DEPARTMENT OF STATISTICS

**ST207 – DATABASES**

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**WEEK 02 – ACTIVITY 3**

For the scenario described below:

Consider a MOVIE database in which data is recorded about the movie industry. The data requirements are summarised as follows:

- each movie is identified by a title and year of release. Each movie has a length in minutes. Each has a production company and is classified under one or more genres (such as horror, action, drama etc). Each movie has one or more directors and one or more actors (generic term also including actresses) appear in it. Each movie also has a plot outline. Finally, each movie has zero or more quotable quotes, each of which is spoken by a particular actor appearing in the movie.

- actors are identified by name and date of birth and appear in one or more movies. Each actor has a role in the movie.

- directors are also identified by name and date of birth and direct one or more movies. It is possible for a director to act in a movie, including that he/she is directing.

- production companies are identified by a name and an address. Each company produces one or more movies.

1. Build an ER schema showing entities, attributes, cardinalities, and relationships (**optional, if you are comfortable with ER diagram design**).
2. Write SQL commands to:

* create all entities (tables),
* insert (populate) with some data, and
* answer the following questions:
  + list the number of movies for each genre.
  + list the name of actors who have done a lead role in the movies.
  + list the name of directors who have also acted in a movie.
  + list the company details (name and address) of the company that has produced more movies.

You can use the same database tools (SQLite and DB Browser) from Activity 2.