1 Revision Questions

In this tutorial you are to examine some “public databases” and consider what the elements are of each one [e.g. What are the entities, what are their attributes, how might the tables be related to each other?] Given that you might like to exchange views with other students, work in pairs to deal with the three examples, then report back to the tutorial to compare your proposed structures.

The specific websites to examine are:

1. Alibris is a new and second-hand book supplier and agency [i.e. they act on behalf of some other suppliers, as well as for themselves]. The site is at http://www.alibris.com/. For some examples and clues to what the data structures might be, try conducting the following searches:
   - Two International Standard Book Numbers 0471347116 and 0-13-120971-X
   - I want you to find a book by Keith Douglas called [I think] El Alamein to Zem Zem Try for author “Douglas, K” and “Douglas, Keith”. OK, so you’ve found the book, and there’s an option to find “more books like this”, so try that. Hmm, there’s something about “ULTRA” – can you find some books on that?
   - The author I mentioned in last week’s lecture was Deighton, and the book was Spy Story. How does a combined author and title search work?
   - Working in pairs, write down the data structures that you think Alibris is using in its database[s] to support the searches you’ve just conducted, and other functions that the service offers to its clients.

2. Challenges similar to those faced by Alibris can be found in the collection of material offered by Film Australia http://www.filmaustralia.com.au/library/. To highlight the issues of finding visual material, try looking for material about early Melbourne, or for a horse-drawn cab, or for the coal miner’s strike of 1949. Consider the data structures that are used for this material, as well as the challenges faced in implementing the database.

3. Shareware and Freeware often provide useful examples for how you might go about tackling a particular problem. Finding suitable software can be a bit tricky. One site [of many] that addresses this need is http://shareware.com. As with the two earlier examples, write down what data structure[s] you think are used to support the web searching for this site. You might try looking for software to handle a music collection.

2 Using MS Access to Create a Simple Database

Using MS Access to Create a Simple Database
In this exercise we will build on and further develop the simple database that you have created over the last few weeks. Like the other tutorial, this exercise is aimed at encouraging you to explore and learn about MS Access by playing and experimenting.

This week we will introduce queries – a means by which we ask specific questions of the data in our database. Queries can range from the simple to the complex. They can be questions that are asked regularly, or that are asked less frequently, or that might require some user input. Regardless, they represent some information need that is of importance to the user.

We will also look at enhancing our database application by adding navigation controls to move around between the different forms and reports of our database.

Creating a simple query

This week you will create queries against the database you have created and populated. Firstly we will create a simple query using a wizard.

1. Open your MS Access database so the Database window appears. Select ‘Queries’ and then select ‘Create query using wizard’.

2. Select the ‘Ticket’ table from the drop-down list of tables, and then select all the available fields. Navigate through the wizard set up screens and choose ‘Detail’ query layout. Name your form ‘Ticket sales’ and finish the wizard.

3. A datasheet view is generated displaying all the ticket sales in the database. This sheet is sorted on ticket number. You can vary the view by sorting on a different column to add some meaning to the data.

4. Close the datasheet and from the database window select ‘Create query using Design view’.

At the ‘Show Table’ window you can choose which tables you want to include in your query. If you wish you can also query an existing query, or you can choose a combination of tables and queries on which to base your new query.

5. Select your Member table and add it to the query, then select the Ticket table and add that too. Close the ‘Show Table’ window. Notice how your chosen tables appear in the ‘Select Query’ window – they should appear with the relationship showing that you created last week.

6. In the Member table, double click on ‘Member No’ and ‘Member Last Name’. Then repeat this in the ‘Tickets’ table with ‘Ticket No’, ‘Event No’, ‘Event name’ and ‘Ticket Price’. These attributes and their table of origin should appear in the grid below the ‘Select Query’ window. The boxes in the ‘Show’ field should all be ticked.

7. Go to the ‘Event name’ column and in the ‘Criteria’ field, type the name of one of your events in quotation marks e.g. “Spiderbait”. Close the ‘Select Query’ window and save the query as sales for the event you typed as a query e.g. ‘Spiderbait Sales’. Then run the query from the database window. It should show records containing all the attributes you selected but only for the event you specified in the query.

8. Close your query.
1 Revision Questions

In this tutorial you are to examine some “public databases” and consider what the elements are of each one [e.g. What are the entities, what are their attributes, how might the tables be related to each other?] Given that you might like to exchange views with other students, work in pairs to deal with the three examples, then report back to the tutorial to compare your proposed structures.

The specific websites to examine are:

1. Alibris is a new and second-hand book supplier and agency [i.e. they act on behalf of some other suppliers, as well as for themselves]. The site is at http://www.alibris.com/. For some examples and clues to what the data structures might be, try conducting the following searches:

   - Two International Standard Book Numbers 0471347116 and 0-13-120971-X
   - I want you to find a book by Keith Douglas called [I think] El Alamein to Zem Zem Try for author “Douglas, K” and “Douglas, Keith”. OK, so you’ve found the book, and there’s an option to find “more books like this”, so try that. Hmm, there’s something about “ULTRA” – can you find some books on that?
   - The author I mentioned in last week’s lecture was Deighton, and the book was Spy Story. How does a combined author and title search work?
   - Working in pairs, write down the data structures that you think Alibris is using in its database[s] to support the searches you’ve just conducted, and other functions that the service offers to its clients.

2. Challenges similar to those faced by Alibris can be found in the collection of material offered by Film Australia http://www.filmaustralia.com.au/library/ . To highlight the issues of finding visual material, try looking for material about early Melbourne, or for a horse-drawn cab, or for the coal miner’s strike of 1949. Consider the data structures that are used for this material, as well as the challenges faced in implementing the database.

3. Shareware and Freeware often provide useful examples for how you might go about tackling a particular problem. Finding suitable software can be a bit tricky. One site [of many] that addresses this need is http://shareware.com . As with the two earlier examples, write down what data structure[s] you think are used to support the web searching for this site. You might try looking for software to handle a music collection.

2 Using MS Access to Create a Simple Database

Using MS Access to Create a Simple Database
In this exercise we will build on and further develop the simple database that you have created over the last few weeks. Like the other tutorial, this exercise is aimed at encouraging you to explore and learn about MS Access by playing and experimenting.

This week we will introduce queries – a means by which we ask specific questions of the data in our database. Queries can range from the simple to the complex. They can be questions that are asked regularly, or that are asked less frequently, or that might require some user input. Regardless, they represent some information need that is of importance to the user.

We will also look at enhancing our database application by adding navigation controls to move around between the different forms and reports of our database.

**Creating a simple query**

This week you will create queries against the database you have created and populated. Firstly we will create a simple query using a wizard.

1. Open your MS Access database so the Database window appears. Select ‘Queries’ and then select ‘Create query using wizard’.

2. Select the ‘Ticket’ table from the drop-down list of tables, and then select all the available fields. Navigate through the wizard set up screens and choose ‘Detail’ query layout. Name your form ‘Ticket sales’ and finish the wizard.

3. A datasheet view is generated displaying all the ticket sales in the database. This sheet is sorted on ticket number. You can vary the view by sorting on a different column to add some meaning to the data.

4. Close the datasheet and from the database window select ‘Create query using Design view’.

At the ‘Show Table’ window you can choose which tables you want to include in your query. If you wish you can also query an existing query, or you can choose a combination of tables and queries on which to base your new query.

5. Select your Member table and add it to the query, then select the Ticket table and add that too. Close the ‘Show Table’ window. Notice how your chosen tables appear in the ‘Select Query’ window – they should appear with the relationship showing that you created last week.

6. In the Member table, double click on ‘Member No’ and ‘Member Last Name’.

Then repeat this in the ‘Tickets’ table with ‘Ticket No’, ‘Event No’, ‘Event name’ and ‘Ticket Price’. These attributes and their table of origin should appear in the grid below the ‘Select Query’ window. The boxes in the ‘Show’ field should all be ticked.

7. Go to the ‘Event name’ column and in the ‘Criteria’ field, type the name of one of your events in quotation marks e.g. “Spiderbait”. Close the ‘Select Query’ window and save the query as sales for the event you typed as a query e.g. ‘Spiderbait Sales’. Then run the query from the database window. It should show records containing all the attributes you selected but only for the event you specified in the query.

8. Close your query.
IMS1907 – Database Systems
Tutorial Week 5
Some Web sites and data structures they might be using
Introduction to MS Access

1 Revision Questions

In this tutorial you are to examine some “public databases” and consider what the elements are of each one [e.g. What are the entities, what are their attributes, how might the tables be related to each other?] Given that you might like to exchange views with other students, work in pairs to deal with the three examples, then report back to the tutorial to compare your proposed structures.

The specific websites to examine are:

1. Alibris is a new and second-hand book supplier and agency [i.e. they act on behalf of some other suppliers, as well as for themselves]. The site is at http://www.alibris.com/. For some examples and clues to what the data structures might be, try conducting the following searches:
   • Two International Standard Book Numbers 0471347116 and 0-13-120971-X
   • I want you to find a book by Keith Douglas called [I think] *El Alamein to Zem Zem* Try for author “Douglas, K” and “Douglas, Keith”. OK, so you’ve found the book, and there’s an option to find “more books like this”, so try that. Hmm, there’s something about “ULTRA” – can you find some books on that?
   • The author I mentioned in last week’s lecture was Deighton, and the book was *Spy Story*. How does a combined author and title search work?
   • Working in pairs, write down the data structures that you think Alibris is using in its database[s] to support the searches you’ve just conducted, and other functions that the service offers to its clients.

2. Challenges similar to those faced by Alibris can be found in the collection of material offered by Film Australia http://www.filmaustralia.com.au/library/. To highlight the issues of finding visual material, try looking for material about early Melbourne, or for a horse-drawn cab, or for the coal miner’s strike of 1949. Consider the data structures that are used for this material, as well as the challenges faced in implementing the database.

3. Shareware and Freeware often provide useful examples for how you might go about tackling a particular problem. Finding suitable software can be a bit tricky. One site [of many] that addresses this need is http://shareware.com. As with the two earlier examples, write down what data structure[s] you think are used to support the web searching for this site. You might try looking for software to handle a music collection.

2 Using MS Access to Create a Simple Database

Using MS Access to Create a Simple Database
In this exercise we will build on and further develop the simple database that you have created over the last few weeks. Like the other tutorial, this exercise is aimed at encouraging you to explore and learn about MS Access by playing and experimenting.

This week we will introduce queries – a means by which we ask specific questions of the data in our database. Queries can range from the simple to the complex. They can be questions that are asked regularly, or that are asked less frequently, or that might require some user input. Regardless, they represent some information need that is of importance to the user.

We will also look at enhancing our database application by adding navigation controls to move around between the different forms and reports of our database.

Creating a simple query

This week you will create queries against the database you have created and populated. Firstly we will create a simple query using a wizard.

1. Open your MS Access database so the Database window appears. Select ‘Queries’ and then select ‘Create query using wizard’.
2. Select the ‘Ticket’ table from the drop-down list of tables, and then select all the available fields. Navigate through the wizard set up screens and choose ‘Detail’ query layout. Name your form ‘Ticket sales’ and finish the wizard.
3. A datasheet view is generated displaying all the ticket sales in the database. This sheet is sorted on ticket number. You can vary the view by sorting on a different column to add some meaning to the data.
4. Close the datasheet and from the database window select ‘Create query using Design view’.

At the ‘Show Table’ window you can choose which tables you want to include in your query. If you wish you can also query an existing query, or you can choose a combination of tables and queries on which to base your new query.

5. Select your Member table and add it to the query, then select the Ticket table and add that too. Close the ‘Show Table’ window. Notice how your chosen tables appear in the ‘Select Query’ window – they should appear with the relationship showing that you created last week

6. In the Member table, double click on ‘Member No’ and ‘Member Last Name’. Then repeat this in the ‘Tickets’ table with ‘Ticket No’, ‘Event No’, ‘Event name’ and ‘Ticket Price’. These attributes and their table of origin should appear in the grid below the ‘Select Query’ window. The boxes in the ‘Show’ field should all be ticked.

7. Go to the ‘Event name’ column and in the ‘Criteria’ field, type the name of one of your events in quotation marks e.g. “Spiderbait”. Close the ‘Select Query’ window and save the query as sales for the event you typed as a query e.g. ‘Spiderbait Sales’. Then run the query from the database window. It should show records containing all the attributes you selected but only for the event you specified in the query.

8. Close your query.