

COMPSCI 2DB3  
Assignment 1  
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## Model solution

The following model solution is an in-depth explanation of the ER diagram attached below.

The main entity is **Website**. It has 2 attributes URL(datatype alphanumeric) and name(datatype Text). The key attribute is URL since websites can not have the same URL.

Website has a relationship with events, where users can view the events on the website. Entity **Events** represent each event. Events have attributes name(datatype Text), description(datatype Text), location(datatype Text), eid which is event ID(datatype Integer), end\_date and time(datatype Integer and time stamp for time), start\_date and time(datatype Integer and time stamp for time). Eid is a key attribute since no event can have the same ID.

The entity Events has a subclass since there are 2 types of events - in-person and, virtual. The location of the in-person events can be found in the event entity attribute "location". There is an entity in the subclass called **Virtual** for the virtual events. This entity has 2 attributes: instruction(instructions for the virtual event, datatype Text) and, link(the link for the virtual event, datatype Text).

Events also has a relationship called "series of event" and "in event". Series of event has an entity called **Series** which contains attributes: edition(datatype Integer) and, name(datatype Text). Every event can be part of a series of the event, every series has an edition and name. The "in event" relationship has an entity called **Activities** which is a weak entity because activities can't be held without an event happening. Activities has attributes: Begin\_time(datatype Timestamps), Date(datatype Integer), Duration(datatype Timestamp), ID(datatype Text), ID is a partial key hence it has a dashed underline. Activities has a relationship called "participating in event" which has an entity called **Participants**. Participants has attributes: Name(datatype Text), Biography(A short paragraph about the participant datatype Text) and, ID(datatype Text). ID is a key attribute since participants can not have the same ID. Participants has a relationship called "participant role" which links it to an entity called **Role**.

The main entity website has a relationship called "tracking users" which connects it to entity **Users**. Users has attributes: email(datatype Text), user name(datatype Text), and, password(datatype Text). Both email and username are unique attributes however, username is the key attribute for entity "users". Users has 2 relationships: user rating and user contribution. User rating has an entity called **Rating** with attributes: score(datatype Integer) and, rating date and time(datatype Integer and timestamp). Since users can resubmit rating scores, we only need their latest score hence, we keep track of the date and time of the rating. User contribution has a weak entity **Text Contributions** with attributes: Content(datatype Text), like(datatype Boolean), dislike(datatype boolean), publish date(datatype Integer),q and, ID(datatype Integer).

Attribute ID is a partial key. Text contributions is a weak entity since it cannot exist without the users themselves. Text contribution has a subclass with entities **Long form review, Reactions, and Public messages**. Long-form review and public messages each have attributes: title(datatype Text) and, category(datatype Text).

