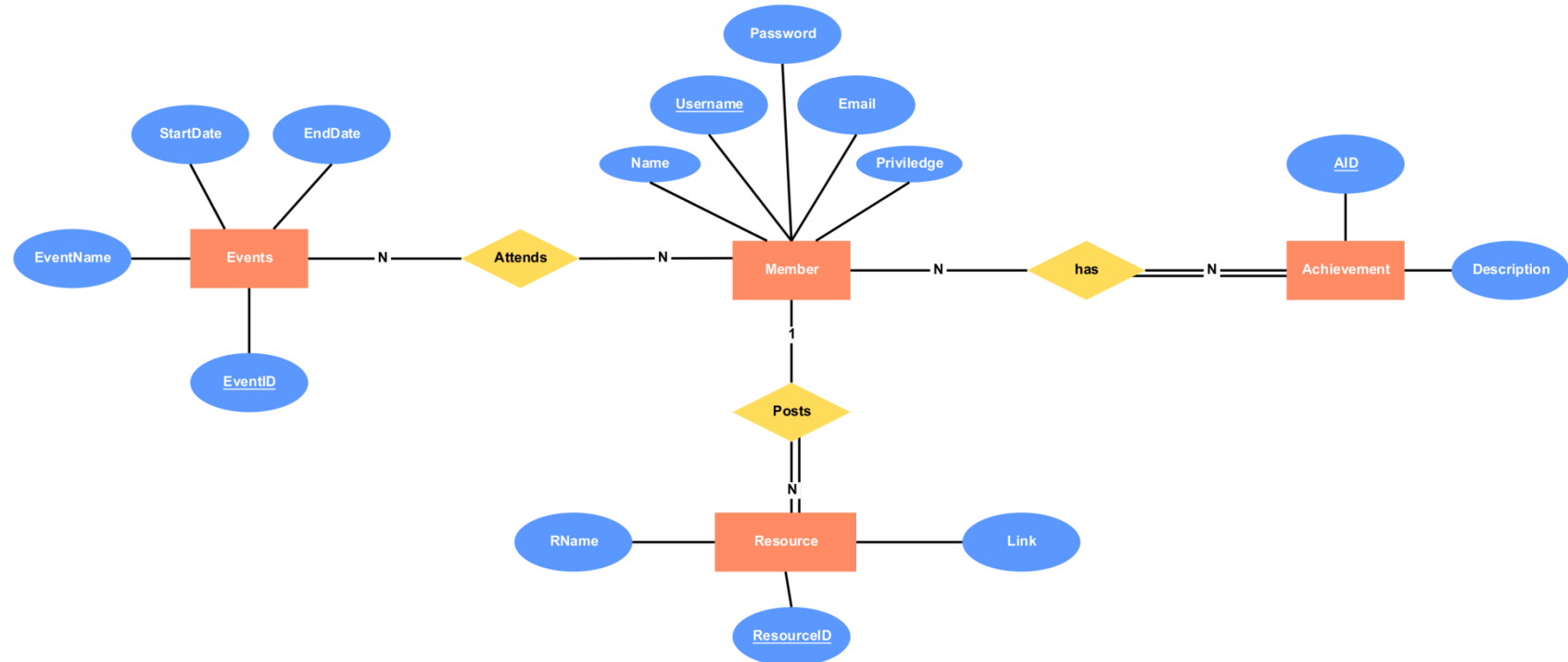# ER Diagram

Club Administration System

Four Entities – Events, Member, Resource, Achievement

Three relations: 1 (Members attend Events), 2 (Members have Achievements), 3 (Members Post Resources)

Relational Schemas

Relational Tables and their constraints:

1) Events(
   EventID INT PrimaryKey AUTO_INCREMENT,
   EventName VARCHAR(40),
   SDate Date,
   EDate Date
)

2) Members(
   Username VARCHAR(250) PrimaryKey,
   Password VARCHAR(30) NotNull,
   Email VARCHAR(80) NotNull,
   Priviledge VARCHAR(10)
)

3) Achievement(
   AID INT PrimaryKey AUTO_INCREMENT,
   Descr TEXT NotNull,

4) Resources(
   ResID INT PrimaryKey AUTO_INCREMENT,
   RName VARCHAR(50) NotNull,
   Link TEXT NotNull,
   PostedBy VARCHAR(250) NotNull
)

5) Attended(
   Username VARCHAR(250),
   EventID INT
)

6) Achieved(
   AID INT,
   Username VARCHAR(250)
)

The relation schemas for Attended and Achieved are to satisfy the relations 1 and 2.

Relation 3 is satisfied by adding a posted by foreign key in the Resource table itself (since it is a total one sided participation).

The other tables are one for each entity.

Constraints on the tables for each individual table are mentioned above.

Other than those, we have foreign key constraints as follows:

Table Resources:

CONSTRAINT FK_ResPostedBy

FOREIGN KEY (PostedBy) REFERENCES Members(Username);

Table Achieved:

CONSTRAINT FK_Achiever

FOREIGN KEY (AID) REFERENCES Achievement(AID);

FOREIGN KEY (Username) REFERENCES Members(Username);

Table Attended:

CONSTRAINT FK_Attended

FOREIGN KEY (EventID) REFERENCES Events(EventID);

FOREIGN KEY (Username) REFERENCES Members(Username);