CSE 412 Class Project

Project Report – Intermediate Deliverables

DaBest Team: #7

✔ Requirements description
✔ ER diagram with min/max specifications
✔ Group Status Report

We, the members of Group 7, have read and certify the above deliverables have been met.

Role	Name	Email	Signature
Technical Advisor 1	Andrew Bland	abland4@asu.edu	_____
Phase Leader	Michelle Zelechowski	mzelecho@asu.edu	_____
Phase Checker	John Shaeffer	jdshaeff@asu.edu	_____
Technical Advisor 2	Abdulrahman Altuwijry	aaltuwij@asu.edu	_____
Phase Recorder	Kevin Jackson	ktjacks1@asu.edu	_____

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Introduction

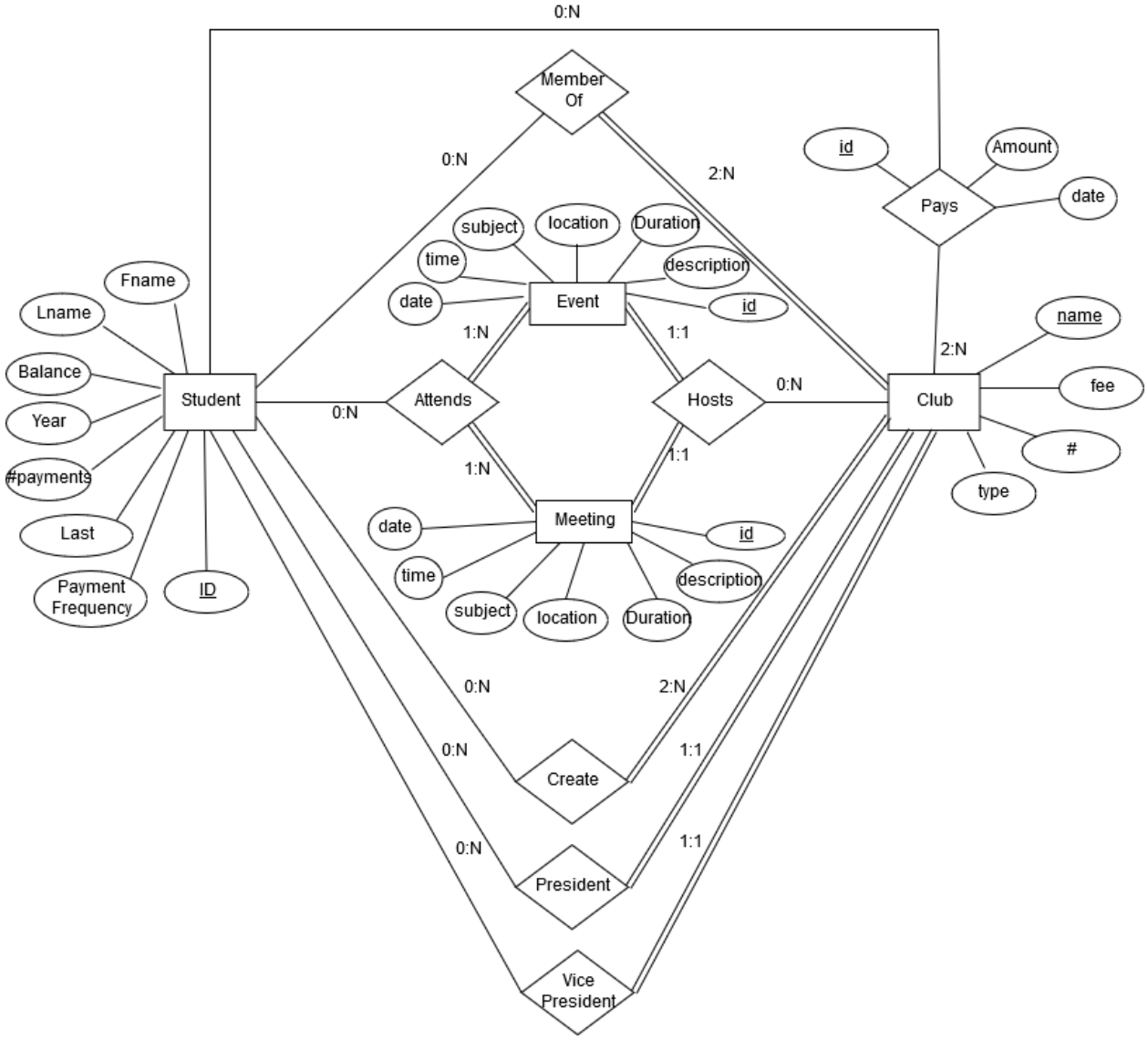
This document serves as the Phase 1 Deliverable for the student club database system. The student club database system is intended as a database of student-led clubs and organizations, which allows the tracking of event attendance, club fees, and membership numbers.

Requirements and Description

The college stores information about students, clubs, meetings, events, and student payments. The following data have been identified in the requirements collection and analysis phase and they are to be represented in the enterprise:

- There are many student clubs at the college. Each club has a unique name, club type, student fee, and member count. A club must be founded by at least two students (and subsequently contain at least the two founders as members). A club must also have one Vice President and one President. Not all students belong to a club. A club can host meetings (which only members can attend) and events (which are open to all students). A club does not have to host meetings or events, but can host as many of each as it likes.
- Students do not have to belong to a club, but can belong to as many as they like. If a student does belong to a club, they must pay the student fee. Each student must have a name (consisting of first and last), payment balance, last payment date, payment frequency, count of payments made, year in college, and unique student ID. A student can be a President or Vice President for as many clubs as they like. A student can attend meetings for clubs for which they are a member. They can attend any event they'd like.
- Students pay clubs to compensate for membership. Payments are for a specific amount, the date is recorded, and each payment has a unique ID.
- Meetings have a date/time, subject, location, description, duration, and unique meeting ID. Only one club hosts a meeting and there is no limit on the number of members that can attend. Only members can attend meetings. At least one member attends each meeting.
- Events have a date/time, subject, location, description, duration, and unique event ID. Only one club hosts an event and there is no limit on the number of members that can attend. At least one student attends each event.

Conceptual Design ER Diagram



GROUP STATUS REPORT

GROUP #: _7__ GROUP NAME: _____DaBest Team_____ PHASE #: __1__

We have each reviewed the contents of the following group status report:

	Printed Name	*Signature*
Phase Leader	Michelle Zelechowski	_____
Phase Recorder	Kevin Jackson	_____
Phase Checker	John Shaeffer	_____
Technical Advisor 1	Andrew Bland	_____
Technical Advisor 2	Abdulrahman Altuwijry	_____

❏ Dates & attendance at group meetings in this phase:

Wednesday, Sept 4 4-6pm All members present

❏ Overview of progress on project as of September 9th:

The design team met with the client to determine system specifications and data requirements. Based on the gathered system requirements, an overall database schema was designed in our first meeting to determine several different data entities and relationships. With this outline our team was able to design an Entity-Relationship model for the initial deliverable. Subsequent meetings are scheduled to determine additional relationships and constraints to address all system requirements. Further communication with the client will also be conducted.

❏ For each group member, indicate in detail the contributions and expected contributions in this phase:

Leader:

- Aided in the design of database schema and Entity-Relationship Model
- Helped determine various entity relationships
- Prepared the requirements and description for the intermediate deliverable

Recorder:

- Aided in the design of database schema and Entity-Relationship Model
- Helped determine the different required data entities for the system
- Prepared the group status report for the intermediate deliverable

Phase Checker:

- Aided in the design of database schema and Entity-Relationship Model
- Helped determine the different required data entities for the system
- Utilized chart building software to prepare Entity-Relationship diagram

Technical Advisor 1:

- Aided in the design of database schema and Entity-Relationship Model
- Organized team drive to facilitate processing of the intermediate deliverable
- Prepared the introduction and table of contents for the intermediate deliverable

Technical Advisor 2:

- Aided in the design of database schema and Entity-Relationship Model
- Helped determine various entity relationships
- Utilized chart building software to prepare Entity-Relationship diagram

PHASE 1: SUBMISSION CHECKLIST/SIGNOFF SHEET

GROUP #: 7 GROUP NAME: DaBest Team

Deliverables:

☐ Requirements description

☐ ER diagram with min/max specifications

☐ Constraints not in ER schema

☐ Summary of processing needs

(Categorization into expected forms, reports, and queries)

Assessment:

☐ Group Status Report

☐ Returned Phase 1 Intermediate

☐ Confidential Peer Evaluation (submitted separately)

We have each reviewed the contents of this deliverable.

	Printed Name	*ASU Email*	*Signature*
Phase Leader	Michelle Zelechowski	mzelecho@asu.edu	_____
Phase Recorder	Kevin Jackson	ktjacks1@asu.edu	_____
Phase Checker	John Shaeffer	jdshaeff@asu.edu	_____
Technical Advisor 1	Andrew Bland	abland4@asu.edu	_____
Technical Advisor 2	Abdulrahman Altuwijry	aaltuwij@asu.edu	_____

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Constraints Not In ER Schema

The following is a list of constraints that are not captured by the ER diagram:

- You have to be a member to attend a meeting
- Student cannot attend a meeting or event if they have not paid their balance
- STUDENT.year must be a value existing in the following set {Freshman, Sophomore, Junior, Senior}
- STUDENT.numberOfPayments >= 0
- STUDENT.paymentFrequency must be value existing in following set {weekly, monthly, quarterly, annually}
- STUDENT.lastPayment <= current date
- EVENT.duration > 0
- MEETING.duration > 0
- PAYS.date <= current date
- CLUB.fee > 0
- CLUB.type must be a value existing in the following set {athletic, volunteer, academic, hobby, special interest, other}
- PAYS.amount >= 0

Forms

Form Name	Description

Update Club Memberships	Each club will have its own roster of members. Since this can change periodically, each club should be able to enter and update this information
Update Payments	Each member of a club must pay a membership fee to the club. Clubs should be able to update payment histories for their members to reflect recent or missed payments
Add A Club	Students should be able to create clubs, provided they have a minimum of 2 members to meet the leadership roles.
Add a student	The university should be able to add students to the roster whenever they accept new students.

Reports

Query Name	Description
Club list	the club list reports shows all clubs that were created and list all the information of each club, such as name, id, fee …etc. This list will be sorted alphabetically by the club name.
Students list	the students list reports lists all the students, wether they are in a club or not, and their information (name, id, …). This list will be sorted alphabetically using the students last names.

Queries

Query Name	Description
Student	
Students with Balance	For each student with an account balance greater than 0, retrieve the student's first name, last name, id, last payment, and outstanding balance.
Students in Leadership Roles	For each student who is either President or Vice President of at least one club, retrieve the student's first name, last name, id, and year.
Event	
Event Attendees	For an event, retrieve the first name, last name, year, and id of all students who attended that particular event.
Events Scheduled in the Next 30 Days	Retrieve the date, time, subject, location, description and id of each event that has a date value within 30 days of the current date.
Meeting	
Meeting Attendees	For a meeting, retrieve the first name, last name, and id of all students who attended that particular meeting.
Meetings Scheduled in the Next 30 Days	Retrieve the date, time, subject, location, description and id of each meeting that has a date value within 30 days of the current date.
Club	
Clubs of a Certain Type	Retrieve the name, type, and fee of all clubs which match a certain club type (i.e. academic, sports, etc.) provided by the user.

Clubs which have Hosted Recent Events	Return the name, number, and type of all clubs which have hosted an event within the last 30 days of the current date.

GROUP STATUS REPORT

GROUP #: 7 **GROUP NAME: DaBest Team** **PHASE #: 1**

We have each reviewed the contents of the following group status report:

	Printed Name	*Signature*
Phase Leader	Michelle Zelechowski	_____
Phase Recorder	Kevin Jackson	

_____

Phase Checker	John Shaeffer	_____
Technical Advisor 1	Andrew Bland	_____
Technical Advisor 2	Abdulrahman Altuwijry	_____

Dates & attendance at group meetings in this phase:

September 18th, 2019 - 6:30 pm - all members present Overview

of progress on project as of September 26, 2019:

On time, on budget, and satisfying all deliverables - prepared to move on to the next phase. Came up with the blueprint for designing the actual database and what constraints and goals we need to focus on.

For each group member, indicate in detail the contributions and expected contributions in this phase:

Leader:

- Prepared a list of constraints that needs to be accounted for in the database design Recorder:

- Designed and prepared explanations for potential queries used for each table in the database system.

Phase Checker:

- Prepared and edited the final document with complete table of contents, status report sheet, and cover sheet.

Technical Advisor 1:

- Prepared explanations for potential forms used in the database system Technical Advisor 2:
- Helped with differentiation between the forms, reports, and quires.
- Prepared explanations for potential reports used in the database system