



**Dhirubhai Ambani
University**

Master of Science in Information & Technology

Project : Althub

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Course: Software Design & Testing

Under the Guidance of,

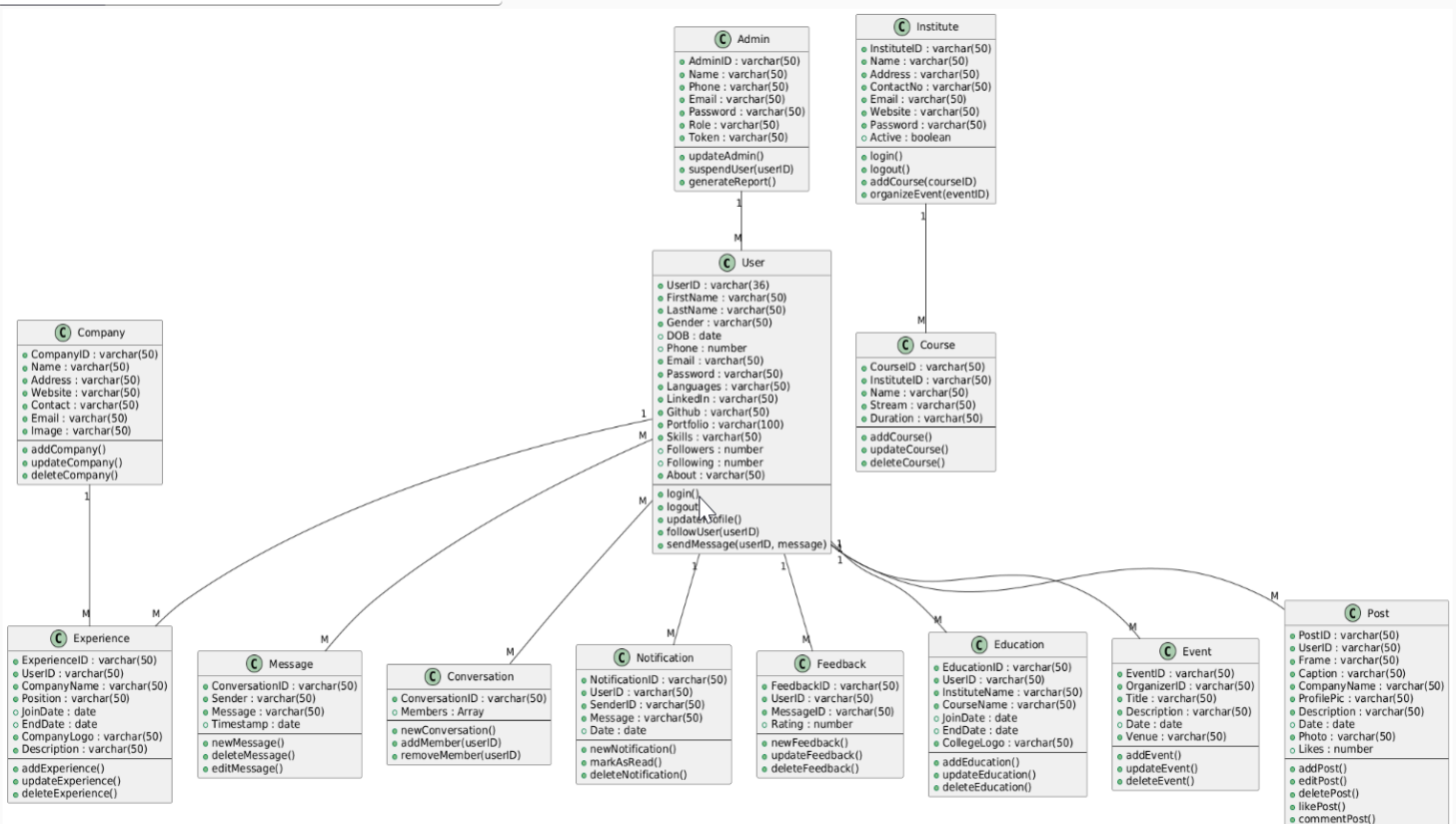
Ankush Chander



Vision:

AltHub aims to become a unified digital platform that fosters seamless connections among institutes, alumni, and students by enabling quick, secure, and efficient communication. The vision is to eliminate the challenges of manual data collection and scattered communication by offering a centralized hub where alumni can share opportunities, experiences, and guidance; institutes can manage and engage their student and alumni communities; and students can seek mentorship, career advice, and job or internship opportunities. AltHub aspires to create a collaborative ecosystem that not only preserves lifelong academic and professional connections but also empowers its users to grow, network, and succeed in their respective careers.

Class Diagram:



1. Entities (Classes) & Attributes

Each box in the diagram is an entity/class. Attributes are listed inside.

User

- **Attributes:**
User ID, First Name, Last Name, Gender, DOB, Phone, Email, Password, Languages, LinkedIn, Skills, Portfolio, Followers, Followings, Github, About.
 - **Behavior:** +login(),
+logout(),+updateProfile(),+followUser(userID),+sendMessage(userID,message)
-

Institute

- **Attributes:**
Institute ID, Name, Address, Contact no., Email, Website, Password, Active.
 - **Behavior:** +login(), +logout(),+addCourse(courseID),+organizeEvent(eventID)
-

Post

- **Attributes:**
PostID,User ID, Frame,Caption, Company Name, Profile Pic, Description, Date, Photos, Likes.
 - **Behavior:** +addpost(),+editPost(),+deletePost(),+likePost(),commentPost()
-

Event

- **Attributes:**
EventID,Organizer ID, Title, Description, Date, Venue.
 - **Behavior:** +addEvent(),+updateEvent(),+deleteEvent()
-

Notification

- **Attributes:**
NotificationID,User ID, Sender ID, Message, Date.
- **Behavior:** +newNotification(),+markAsRead(),+deleteNotification()

Message

- **Attributes:**
Conversation ID, Sender, Message, Timestamp.
 - **Behavior:** +newMessage(), +deleteMessage(), +editMessage()
-

Conversation

- **Attributes:**
ConversationIDMembers (Array).
 - **Behavior:** +newConversation(), +addMember(userID), +removeMember(userID)
-

Feedback

- **Attributes:**
FeedbackID, User ID, MessageID, Rating.
 - **Behavior:** +newfeedback(), +updateFeedback(), +deleteFeedback()
-

Experience

- **Attributes:**
ExperienceID, User ID, Company Name, Position, Join Date, End Date, Company Logo, Description.
 - **Behavior:** +updateExperience(), +addExperience(), +deleteExperience()
-

Education

- **Attributes:**
EducationID, User ID, Institute Name, CourseName, Join Date, End Date, College Logo.
 - **Behavior:** +updateEducation(), +addEducation(), +deleteEducation()
-

Course

- **Attributes:**
CourseID, Institute ID, Name, Stream, Duration.

- **Behavior:** +addCourse(),+updateCourse(),deleteCourse()

Company

- **Attributes:**
Company ID, Name, Address,Contact, Email, Website, Image.
 - **Behavior:** +addCompany(),+updateCompany(),+deleteCompany()
-

Admin

- **Attributes:**
AdminID,Name, Phone, Email, Password, Role, Token.
- **Behavior:** +updateAdmin(),suspendUser(userID),generateReport()

2. Relationships & Cardinalities

1. **User – Post**
 - **Relationship:** One User can create many Posts.
 - **Cardinality:** 1 : M
2. **User – Event**
 - **Relationship:** One User can organize many Events.
 - **Cardinality:** 1 : M
3. **User – Notification**
 - **Relationship:** One User can receive many Notifications, and one Notification is related to a specific user.
 - **Cardinality:** 1 : M
4. **User – Feedback**
 - **Relationship:** One User can give many Feedbacks.
 - **Cardinality:** 1 : M
5. **User – Experience**
 - **Relationship:** One User can have many Experiences.
 - **Cardinality:** 1 : M
6. **User – Education**
 - **Relationship:** One User can have many Education records.
 - **Cardinality:** 1 : M
7. **Institute – Course**
 - **Relationship:** One Institute can offer many Courses.
 - **Cardinality:** 1 : M
8. **User – Institute**
 - **Relationship:** A User is associated with one Institute, but an Institute can have many Users.
 - **Cardinality:** M : 1
9. **Company – Experience**
 - **Relationship:** A Company can be linked to many Experiences.
 - **Cardinality:** 1 : M
10. **Conversation – Message**
 - **Relationship:** A Conversation can have many Messages, but each Message belongs to one Conversation.
 - **Cardinality:** 1 : M
11. **Admin – Feedback**
 - **Relationship:** Admin oversees many Feedbacks.
 - **Cardinality:** 1 : M
12. **Admin – Experience**
 - **Relationship:** Admin manages many Experience records.
 - **Cardinality:** 1 : M
13. **Admin – Company**
 - **Relationship:** Admin can manage many Companies.
 - **Cardinality:** 1 : M

Thank You