

#### #Temporal aspects:

- a member can only register for an upcoming event.
- the facilitator/assistant of an event can be changed before event's time.
- an assistant/a facilitator can be a member of other events and a member can be an assistant/a facilitator of a specific event.
- street info of a venue describes an exact location in the venue.

#### #Consistency across multiple relationship types:

- an event can be changed or cancelled before event's time (ex:changing it's address or it's date).
- legal data (name&birth date) and information(info) of all actors of the DB can't be deleted or modified.
- a venue has fixed data (ex:address and number of rooms) which can't be changed ever.

#### #Integrity rules:

- the year of birth date should be >1940.
- the id of a room should be >0.
- max capacity of a room should be <1500 m.

#### #Behaviour:

- register some assistants and facilitators in the system,then:
- create an event and fix it's time and place (if it's an exclusive-to-business event then create a name of business), then assign a facilitator to the event ,assign an assistant to the event (in case of exclusive-to-business event), then open registration for the people ,(get members' data) ,and start the event.

#### #results of mapping(option 8a):

NOTE:(primary keys are between two double quotations ,foreign keys are between two single quotations)

-person("id",info,first\_name,last\_name,birth\_date,combined\_data,actor type); (all columns of person can't be null)

-member('id','event\_id); ->id is a foreign key for the id of a person ,  
event\_id is a foreign key for the id of an event. (-id- can't be null)

-assistant('id'); ->id is a foreign key for the id of a person. (-id- can't be null)

-facilitator('id',qualification); ->id is a foreign key of a person. (-id- can't be null)

-event("id",'facilitator\_id','venue\_id','room\_id',date\_time,type); ->facilitator\_id is a foreign key for the id of a facilitator,  
venue\_id is a foreign key for the id of a venue, room\_id is a foreign key of a room in a specified venue. (-type- is a not null)

-open-to-public\_event('id'); ->id is a foreign key for the id of an event. (-id- can't be null)

-exclusive-to-business\_event('id','assistant\_id',name\_of\_business); ->id is a foreign key for the id of an event,  
assistant\_id is a foreign key for the id of an assistant. (-id- & -name\_of\_business- can't be null)

-venue("id",number\_of\_rooms,country,city,street\_info); (all columns of venue can't be null)

-room(id,'venue\_id',max\_capacity); ->venue\_id is a foreign key for the id of a venue. (all columns of room can't be null)

Note:all primary keys are auto-increment in Ace DB