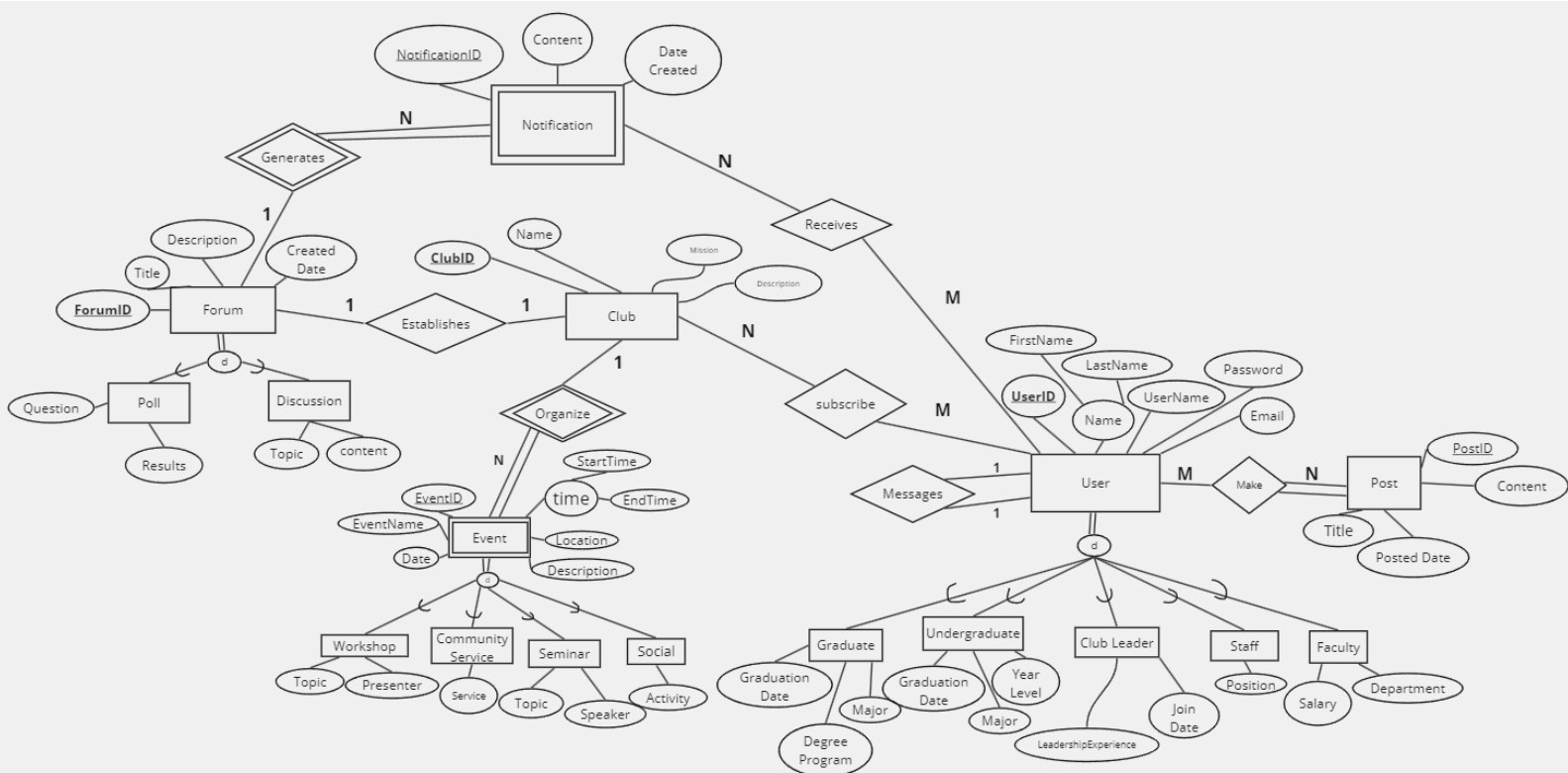The name of the cohort: **ClubDisLinkers**

The description of the Mini-World: Comet Connect!

Welcome to Comet Connect, the University of Texas at Dallas club hub app! This app is your gateway to exploring and engaging with a diverse array of clubs, each hosting exciting events on campus.

Whether you're a student (undergraduate or graduate) or an employee (staff, faculty, or club faculty), the app simplifies the process of subscribing to clubs that match your interests. Once subscribed, you can actively participate by making posts, in the form of polls or discussions, within the app, and these posts will be stored in dedicated discussion forums created by the clubs, and users will get notified by the app when something new is posted! Users can also message each other via direct messaging.

Discover an array of events organized by clubs, such as workshops, community service activities, seminars, and social gatherings. What makes Comet Connect special is the active involvement of club faculty who not only guide but also host the clubs. Students and employees have the opportunity to transition into club faculty, and employees, including staff and faculty, can become integral members of the hosting process.

Comet Connect is more than just an app; it's a dynamic platform designed to bring the university community together. Explore, engage, and connect through clubs, events, and discussions—all conveniently accessible through the Comet Connect app. It's your go-to space for fostering a sense of community and staying actively involved in campus life.

Notification
- NotificationID
- Content
- Date Created

Generates (N ... 1)

Receives (N ... M)

Forum
- ForumID
- Description
- Title
- Created Date

Establishes (1 ... 1)

Club
- ClubID
- Name
- Mission
- Description

subscribe (N ... M)

Organize (1 ... N)

Poll
- Question
- Results

Discussion
- Topic
- content

Event
- EventID
- EventName
- Date
- StartTime
- time
- EndTime
- Location
- Description

Event subtypes (d)
Workshop
- Topic
- Presenter

Community Service
- Service

Seminar
- Topic
- Speaker

Social
- Activity

User
- FirstName
- LastName
- UserID
- Name
- UserName
- Password
- Email

Messages (1 ... 1)

Make (M ... N)

Post
- PostID
- Content
- Title
- Posted Date

User subtypes (d)
Graduate
- Graduation Date
- Major
- Degree Program

Undergraduate
- Graduation Date
- Year Level
- Major

Club Leader
- LeadershipExperience

Staff
- Join Date
- Position

Faculty
- Salary
- Department

Even though the hosts of the clubs can be considered employees, we chose to make a new entity called club faculty, which students and employees can both join. We assume that club hosts are not considered employees of the university.

In this mini-world, only clubs are allowed to organize events, making the event entity a weak entity.

Even though users are both employees and students, we choose to add a subscribe relationship between users and the club since some users will subscribe to the club and become members or branch off to become leaders/organizers.

When a club is made, the club can choose to establish a forum to keep communication with users there. Users (which include club faculty) can post to the forum.
Users can directly message each other. No group messaging.

Whenever a user is part of a forum, they will get notified by the forum and users of that forum will receive the notification.

Entity Dictionary:

Club:
Description: An organization within the university that hosts events and has members.
Attributes:
- ClubID: Integer, an identifying number for the club
- Name: Varchar(5000), the name of the club
- Mission: Text, a statement describing the club's goals and purpose.
- Description: Varchar(5000), Description of the club
- Primary Key: ClubID

Club Leaders:
Description: The user leaders of which clubs.
Attributes:
- Leadership Experience: Integer, experience in leadership roles.
- VisionForTheClub: Text, vision for the club's future and direction.
- JoinDate: DATE, the day the user joined as a club leader
- Primary Key: Inherits UserID from superclass User

Community Service:
Description: The club faculty hosts a community service for the club.
Attributes:
- Service: Varchar(20), specifies what the service will be
- Primary Key: Inherits EventID from superclass Event

Discussion
Description: Represents a discussion within the discussion forum.
Attributes:
- Topic: Varchar(100), the topic of the discussion
- Content: Text, the content of the discussion
- Primary Key: Inherits ForumID from superclass Forum

Event:
Description: Various events organized within the university by clubs.
Attributes:
- EventID: Integer, an identifying number for the event(Partial Key)
- EventName: Varchar(80), the name of the event
- Date: Date, the date of the event
- Time: Time, a compound attribute that contains StartTime and EndTime
- StartTime: Time, the start time of the event
- EndTime: Time, the end time of the event
- Location: Varchar(100), the location where the event will be held
- Description: Text, a brief description of the event

- Primary Key: EventID

Faculty:
Description: Faculty members of the university.
Attributes:
- Department: Varchar(50), the department where the faculty member works
- Salary: Float, The salary of the faculty member
- Primary Key: Inherits UserID from superclass User

Forum:
Description: Entity representing a discussion forum for clubs where members make posts and post polls.
Attributes:
- ForumID: Integer, an identifying number for the discussion forum
- Title: Varchar(100), the title of the forum
- Description: Text, a brief description of the forum's purpose
- CreatedDate: Date, the date when the forum was created
- Primary Key: ForumID

Graduate:
Description: Graduate students within the university.
Attributes:
- DegreeProgram: Varchar(50), the degree program the graduate student is enrolled in.
- Major: Varchar(50), the major of the student
- GraduationDate: Date, the expected graduation date of the student
- Primary Key: Inherits UserID from superclass User

Notification:
Description: Notifications within the university's club application.
Attributes:
- NotificationID: Integer, an identifying number for the notification
- Content: Text, the content of the notification
- DateCreated: Date, the date when the notification was created
- Primary key: NotificationID

Poll
Description: Represents a poll within the discussion forum.
Attributes:
- Question: Varchar(5000), the question of the poll
- Results: Date, when to see the results of the poll
- Primary Key: Inherits ForumID from superclass Forum

Post:
Description: User-generated posts within the university's club application.
Attributes:

- PostID: Integer, an identifying number for the post
- Title: Varchar(500), the title of the post
- Content: Text, the content of the post
- PostedDate: Date, the date when the post was created
- Primary Key: PostID

Seminar:
Description: A type of event representing seminars organized by clubs.
Attributes:
- Topic: Varchar(100), the topic of the seminar
- Speaker: Varchar(100), the name of the speaker/presenter
- Primary Key: Inherits EventID from superclass Event

Social:
Description: A type of event representing social gatherings organized by clubs.
Attributes:
- Activity: Varchar(100), the activity planned for the social event
- Primary Key: Inherits EventID from superclass Event

Staff:
Description: Staff members of the university.
Attributes:
- Position: Varchar(50), the position/title of the staff member
- Primary Key: Inherits UserID from superclass User

Undergraduate:
Description: Undergraduate students within the university.
Attributes:
- YearLevel: Integer, the current year level of the undergraduate student
- Major: Varchar(50), the major of the student
- GraduationDate: Date, the expected graduation date of the student
- Primary Key: Inherits UserID from superclass User

User:
Description: Users of the club application within the university.
Attributes:
- UserID: Integer, a unique identifier for the user
- Name: Varchar(200), the first name and last name of the user
- FirstName: Varchar(100), the first name of the user
- LastName: Varchar(100), the last name of the user
- UserName: Varchar(80), the username of the user
- Password: Varchar(50), the password of the user
- Email: Varchar(100), the email address of the user
- Primary Key: UserID

Workshop:
Description: A type of event representing workshops organized by clubs.
Attributes:
- Topic: Varchar(100), the topic of the workshop
- Presenter: Varchar(100), the name of the presenter/organizer
- Primary Key: Inherits EventID from superclass Event

Relation Dictionary:

Relationship: Establishes
Description: Clubs establish one discussion forum. Each discussion forum is established by one club. Discussion forums can exist without being established by a club; clubs can exist without establishing discussion forums.
Entities: Club, Discussion Forum
Cardinality: One Club to One Discussion Forum
Participation: Partial-to-Partial

Relationship: Generates
Description: Forums generate many notifications. Each notification is generated by one forum. Forums may exist without generating notifications; notifications cannot exist without being generated by a forum.
Entities: Forum, Notification
Cardinality: One Forum to Many Notifications
Participation: Partial-to-Total

Relationship: Make
Description: Each user can make one or more posts, and each post can be made by one or more users. Users may exist without making any posts, but each post must be associated with at least one user, and each user may contribute to multiple posts.
Entities: User, Post
Cardinality: Many Users to Many Posts
Participation: Partial-to-Total

Relationship: Messages
Description: Users can send messages to one another. Each user can send messages to one or more users, and each user can receive messages from one or more users. Users can exist without sending or receiving any messages.
Entities: User
Cardinatility: one user to one user
Participation: Partial to partial

Relationship: Organize
Description: Clubs organize one or more events. Events must be organized by one club. Events cannot exist without being organized by a club; clubs can exist without organizing events.
Entities: Club, Event
Cardinality: One Club to Many Events
Participation: Partial-to-Total

Relationship: Receives
Description: Users can get notifications, and notifications can go to multiple users. Not all users get all notifications, and not all notifications go to all users.

Entities: User, Notification
Cardinatility: many users to many notifications
Participation : Partial to Partial

Relationship: Subscribes
Description: Users subscribe to one or more clubs. Clubs have one or more subscribers. Users can exist without subscribing to any club; clubs can exist without having any subscribers.
Entities: User, Club
Cardinality: Many Users to Many Clubs
Participation: Partial-to-Partial

Notification

NForumID	NotificationID	Content	DateCreated

Receives

RNotificationID	RUserID

Forum

ForumID	Title	Description	CreatedDate

Club

ClubID	Name	Mission	Description

User

UserID	Fname	Lname	Username	Password	Email

Post

PostID	Content	PostedDate	Title

Poll

PForumID	Question	Results

Subscribe

SBUserID	SBClubID

Graduate

GUserID	DegreeProgram	Major	GraduationDate

Make

MPostID	MUserID

Discussion

DForumID	Topic	Content

Undergraduate

UUserID	YearLevel	Major	GraduationDate

Event

EClubID	EventID	EventName	Date	StartTime	EndTime	Location	Description

Staff

SUserID	Position

Faculty

FUserID	Department	Salary

Workshop

WEClubID	WEventID	Topic	Presenter

Club Leaders

CLUserID	LeadershipExperience	JoinDate

Community Service

CSEClubID	CSEventID	Service

Seminar

SEClubID	SEventID	Topic	Speaker

Social

SOEClubID	SOEventID	Activity

<u>**Schema Dictionary:**</u>

Name: Club
Description: An organization within the university that hosts events and has members.
Attributes:
- ClubID: Integer, an identifying number for the club
- Name: Varchar(5000), the name of the club
- Mission: Text, a statement describing the club's goals and purpose.
- Description: Varchar(5000), Description of the club
- Primary Key: ClubID

Name: Club Leaders
Description: The user leaders of which clubs.
Attributes:
- CLUserID: Integer, a unique identifier for the club leaders
- Leadership Experience: Integer, experience in leadership roles.
- JoinDate: DATE, the date the user became a leader
- Primary Key: CLUserID
- Foreign Key: CLUserID references UserID

Name: Community Service
Description: The club faculty hosts a community service for the club.
Attributes:
- CSEventID: Integer, an identifying number for community service
- CSEClubID: Integer, an identifying number for the EClubID
- Service: Varchar(20), specifies what the service will be
- Primary Key: CSEventID, CSEClubID
- Foreign Key: CSEventID references EventID, CSEClubID references EClubID

Name: Discussion
Description: Entity representing a discussion between members.
Attributes:
- DForumID: Integer, an identifying number for the discussion.
- Topic: Varchar(100), broad idea of what the discussion will be about.
- Content: Text, all the material that will be covered in the discussion.
- Primary Key: DForumID
- Foreign Key: DForumID references ForumID

Name: Event
Description: Various events organized within the university by clubs.
Attributes:
- EClubID: Integer, an identifying number for the club
- EventID: Integer, an identifying number for the event

- EventName: Varchar(80), the name of the event
- Date: Date, the date of the event
- StartTime: Time, the start time of the event
- EndTime: Time, the end time of the event
- Location: Varchar(100), the location where the event will be held
- Description: Text, a brief description of the event
- Primary Key: EventID, EClubID
- Foreign Key: EClubID references ClubID

Name: Faculty
Description: Faculty members of the university.
Attributes:
- FUserID: Integer, a unique identifier for the faculty
- Department: Varchar(50), the department where the faculty member works
- Salary: Float, Annual Income for each faculty member.
- Primary Key: FUserID
- Foreign Key: FUserID references UserID

Name: Forum
Description: Entity representing a forum for clubs where members make posts.
Attributes:
- ForumID: Integer, an identifying number for the forum.
- Title: Varchar(100), the title of the forum
- Description: Text, a brief description of the forum's purpose
- CreatedDate: Date, the date when the forum was created
- Primary Key: ForumID

Name: Graduate
Description: Graduate students within the university.
Attributes:
- GUserID: Integer, a unique identifier for the graduate user
- DegreeProgram: Varchar(50), the degree program the graduate student is enrolled in.
- Major: Varchar(50), Field of study student is studying.
- Graduation Date: Date, Date student graduates.
- Primary Key: GUserID
- Foreign Key: GUserID references UserID

Name: Make
Description: Subscribed users make posts in the forum
Entitles: User, Post
Participation: Partial, total
Cardinality: Many-to-many
Attributes:
- MPostID: Integer, an identifying number for the post

- MUserID: Integer, a unique identifier for the user
- Primary Key: MPostID, MUserID
- Foreign Key: MPostID references PostID, MUserID references UserID

Name: Notification
Description: Entity representing a notification sent to users via forums they're in
Attributes:
- NForumID: Integer, an identifying number for the forum.
- NotificationID: Integer, an identifying number for the notification
- Content: Text, the content of the notification
- DateCreated: Date, A date the notification was sent
- Primary Key: NotificationID, NForumID
- Foreign Key: NForumID references ForumID

Name: Poll
Description: User-generated polls within the university's club application.
Attributes:
- PForumID: Integer, an identifying number for the poll.
- Question: Varchar(500), Question the poll asks the users.
- Results: DATE, when the results are posted
- Primary Key: PForumID
- Foreign Key: PForumID references ForumID

Name: Post
Description: User-generated posts within the university's club application.
Attributes:
- PostID: Integer, an identifying number for the post
- Content: Text, the content of the post
- PostedDate: Date, the date when the post was created
- Title: Varchar(100), Title of post.
- Primary Key: PostID

Name: Receives
Description: Subscribed users to a forum receive a notification
Entitles: Notification, User
Participation: Partial, partial
Cardinality: Many-to-Many
Attributes:
- RNotificationID: Integer, an identifying number for the notification
- RUserID: Integer, a unique identifier for the user
- Primary Key: RNotificationID, RUserID
- Foreign Key: RNotificationID references NotificationID, RUserID references UserID

Name: Seminar

Description: A type of event representing seminars organized by clubs.
Attributes:
- SEventID: Integer, an identifying number for the seminar
- SEClubID: Integer, an identifying number for EClubID
- Topic: Varchar(100), the topic of the seminar
- Speaker: Varchar(100), the name of the speaker/presenter
- Primary Key: SEventID, SEClubID
- Foreign Key: SEventID references EventID, SEClubID references EClubID

Name: Social
Description: A type of event representing social gatherings organized by clubs.
Attributes:
- SOEventID: Integer, an identifying number for the social event
- SOClubID: Integer, an identifying number for EClubID
- Activity: Varchar(100), the activity planned for the social event
- Primary Key: SEventID, SOClubID
- Foreign Key: SEventID references EventID, SOClubID references EClubID

Name: Staff
Description: Staff members of the university.
Attributes:
- SUserID: Integer, a unique identifier for the staff users
- Position: Varchar(50), the position/title of the staff member
- Primary Key: SUserID
- Foreign Key: SUserID references UserID

Name: Subscribe
Description: Users scribe to a club to join it
Entitles: User, Club
Participation: Partial, partial
Cardinality: Many-to-many
Attributes:
- SBUserID: Integer, a unique identifier for the user
- SBClubID: ClubID: Integer, an identifying number for the club
- Primary Key: SBUserID, SBClubID
- Foreign Key: SBUserID references UserID, SBClubID references ClubID

Name: Undergraduate
Description: Undergraduate students within the university.
Attributes:
- UUserID: Integer, a unique identifier for the undergraduate user
- YearLevel: Integer, the current year level of the undergraduate student
- Major: Varchar(20),Field of study student is studying.
- Graduation Date: Date, Date student graduates.

- Primary Key: UUserID
- Foreign Key: UUserID references UserID

Name: User
Description: Users of the club application within the university.
Attributes:
- UserID: Integer, a unique identifier for the user
- Fname: Varchar(100), the first name of the user
- Lname: Varchar(100), the last name of the user
- Username: Varchar(80), the username of the user
- Password: Varchar(50), the password of the user
- Email: Varchar(100), the email address of the user
- Primary Key: UserID

Name: Workshop
Description: A type of event representing workshops organized by clubs.
Attributes:
- WEventID: Integer, an identifying number for the workshop
- WEClubID: Integer, an identifying number for the EClubID
- Topic: Varchar(100), the topic of the workshop
- Presenter: Varchar(100), the name of the presenter/organizer
- Primary Key: WEventID, WEClubID
- Foreign Key: WEventID references EventID, WEClubID references EClubID