Requirements of the University Club Memership Database System

A University club membership database stores and keeps track of a club’s members, subunits, committees, events, workshops and budgets of each subunits. Consider the following requirements list:

* The club consists of members. Each member’s name, surname, date of birth, gender, e\_mail address, faculty, department, number of years in the department, phone number (can be more than one), address, status in the club (active member or passive member) should be kept in the system.
* The club has committees. Each committee must have a manager and one of the members may be the manager of a committee. Each committee must have a team of club members.
* The club has subunits. Each subunit must have a manager and one of the members may be the manager of a subunit. Each subunit must consists of a team of club members. Subunits can organize events and workshops.
* Each subunit has its own budget. These budgets are managed by one of the members.
* All members can attend in as many events and can take as much workshops as they want.

Entity Sets:

* MEMBER
* SUBUNIT
* COMMITTEE
* EVENT
* WORKSHOP
* BUDGET

Atributes:

* MEMBER (MemID, Name, Sex, Faculty, Department, Year, Bdate, Phone, Email, Address, State)
* SUBUNIT (SubID, Name, Capacity)
* COMMITTEE (ComID, Name, StartYear)
* EVENT (EvID, Name, StartDate, EndDate, Time)
* WORKSHOP (WID, Name, Type, Tutor, Time, Capacity, StartDate, EndDate)
* BUDGET (BudID, Amount, Type, IssuedDate)

Primary Keys:

* MEMBER: MemID
* SUBUNIT: SubID, Name
* COMMITTEE: ComID, Name
* EVENT: EvID, Name
* WORKSHOP: WID, Name

E/R DIAGRAM

* MANAGES, a 1:1 relationship type between MEMBER and COMMITTEE. MEMBER participation is partial. COMMITTEE participation is total. Users didn’t mention that in their requirements but we found it appropriate to add the StartDate and EndDate attributes to this relationship type.
* HAS A, a 1:N relationship type between MEMBER and COMMITTEE. MEMBER participation is partial. COMMITTEE participation is total as users indicates in requirements list. After consulation with users we decided to add Position attribute to this relationship type.
* MANAGES, a 1:1 relationship type between MEMBER and SUBUNIT. MEMBER participation is partial. SUBUNIT participation is total. We found it appropriate to add the StartDate and EndDate attributes to this relationship type like we did it in MANAGES relationship between MEMBER and COMMITTEE.
* HAS A, a M:N relationship type between MEMBER and SUBUNIT. MEMBER participation is partial. SUBUNIT participation is total.
* ORGANIZES, a M:N relationship type between SUBUNIT and WORKSHOP. SUBUNIT participation is partial. WORKSHOP participation is total.
* TAKES, a M:N relationship type between MEMBER and WORKSHOP. MEMBER and WORKSHOP participations are partial.
* ORGANIZES, a M:N relationship type between SUBUNIT and EVENT. SUBUNIT participation is partial. EVENT participation is total.
* ATTENDS, a M:N relationship type between MEMBER and EVENT. MEMBER and EVENT participations are partial.
* IssuedTo, a 1:N relationship type between SUBUNIT and BUDGET, which is also the identifying relationship for the weak entity type BUDGET. SUBUNIT participation is partial. BUDGET participation is total.
* MANAGES, a 1:N relationship type between MEMBERS and BUDGET, which is also the identifying relationship for the weak entity type BUDGET. MEMBER participation is partial. BUDGET participation is total.