZ');
==
INSERT INTO customers
VALUES ('C0003', 'Customer 123', '44448888', 'Address of Customer 123');
```

4. Modify existing table's – add one column in it.

```
ALTER TABLE projects
ADD customer_id varchar(5);
```

5. Update (edit) some records in table, [projects].

Use the following SQL statements

```
UPDATE projects
SET customer_id = 'C0001'
WHERE
project_id = 'P001' OR
project_id = 'P003' OR
project_id = 'P004' OR
project_id = 'P007' OR
project_id = 'P009';

UPDATE projects SET customer_id = 'C0002'
WHERE
project_id='P005' Or
project_id='P008';

UPDATE projects SET customer_id = 'C0003'
WHERE
project_id='P002' Or
project_id='P006' Or
project_id='P010';
```

6. Query results from two joined tables. Type the following SQL statement and execute it.

```
SELECT customers.name, projects.description, projects.duration
FROM customers
INNER JOIN projects
ON customers.customer_id=projects.customer_id;
```

Try using Access's wizard to perform this query once again and check the differences.