**EER diagram to Relational Mapping steps.**

1. Mapping of strong entity types: Strong entities include
   * Swimmer
   * Team
   * Venue
   * Event
   * Race
   * pool

The simple component attributes for each are then added. This is shown in blue.

1. Mapping of weak entity types: No weak entity types present in the E-ER diagram.
2. Mapping of binary 1:1 relations: no binary 1:1 relations present in the E-ER diagram
3. Mapping of binary 1:N relationships: These include
   * Team Swimmer - Team
   * Race - Pool
   * Race - Event
   * Pool - Venue

The primary keys of the 1 relation are added to relation N as shown in red.

1. Mapping of binary M:N relationships: These relations are as follows
   * Event – Swimmer
   * Race – Swimmer
   * Event – Venue

New relations have been created for the relationships and the primary keys of the relations are foreign keys in the new relation. This is shown in Yellow. The simple attributes have also been added.

1. Mapping of multivalued attributes: No multivalued attributes in the E-ER diagram.
2. Mapping of N-ary relationships: No N-ary relationships.
3. Mapping of specialisation: Specialisation includes
   * Solo Swimmer
   * Team Swimmer

Option 8a. created a superclass Swimmer that contains all common attributes of Solo and team swimmer. Each subclass contains the primary key of Swimmer as a foreign key.

This is shown in green.

1. Mapping of unions: No unions in the E-ER diagram.