

CT233

Information Systems

Lab Assignment 1

Due: Thursday 12 February (at lecture)

Given the following relational schema and interpretation with keys underlined:

```
movie(id, title, director, length, year, genre, studio)
actor(name, address, nationality)
acts(movie id, actor name)
studio(name, president, address)
```

Perform the following operations in MS Access:

- Create table MOVIE using the Design View. (Note that for convenience you can use `AutoNumber` as the data type for movie id. Check the Help in MS Access to find out about `AutoNumber`).
- Create the other 3 tables using the appropriate DDL queries. Make sure to specify the required constraints. Double click on query name to run the query (use meaningful query names!). Hand up the DDL query and screen shot of the Design view window making sure that *Field Name* and *Data type* are clearly visible.
- Using a DDL query, add the field (attribute) **language** to the MOVIE table (i.e., the main language used in the film: English, French, German, Irish, etc.). Hand up the DDL query and screen shot of the Design view window making sure that *Field Name* and *Data type* are clearly visible.
- If you have defined your DDL queries correctly and the associated constraints then when you look at your Relationship window the relationships between the tables should be present. Add in any other required relationships. Hand up a screen shot of the Relationship window, making sure all relations, and attributes are clearly visible and that the relationships are clearly visible.
- Populate the tables with some sample data (at least 4-5 movies, 5-7 actors and 2-3 studios). As much as possible try use real data (i.e. from actual movies. You can refer to www.imdb.com and www.amazon.com as a resource for checking movie details. However, there is no need to be overly worried about correct data for actor's address and studio presidents and addresses).
Hand up a screen shot of the datasheet view of the four tables (Hint: You can open about three tables in design view, then choose the Window Tile Vertically menu option. (Minimise main database window).

Important: Recall that foreign keys must be of the same type and from the same domain as the primary key they reference.

Note on Data Types required:

- number (giving double)
- short (giving short integer)
- text
- date
- currency
- autonumber

Hand-Up:

- At the end of class, hand up the required queries and screen shorts, labelled correctly. Reduce the size of screen shots if too large (In Word, click on object and choose Format Object menu option, and choose size).
- Ensure that your name is marked clearly on all pages.
- Late submissions are not accepted unless accompanied by a medical cert.

Using MS Access:

1. Open Access
2. Choose 'Create a new Database' (do not use wizard).
3. Choose name and directory location for database file (Note: It may be a good idea to store all your CT233 files in their own directory).
4. To create tables in Design View, choose the 'Design View' option (again, do not choose wizard option).
 - Enter field (attribute) names and their associated data type. Look at the other options available also.
 - Define the primary key attribute.
 - Save table giving it the associated relation name.
5. To create tables using DDL commands, choose the query object and choose "Design View" (rather than Wizard). Close the "Show Table" window that is displayed and click the SQL pop-down menu option. Type in query and save.
6. To populate tables with data, choose the Tables object and then the DataSheet view.

Notes:

- To make corrections easier for me please use the attribute names that I have used in the above definition.
- We will be using the tables in future labs so take time to enter a sufficient number of records which have some commonalities e.g. same director for 2 movies, same actors in 2 or more movies, same studio for 2 or more studios, etc.