PROJECT 1

Group B Comp 1630

Members

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Sample reports included as supporting documentation

1. Introduction

1.1. This project involves designing a complete database management system to manage Alumni Memberships, Interests, University Clubs, and University events.

1.2. The purpose of the University Database is to maintain data for Alumni of the University in regards to Memberships to University Clubs. Information collected will be University Clubs the Alumni are members of, Membership fees and status, Alumni Interests, and Subject studied. The University will invite Alumni to special events in regards to specific University Club memberships, interests of the Alumni, or their Subject studied.

2. Limitations

2.1. Time Limitation

2.1.1. This is a two-week project and any questions to the instructor must be submitted 4 days before the project due date. We met for several hours the first Saturday after the project was assigned and raised a set of questions. Due to personal work schedules, we didn't have time to meet again before the evening of Friday May 22 which was the deadline for our second set of questions. Unfortunately because of this we did not get a chance to submit our second set of questions before the due date. We could only meet on the Saturday May 23 to have second long meeting.

2.2. Technical Limitation

2.2.1. This project is only a conceptual database design; therefore some assumptions are made about the application running in tandem with this conceptual system. Because of this it is difficult to show some of the functions which need be performed by the application, such as updating the membership status of a stored attribute of MEMBERSHIP_START_DATE (Figure****)

2.2.2. The business rules are not a complete description of all the aspects of such a system, we can only address the requirements referred to in the description

2.2.3. Sample data is only a small representation of the amount of real world data and is limited in its ability to show all scenarios. See section 9

3. Assumptions

3.1. The following Assumptions have been made in regards to this Database

3.2. **ALUMNI -** *section 6.1*

3.2.1. Assume there is a system in place that retrieves the ALUMNI information from the University Registration System automatically when the student graduates.

3.2.2. The system automatically registers Alumni into the General Alumni Club.

3.2.3. Assume each ALUMNI has studied only one subject.

3.3. MEMBERSHIP – *section 6.7*

3.3.1. Assume there is a payment transaction system that records payment date and status (Fee Paid – Yes/No).

3.3.2. Assume there is a system in place to enter the Membership information details and payment information.

3.3.3. The Application updates the flag for Fees Paid (Yes, No) for a particular Club. The flag is defaulted to Yes, as all Alumni a

3.3.4. The Application will update the Status Notification for Membership Status to either Current, Holding, or Former

3.4. **INVITATIONS –** *section 6.9*

3.4.1. The INVITATION sent to the ALUMNI is sent electronically. This email will contain 2 yes / no buttons to allow the invitee to choose to attend the event. The Yes button then links to a payment page that will accept forms of payment including Master Card, Visa, or Paypal. This payment system is linked to the Database and will set the INVITE_FEE_PAID to Yes. Fees must be paid prior to event upon RSVP.

3.4.2. INVITE_ATTENDED is defaulted to No.

3.4.3. Assume there is a system in place for collecting attendance information that registers/checks in guests that attended the Event. This is done online at the Event. Once ALUMNI check in the INVITE_ATTENDED will be set to Yes.

3.5. EVENTS – *section 6.8*

3.5.1. The Application will update the flag for Event fee paid (Yes, No), once payment has been received. The flag is defaulted to No.

3.5.2. The Event Organizer manually enters information for the Event.

4. Process

4.1. To begin we determined what main Entities were required. We determined that the main Entities would be ALUMNI, INTERESTS, CLUBS, and EVENTS.

4.2. We created an Entity Relationship Diagram to determine the relationship between the main Entities.

4.3. The next step was determining the Primary Keys, Foreign Keys, and Attributes for each of the Entities.

4.4. Once the attributes were determined we applied the normalization technique to ensure each table represented a single subject, to ensure there was no redundant data, all attributes in the table were dependent on a Primary Key, and that each table was void of insertion, update, or deletion anomalies.

4.5. To remove the M:N Relationship between the Entities, we implemented bridge Entities to remove any redundancies. These Entities were created to adhere to the requirements of the Business Rules for Events and Memberships. The bridge Entities created are:

4.5.1. ALUMNI_INTEREST to act as a bridge between INTEREST and ALUMNI.

4.5.2. MEMBERSHIP to act as a bridge between ALUMNI, CLUBS, and STATUS.

4.5.3. EVENTS to act as a bridge between ALUMNI and CLUBS

4.5.4. INVITATIONS to act as a bridge between ALUMNI and EVENTS.

4.6. Once all Entities were established, we developed the Entity Relationship Diagrams for each segment.

4.7. Finally we created a final Crow's Foot Entity Relationship Diagram to display all Entities.

5. Defining Business Rules

5.1. During the design process, a key step for us was to identify the business rules. Clarifying these rules identified the main group of entities, and relationships. We discovered it was critical to track membership fee payments, as keeping dues up to date was a top priority. There were also several many to many relationships that needed to be broken down.

5.2. Business Rule Set 1

5.2.1. All Alumni Members who join, become a member of the General Alumni Club

5.2.1.1. All alumni must pay an annual alumni club fee

5.2.1.2. Alumni membership status can be active, holding, or former

5.2.1.3. A membership status is set to Holding if the dues are not paid on the fee due date

5.2.1.4. The fee due date is 1 year after the membership has started

5.2.1.5. If membership dues are not paid within a holding year, that membership status is set to former

5.2.1.6. New Grads are given a year's free membership upon graduation

5.3. Business Rule Set 2

5.3.1. Many alumni belong to many clubs (M,N)

5.3.2. Many clubs have many alumni members (M,N)

5.3.2.1. A club may have no memberships at a given stage (eg, it's a new club)

5.3.2.2. To be a member of the club, the alumni must pay the annual club fee

5.3.2.3. To join a club, the alumni must an Active General Alumni Membership

5.3.2.4. All club fees are fixed, but may differ for each club

5.4. Business Rule Set 3

5.4.1. Many ALUMNIs may have many interests (M,N)

5.4.2. Many interests are shared by many ALUMNIs (M.N)

5.4.2.1. These interests are not related to any club

5.4.2.2. An ALUMNI can have no interests

5.5. Business Rule Set 4

5.5.1. Members may be invited to many events (M,N)

5.5.2. Each event can host many members (M:N)

5.5.3. Clubs can hold many events (1:M)

5.5.4. Each event is held by a club (1:M)

5.5.4.1. Members can attend events, provided they pay the event fee

5.5.4.2. Members are invited based on Subject, Interest, and Location

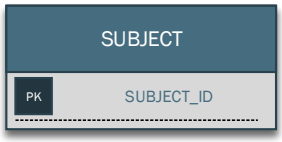
6. Design Details

6.1. ALUMNI - This is the main entity where all the information about an Alumni Member is stored. It's primary key value serves as a main foreign key link to create the relationship between a member, and the members activities and interests within the organization. The use of the status foreign key in this entity, is to track the membership status. *Sample data section - 9.1*

6.1.1. ALUMNI Relational Schema

ALUMNI (**ALUMNI_ID**, SUBJECT_ID, STATUS_ID, ALUMNI_FNAME, ALUMNI_LNAME, ALUMNI_INITIAL, ALUMNI_AREACODE, ALUMNI_PHONENUM, ALUMNI_ADDRESS1, ALUMNI_ADDRESS2, ALUMNI_CITY, ALUMNI_POSTCODE, ALUMNI_PROVINCE, ALUMNI_COUNTRY, ALUMNI_BIRTHDATE, ALUMNI_GRAD_DATE, ALUMNI_EMAIL)

6.2. SUBJECT - This entity was created to avoid data anomalies when tracking what subject each member studied. If there was an attribute in the ALUMNI entity that allowed someone to enter the subject studied, not only would we be storing a value redundantly, this would open us up to creating data anomalies. It is necessary to record the subject studied as per business rule item 5.5.4.2 *sample data section 9.2*



6.2.1. Subject Relational Schema

SUBJECT (**SUBJECT_ID**, SUBJECT_NAME)

6.3. **INTEREST** – The interest entity holds many interests that are shared between many members. As per business rule set 3. These interests are used as information to invite members to events. For example a query can be written to return how many members are interested in chess. *Sample data section - 9.3*

6.3.1. CATEGORY_ID – Used to sort the interest type into a main category

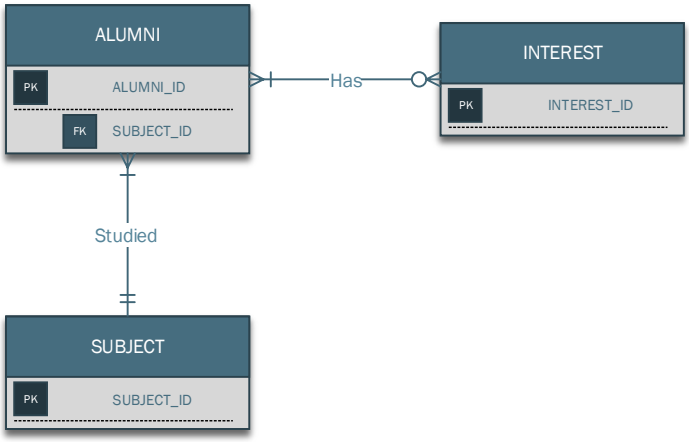
6.3.2. INTEREST_TYPE – The name of the interest.

Example, if the INTEREST_TYPE is Hockey, the CATEGORY_ID will link to an entity occurrence of Sports. This will allow for the generation of reports that allow for populating a table according to a main type, or sub-type.

6.3.3.Subject Relational Schema

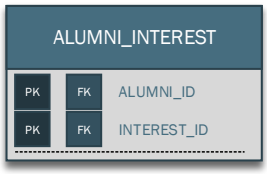
INTEREST (**INTEREST_ID**, CATEGORY_ID, INTEREST_TYPE)

External View of a Members Basic Interests



This ERD contains the M:N relationship between INTEREST and ALUMNI as per business rule set 5.4 Because this view has a M:N relationship, we must create a bridge entity and separate the relationship into two 1:M relationships.

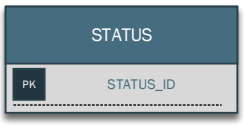
6.4. **ALUMNI_INTEREST -** This entity was created to act as a bridge entity between INTEREST and ALUMNI. The primary key is a composite key of INTEREST_ID and ALUMNI_ID. Since this entity is existence dependent on both Interest, and Alumni a strong identifying relationship is created by using this composite primary key. This entity could also be well suited to using a surrogate key. *Sample data section 9.5*



6.4.1. Subject Relational Schema

ALUMNI_INTEREST (**ALUMNI_ID, INTEREST_ID**)

6.5. STATUS – As per business rule number 5.2.1.2 it is important to track membership status. This entity can be referenced anywhere it is critical to track the Alumni's membership status, without creating data redundancy. *Sample data section 9.4*

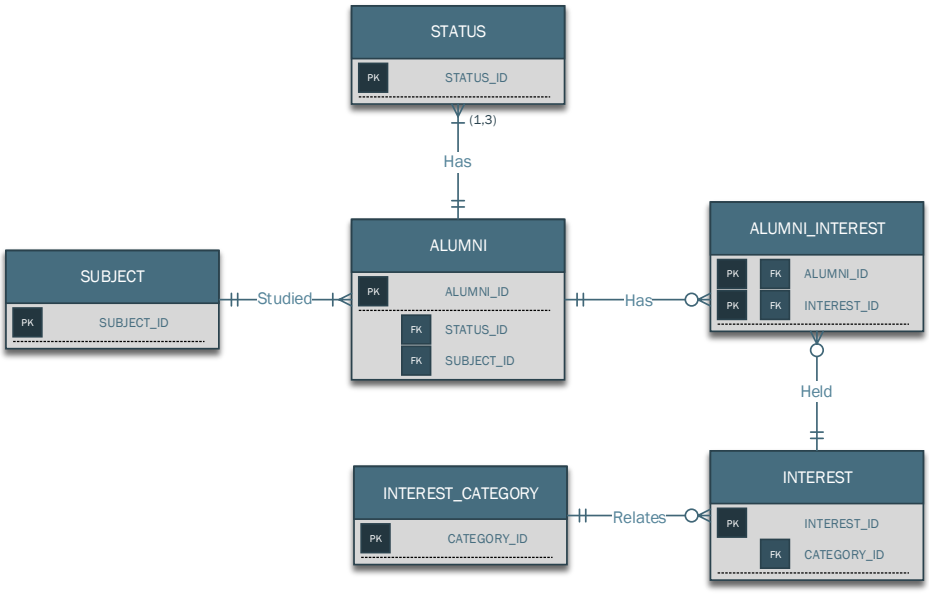


There can only be 3 membership statuses, therefore this entity has a specific cardinality of 1,3. The 3 statuses are 1 = Active, 2 = Holding, 3 Former.

6.5.1. Subject Relational Schema

STATUS (**STATUS_ID**, STATUS_NAME)

Designers View of the Alumni Interests, Study Subject and Current Status



In this view the M:N relationship between ALUMNI and INTEREST is broken down to include our bridge entities as described above. As per business set 5.4 the relationships that have mandatory participation are STATUS and SUBJECT with ALUMNI. This is because it is impossible to have a membership without a status, and an Alumni must have studied a subject. All other participation is optional.

6.6. CLUB – The CLUB entity holds all the clubs that the alumni join. All clubs are members-only clubs. The first record (row) in the CLUB entity (table) is General Alumni Club. All alumni must first join the General Alumni Club in order to be able to join other activity clubs. *Sample data section 9.6*

6.6.1. CLUB_DESCRIPTION - states the details of the club

6.6.2. ALUMNI_ID - the head of club, who must have already paid the club fee. We assume that there is a head for the general alumni club, but in the real world, if there is no club head for any club, we can just set it to NULL.

6.6.3. CLUB_FEE - the amount of money everybody has to pay in order to join the club.

6.6.4. CLUB_EST_DATE: the date that the club is established.

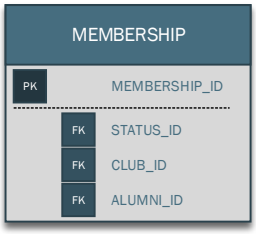
6.6.5. **Club Relational Schema**

CLUB (**CLUB_ID**, CLUB_NAME, CLUB_DESCRIPTION, ALUMNI_ID, CLUB_FEE, CLUB_EST_DATE)

External view of an Alumni members relationship to Clubs

This ERD contains a M:N relationship between ALUMNI and CLUB as per business rule set 5.3 Because this view has a M:N relationship, we must create a bridge entity and separate the relationship into two 1:M relationships.

6.7. **MEMBERSHIP** – The MEMBERSHIP entity is used as a bridge between ALUMNI and CLUB. This entity is used to track the instance of a specific membership for a specific club. All members must have at least a single entry as per business rule number 5.2.1 which states that all members must become members of the General Alumni Club. There for this entity has a mandatory participation with CLUB and ALUMNI. *Sample data section 9.7*



6.7.1. There are assumptions made about how data is populated in each entity occurrence. See section 3.3 Assumptions. As there are many foreign key values in this entity, a surrogate key was chosen for use.

6.7.2. MEM_START_DATE – This date is recorded at the time of fee payment. We can use this date to calculate when the membership status becomes holding or former. We assume that there is a payment transaction system, which will set the MEM_START_DATE in SQL date format YYYY-MM-DD when the MEM_FEE_PAID is true.

6.7.3. STATUS_ID – Tracks the membership status as per section 6.5

6.7.4. MEM_FEE_PAID - The alumni must pay the CLUB_FEE in order to join the club. If they have paid the CLUB_FEE, MEM_FEE_PAID will be true (we assume this is done automatically by the application layer). We can determine whether the person is a valid alumnus by checking the Boolean value of MEM_FEE_PAID attribute for the General Alumni Club that is the first record (row) of CLUB entity

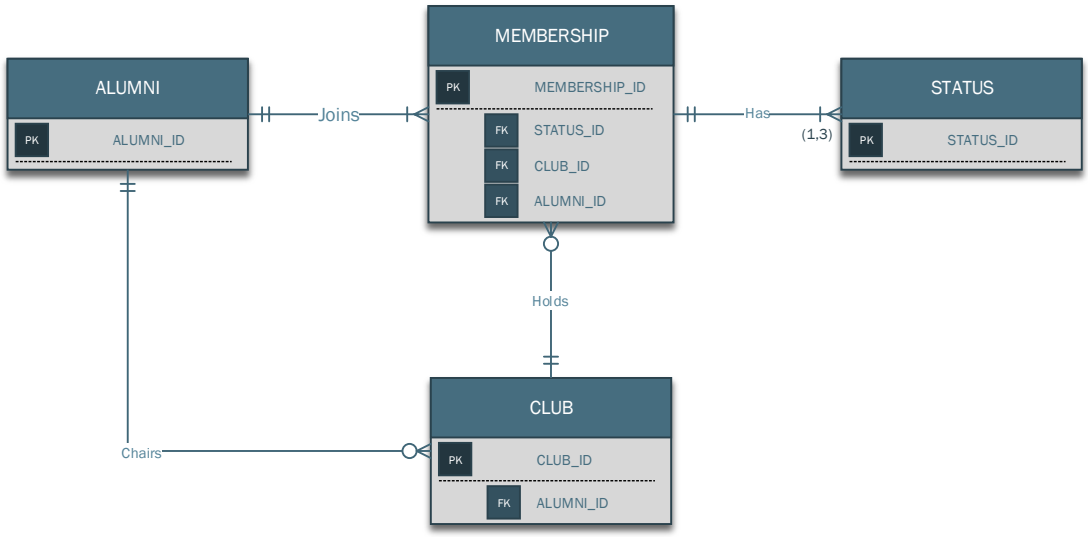
(table). We can also determine whether the person is a valid member of an activity club by checking the corresponding Boolean value of MEM_FEE_PAID.

6.7.5. ALUMNI_ID – This entity was included as an optional relationship, in which an Alumnus can be the chairperson of a club.

6.7.6. MEMBERSHIP RELATIONAL SCHEMA

MEMBERSHIP (**MEMBERSHIP_ID**, STATUS_ID, CLUB_ID, ALUMNI_ID, MEM_START_DATE, MEM_FEE_PAID)

Designers view of the Alumni Club Memberships



This ERD represents business rule set 5.3 although it was not mentioned in the business rules, this design allows for each Alumni to optionally chair multiple clubs. It is also possible for a club to have no members. This will allow for easily setting up a new club entry that does not yet have any memberships.

6.8. **EVENT**- This entity holds all the events, which are held by the clubs. Event is not only held by the activity clubs, but also by the General Alumni Club. One club can host one or many events, and each event is held by one and only one club. Each alumnus may attend many events, and each event hosts one or many alumni. Each event has at least one person who is the ALUMNI_ID. A member must pay the EVENT_FEE and the CLUB_FEE of the event-associated club in order to attend an event. *Sample data section 9.8*

6.8.1. ALUMNI_ID: Event organizer must pay the event fee and the associated club fee in order to join the event. Event organizer must be a valid record stored in the ALUMNI table.

6.8.2. EVENT_NAME - the name of the event

6.8.3. EVENT_LOCATION_NAME - the location where the event is held, such as "Starbucks"

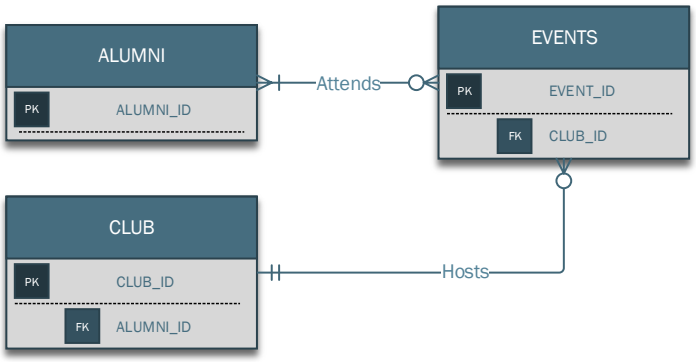
6.8.4. EVENT_FEE - The amount of money alumni needs to pay in order to join the event

6.8.5. EVENT_DETAILS - The details about the event, such as the event descriptions and schedules

6.8.6. **EVENT Relational Schema**

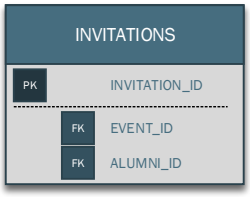
EVENT (**EVENT_ID**, EVENT_ORGANIZER, EVENT_NAME, EVENT_LOCATION_NAME, EVENT_ADDRESS1, EVENT_ADDRESS2, EVENT_CITY, EVENT_PROVINCE, EVENT_COUNTRY, EVENT_START_DATE, EVENT_END_DATE, EVENT_START_TIME, EVENT_END_TIME, EVENT_FEE, EVENT_DETAILS)

External view of how a member relates to events



This ERD contains a single M:N relationship that needs to be reduced to two 1:M relationships. The club entity has an optional relationship with events in the sense that a club may host no events. As per business rule 5.5 The same is true with an Alumni's attendance to an event.

6.9. **INVITATIONS** – This entity acts as the bridge between EVENTS and ALUMNI. It keeps track of invitations sent out to members who meet the criteria as per business rule number 5.5.4.2, and 5.5.4.1 *Sample data section 9.9*



6.9.1. There are assumptions made about how this entity's occurrences are populated as per section 3.4

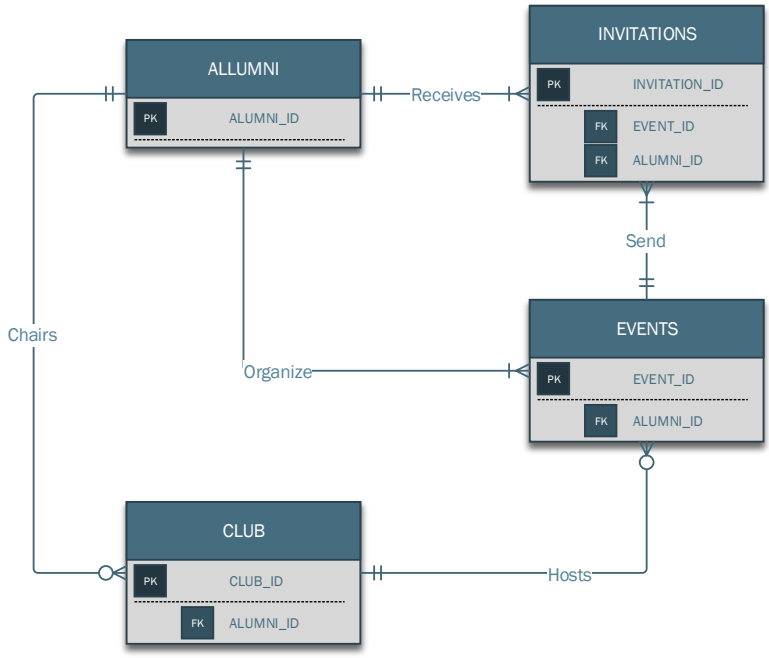
6.9.2. A query can be structured to return suggested invitations as per business rule number 5.5.4.2. A sample report form such a query can be found in under the Sample Reports. A surrogate key was also Chosen for use in this entity due to the complexity of a composite key.

6.9.3. INVITATION_FEE_PAID – A yes / no value that is used to track membership attendance for a specific event.

6.9.4. **INVITATIONS Relational Schema**

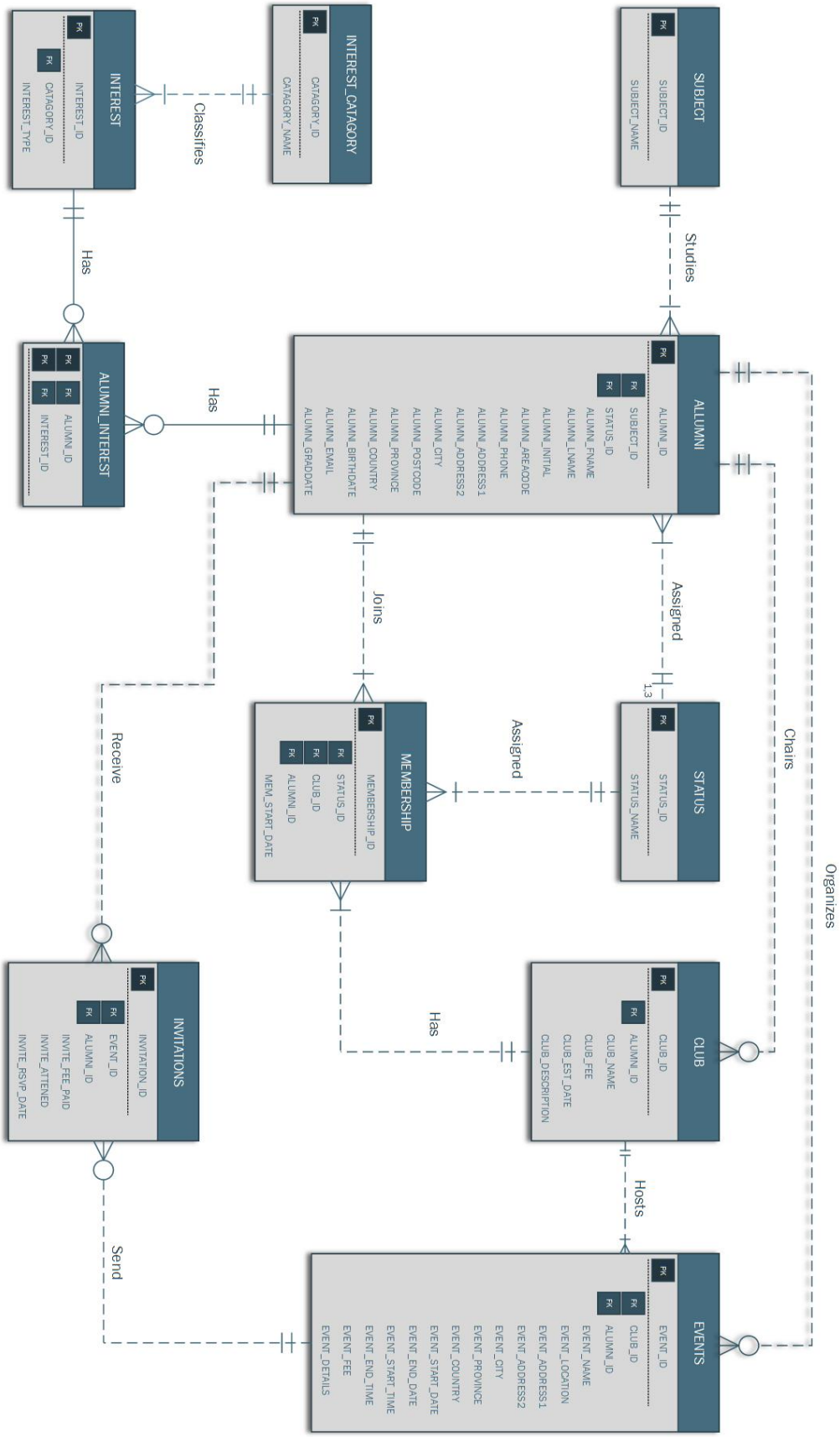
INVITATIONS (INVIATION_ID, EVENT_ID, ALUMNI_ID, INVITATION_FEE_PAID, INVITATION_ATTENDENCE, INVITATION_RSVP_DEADLINE, INVITATION_PAID_DATE

Designers View of the Relationships Between Alumni and Event Invitations



This view incorporates the bridge entity INVITATIONS which has an optional relationship with events and Alumni in the sense that an Event may send out. While not mentioned in the business rules this design allows for an Alumni Member to be the organizer of many events. These are in reference to business rule set 5.5

Complete Designers View of the University Alumni Database System



7. Functional Details

7.1. INVITATIONS

7.1.1. Generate a report based on criteria for an EVENT for the INVITATIONS list to be emailed.

7.1.2. Establish an INVITE_RSVP_DATE, send electronic INVITATIONS to the ALUMNI based on the report obtained.

7.1.3. ALUMNI will then RSVP online, upon accepting the RSVP and will submit the payment.

7.1.4. The INVITE_FEE_PAID flag will be set to Yes.

7.1.5. At the Event, the ALMUNI will be checked in online, then the INVITE_ATTENDED flag will be updated to Yes.

7.2. MEMBERSHIP

7.2.1. ALUMNI are automatically registered into the GENERAL_ALUMNI_CLUB, the MEM_START_DATE will be the graduation date.

7.2.2. The MEM_FEE_PAID will automatically be set to Yes for the 1st year for the General Alumni Club.

7.2.3. The Club memberships are based on the date they paid for and joined the club.

7.2.4. New record will be added for each membership renewal and will have a new start date for the current year of membership.

7.3. Historical Information:

7.3.1. The Application will change the Membership Status to Active if payment is received.

7.3.2. The Application will change the Membership Status to Holding when the Membership Fee becomes due. The Membership Status will be Holding status for 1 year.

7.3.3. The Application will change the Membership Status to Former if membership fees are NOT paid within a year of Membership fee being due.

8. Conclusion/Observations

8.1. In conclusion, we have designed a relational database that is able to track Alumni Interests, Memberships to Clubs, and Events attended.

8.2. Invitations are able to be generated to invite Alumni to various events according to several different criteria's such as Club membership, Interests, Postal Code, Country, Graduation Year, or Subject studied.

8.3. Various reports are able to be generated based on one to multiple criteria(s) to be used for inviting Alumni for Events. Several reports are able to be generated, for example:

- Alumni that have attended Events.
- Active Alumni by Club.
- Alumni that have paid for events, but did not attend.
- Alumni graduated from a specific subject with a specific interest and is a member of a specific club will be invited to an Event.

For example reports refer to the attached material

8.4. This database is ready to be implemented.

9. Sample Data

Each section contains sample date for each entity described in section 6

9.1. ALUMNI – Section 1

ALUMNI_ID	ALUMNI_FNAME	ALUMNI_LNAME	ALUMNI_INITIAL	ALUMNI_AREACODE	ALUMNI_PHONENUM	ALUMNI_ADDRESS1	ALUMNI_ADDRESS2	ALUMNI_CITY
1	David	Stevens	DS	206	555-8700	Suite 333	3455 Bayside North	Seattle
2	Manju	Shah	MS	212	678-3214	Flat 100, Triveni Apartment	Pitam Pura	New Delhi
3	Karen	Saunders	KS	604	299-7120	Suite 908	3453 Nelson Street	Vancouver
4	Mandi	Bruhn	MB	778	659-9274	Apt# 3224	345 Grandview Street	Vancouver
5	John	Kreem	JK	403	990-3242	4532 Country Blvd	Northeast	Calgary
6	Elizabeth	Malone	EM	424	784-1343	7859 Leslie Way		Markham
7	Luise	Bright	LB	903	546-2432	No. 456 Ocean Drive	Eastway North	San Francisco
8	Crystal	Paulikova	CP	205	565-2342	32, 15 Street	Northern Region	Richmond
9	Bing	Li	BL	220	543-2563	34, 2423 Nan Jing Rd	Pu Xi	Shanghai
10	Wayne	White	WW	416	735-7564	5902 Southway Drive	Industrial Area	Edmonton
11	Crystal	Millard	CM	773	532-2454	4532 Bayside Way		Chicago
12	John	Brar	JB	901	452-32352	301, ZhongShan Lu		Beijing
13	Andrew	White	AW	403	564-1423	89 Mcknight Blvd	Southwest	Calgary
14	Michael	Lewis	ML	778	788-9933	3450 Dominion Street		Burnaby
15	Ericka	Smith	ES	903	195-2357	12, 2300 Kings Rd		San Francisco

ALUMNI – Section 2 *this is an extension of section 1*

ALUMNI_POSTCODE	ALUMNI_PROVINCE	ALUMNI_COUNTRY	ALUMNI_BIRTHDATE	ALUMNI_EMAIL	ALUMNI_GRAD_DATE	SUBJECT_ID	STATUS_ID
98111	WA	USA	1980-03-20	dstevens@yahoo.com	2008-12-20	6	1
110034		India	1982-11-15	mshah@hotmail.com	2008-06-20	1	1
V4G 3H2	BC	Canada	1981-02-11	ksaunders@gmail.com	2008-03-15	6	1
V4S 2T6	BC	Canada	1982-01-04	mbruhn@yahoo.com	2008-12-20	3	1
T2K 5S6	AB	Canada	1983-10-25	jkreem@yahoo.com	2008-06-20	9	3
K3E 3P5	ON	Canada	1985-03-10	emalone@gmail.com	2009-06-20	6	1
92330	CA	USA	1982-06-12	lbright@hotmail.com	2009-12-20	1	1
F2S 3N4	ON	Canada	1990-07-25	cpaulikova@yahoo.com	2009-07-01	10	1
311000	Shanghai	China	1990-07-18	bli@gmail.com	2010-06-20	8	2
R2S 3K1	AB	Canada	1990-09-04	wwhite@hotmail.com	2011-12-18	6	1
890011	IL	USA	1991-02-07	cmillard@gmail.com	2012-06-20	7	1
111000	Beijing	China	1983-08-12	jbrar@gmail.com	2013-06-23	4	1
T3H 3V2	AB	Canada	1985-05-26	awhite@yahoo.com	2013-06-23	6	3
V4G 4K6	BC	Canada	1990-04-19	mlewis@hotmail.com	2013-06-23	6	1
81100	CA	USA	1991-01-28	esmith @yahoo.com	2015-03-20	2	1

9.2. SUBJECT – Sample 1

SUBJECT_ID	SUBJECT_NAME
1	Fine Arts
2	Biological Sciences
3	Chemistry
4	History and English
5	History of Art
6	Computer Science
7	Biomedical Science
8	Medicine
9	Physics
10	Philosopy,Politics and Economics

9.3. INTEREST and CATAGORY– Sample 1

INTEREST_ID	INTEREST_CATEGORY_ID	INTEREST_TYPE
1	1	Anthropology
2	2	Business Communications
3	2	Business Technology Network
4	2	Entrepreneur
5	3	Public Health Service
6	4	Korean Culture
7	5	Anime
8	5	Aviation
9	5	Chess
10	6	Ballet
11	6	French Film
12	6	Jazz
13	6	Pottery
14	6	Writing
15	7	Badminton
16	7	Canoe
17	7	Hockey
18	7	Rowing
19	7	Equestrian
20	7	Golf
21	7	Fencing
22	7	Martial Arts
23	7	Sailing
24	7	Ski
25	7	Surf
26	7	Swimming
27	7	Table Tennis
28	7	Tennis
29	7	Water Polo

INTEREST_CATEGORY_ID	INTEREST_CATEGORY_NAME
1	Academic
2	Management
3	Community Service
4	Cultural
5	Leisure
6	Arts
7	Athletic
8	Political
9	Science
10	Spiritual
11	Other

9.4. STATUS

STATUS_ID	STATUS_NAME
1	Active
2	Holding
3	Former

9.5. ALUMNI_INTEREST – Bridge Entity

ALUMNI_ID	INTEREST_ID
1	18
1	28
2	17
3	34
4	14
4	33
5	19
6	8
6	9
9	36

9.6. CLUB

CLUB_ID	CLUB_NAME	CLUB_DESCRIPTION	ALUMNI_ID	CLUB_FEE	CLUB_ESTABLISHED_DATE
1	General Alumni Club	General Alumni Club	1	100	1910-01-01
2	Writing Club	Student-run initiative that hosts workshops and readings for creative writers	2	25	2000-01-01
3	Hockey Club	Formed by students, part of a 6 team university league	3	200	1980-11-01
4	Rowing Society	All those at who want to learn what rowing is all about!	4	100	1975-05-31
5	Equestrian Club	Equestrian Club was constituted to provide the opportunity for riders of all levels	5	150	2010-06-01
6	Astronomy Club	All who share an interest in astronomy	6	25	2000-04-30
7	Kidney Health Awareness Club	Raise awareness regarding the importance of organ donation and kidney health	7	25	2012-01-01
8	Entrepreneurship Association	Entrepreurs supporting other Entrepreneurs	8	25	2000-01-05
9	University Christian Ministry	Student-led community passionate about our faith in Christ.	9	25	1980-01-01
10	Meal Exchange	Address food insecurity and local hunger issues in our communities	10	25	2010-11-01
11	Canoe and Kayak Club	Everyone that wants to enjoy the water, compete in canoe and kayak racing	1	50	1990-06-01

9.7. MEMBERSHIP – Bridge Entity

MEMBERSHIP_ID	CLUB_ID	ALUMNI_ID	MEMBERSHIP_START_DATE	STATUS_ID	MEMBERSHIP_FEE_PAID
1	1	1	2015-01-01	1	☑
2	1	2	2015-01-01	1	☑
3	1	3	2015-01-01	1	☑
4	1	4	2015-01-01	1	☑
5	1	5	2015-01-01	1	☑
6	1	6	2015-01-01	1	☑
7	1	7	2015-01-01	1	☑
8	1	8	2015-01-01	1	☑
9	1	9	2015-01-01	1	☑
10	1	15	2015-03-20	1	☑
11	5	5	2014-04-01	2	☐
12	7	5	2014-02-01	2	☐
13	11	14	2015-03-20	1	☑
14	6	12	2015-02-01	1	☑
15	6	11	2015-02-11	1	☑
16	4	1	2014-07-01	3	☑
17	3	2	2015-03-11	1	☑
18	9	3	2013-02-22	3	☑
19	4	1	2015-01-01	1	☑
20	9	3	2014-04-14	3	☑
21	6	4	2015-02-11	1	☑
22	8	5	2013-01-05	3	☑
23	3	6	2013-05-21	3	☑
24	4	6	2014-03-01	2	☐
25	2	4	2014-01-15	2	☐
26	9	3	2015-02-01	1	☑

9.8. EVENTS – Sample 1

EVENT_ID	CLUB_ID	ALUMNI_ID	EVENT_NAME	EVENT_LOCATION_NAME	EVENT_ADDRESS1	EVENT_ADDRESS2
1	1	1	Treasured Possessions	Fitzwilliam Museum	Trumpington Street	CB2 1RB
2	5	1	German Oxford and Cambridge Societies' Annual Horse Racing	Hoppegarten	Post Strasse 7	15366 Hoppegarten
3	2	8	Vancouver Writers Fest	Vancouver Public Library	350 W Georgia St	V6B 6B1
4	1	1	Cambridge Judge Business School Alumni Reunion 2015	Cambridge Judge Business School	Trumpington Street	CB2 1AG
5	3	5	Tampa Bay vs. NY Rangers	Madison Square Garden	7th Ave & 32nd Street	
6	11	5	Henley Women's regatta	Consuta II	Hobbs mooring Station Road	RG9 1AZ
7	1	1	The University of Queensland Great Court Race	The Great Court - University of Queensland	QLD 4072	St Lucia
8	1	1	Vancouver Boat Race Dinner	RVYC	3811 Point Grey Road	
9	8	8	Cambridge Land Society Annual CEO Talk	Carter Jonas	One Chapel Place	W1G 0BG
10	10	5	Silver Street Group Annual Dinner	The Savile Club	69 Brook Street	W1K 4ER

EVENTS – Sample 2 *this is an extension of sample 1*

EVENT_CITY	EVENT_PROVINCE	EVENT_COUNTRY	EVENT_START_DATE	EVENT_END_DATE	EVENT_START_TIME	EVENT_END_TIME	EVENT_FEE	EVENT_DETAILS
Cambridge	Cambridgeshire	United Kingdom	2015-03-24	2015-09-06	10:00:00 AM	5:00:00 PM	20	Park & Ride facilities are at: Babrahar
Hoppegarten	Brandenburg	Germany	2015-05-24	2015-05-24	11:30:00 AM	6:00:00 PM	15	Guests can meet at Villa Hoppegarte
Vancouver	British Columbia	Canada	2015-05-20	2015-05-25	8:00:00 AM	5:00:00 PM	25	
Cambridge	Cambridgeshire	United Kingdom	2015-07-11	2015-07-11	2:00:00 PM	11:00:00 PM	75	Accommodation: Find out about pref
New York	New York	United States	2015-05-24	2015-05-24	8:00:00 PM	11:00:00 PM	150	
Henley	Oxfordshire	United Kingdom	2015-06-21	2015-06-21	12:00:00 PM	6:00:00 PM	10	
Brisbane	Queensland	Australia	2015-05-07	2015-05-07	1:00:00 PM	2:00:00 PM	15	VIP pre-event with canapes and drinl
Vancouver	British Columbia	Canada	2015-05-01	2015-05-01	6:30:00 PM	10:30:00 PM	88	
London		United Kingdom	2015-06-24	2015-06-24	7:45:00 AM	9:30:00 AM	21	Registration is from 7.45am, and is ac
London		United Kingdom	2015-05-27	2015-05-27	7:00:00 PM	11:00:00 PM	67	Dress: Black tie.

9.9. INVITATIONS

INVITATION_ID	EVENT_ID	ALUMNI_ID	INVITATION_FEE_IS_PAID	INVITATION_ATTENDENCE	INVITATION_RSVP_DEADLINE	INVITATION_PAID_DATE
1	8	1	☑	☑	2015-05-10	2015-05-01
2	5	2	☑	☑	2015-05-10	2015-05-01
3	8	3	☑	☐	2015-05-10	2015-05-02
4	5	1	☑	☑	2015-05-15	2015-05-02
5	3	4	☐	☐	2015-05-15	
6	9	5	☑	☑	2015-05-15	2015-05-05
7	7	1	☐	☐	2015-05-10	
8	7	3	☑	☐	2015-05-10	2015-05-05
9	8	7	☑	☐	2015-05-15	2015-05-07
10	8	8	☑	☑	2015-05-15	2015-05-08
11	2	1	☑	☑	2015-05-15	2015-05-02
12	2	3	☑	☑	2015-05-15	2015-05-02
13	2	5	☑	☑	2015-05-15	2015-05-08
14	2	2	☑	☐	2015-05-15	