**FAST ALUMNI MANAGEMENT SYSTEM**

DB PROJECT MID EVALUATION

MEMBERS:

22K-4504 Muhammad Ashir

22K-4471 Muhammad Ashar Ali

22K-4625 Sayal Baig

**DATA REQUIRED:**

• User\_ID

• User\_CNIC

• User\_FullName

• User\_NuID

• User\_DoB

• User\_EmailID

• User\_MobileNo

• User\_PasswordHashed

• User\_Campus

• User\_CurrentCountry

• User\_CurrentCity

• User\_Profile\_Picture

• User\_Role

• User\_IsActive

• User\_DateCreated

• User\_Lastupdated

• User\_Department

• Alumni\_ProfileID

• Alumni\_UserID

• Alumni\_Organization

• Alumni\_CurrentPosition

• Alumni\_LinkedInProfile

• Alumni\_Industry

• Alumni\_ProfessionalSummary

• Alumni\_PrivacySettings

• Student\_UserID

• Student\_CurrentYear

• Student\_CurrentSemester

• Student\_GPA

• Event\_ID

• Event\_Name

• Event\_Description

• Event\_Date

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• Event\_Time

• Event\_Location

• Event\_OrganizerID

• Event\_MaxParticipants

• Event\_RegistrationDeadline

• Event\_banner

• Event\_ParticipantCount

• Event\_CreatedDate

• Event\_Type

• Registration\_ID

• Registration\_EventID

• Registration\_UserID

• Registration\_Date

• Registration\_TicketNumber

• Registration\_Status

• Donation\_ID

• Donation\_UserID

• Donation\_Amount

• Donation\_PaymentMethod

• Donation\_TransactionID

• Donation\_Date

• Donation\_Note

• Job\_ID

• Job\_Type

• Job\_SalaryRange

• Job\_ExperienceLevel

• Job\_Title

• Job\_Description

• Job\_CompanyName

• Job\_Location

• Job\_Applicationlink

• Job\_PostedBy

• Job\_DatePosted

• Job\_deadline

• Mentorship\_ID

• Mentor\_ID

• Mentee\_ID

• Mentorship\_StartDate

• MentorShip\_EndDate

• Mentorship\_Objectives

• Mentorship\_status

• Feedback\_ID

• Feedback\_givenby

• Feedback\_receivedby

• Feedback\_Text

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• Feedback\_rating

• Feedback\_date

• News\_ID

• News\_title

• News\_Content

• News\_AuthorID

• News\_PostedDate

• NewsThumbnailImage

• News\_Tags

• Forum\_ID

• Forum\_Name

• Forum\_Description

• Forum\_Createdby

• Forum\_DateCreated

• Post\_ID

• Post\_ForumID

• Post\_PostedBy

• Post\_Content

• Post\_AttachmentURL

• Post\_Date

• Post\_Status

• Review\_ID

• Reviewer\_ID

• Reviewee\_ID

• Review\_Text

• Review\_Rating

• Review\_Date

• Report\_ID

• Report\_UserID

• Report\_GraduationYear

• Report\_Industry

• Report\_SalaryRange

• Report\_Date

• Project\_ID

• Project\_Name

• Project\_Description

• Project\_CreatedBy

• Project\_Collaborators

• Project\_StartDate

• Project\_Enddate

• Project\_Status

• Help\_ID

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• Help\_title

• Help\_Content

• Help\_Section

• Help\_LastUpdated

• Help\_Visibility

• Help\_Author

**Normalization Process**

**Normalizing to 1 NF:**

1NF requires:

* Each column contains atomic values (no multivalued attributes).
* Each column contains values of a single type.
* Each row is unique, identified by a primary key.

**Action for 1NF:**

* Identify repeating groups and multivalued attributes.
* Split them into separate tables.

**Analysis for 1NF:**

From the provided attributes, no repeating groups or multivalued attributes are evident. However, we need to ensure every table has a primary key and atomic values.

**Resultant Tables for 1NF:**

**User Table**  
| **User\_ID (PK)** | User\_CNIC | User\_FullName | User\_NuID | User\_DoB | User\_EmailID | User\_MobileNo | User\_PasswordHashed | User\_Campus | User\_CurrentCountry | User\_CurrentCity | User\_Profile\_Picture | User\_Role | User\_IsActive | User\_DateCreated | User\_LastUpdated | User\_Department |

**Alumni Table**  
| **Alumni\_ProfileID (PK)** | Alumni\_UserID (FK) | Alumni\_Organization | Alumni\_CurrentPosition | Alumni\_LinkedInProfile | Alumni\_Industry | Alumni\_ProfessionalSummary | Alumni\_PrivacySettings |

**Student Table**  
| **Student\_UserID (PK, FK)** | Student\_CurrentYear | Student\_CurrentSemester | Student\_GPA |

**Event Table**  
| **Event\_ID (PK)** | Event\_Name | Event\_Description | Event\_Date | Event\_Time | Event\_Location | Event\_OrganizerID | Event\_MaxParticipants | Event\_RegistrationDeadline | Event\_Banner | Event\_ParticipantCount | Event\_CreatedDate | Event\_Type |

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**Registration Table**  
| **Registration\_ID (PK)** | Registration\_EventID (FK) | Registration\_UserID (FK) | Registration\_Date | Registration\_TicketNumber | Registration\_Status |

**Donation Table**  
| **Donation\_ID (PK)** | Donation\_UserID (FK) | Donation\_Amount | Donation\_PaymentMethod | Donation\_TransactionID | Donation\_Date | Donation\_Note |

**Job Table**  
| **Job\_ID (PK)** | Job\_Type | Job\_SalaryRange | Job\_ExperienceLevel | Job\_Title | Job\_Description | Job\_CompanyName | Job\_Location | Job\_Applicationlink | Job\_PostedBy | Job\_DatePosted | Job\_Deadline |

**Mentorship Table**  
| **Mentorship\_ID (PK)** | Mentor\_ID (FK) | Mentee\_ID (FK) | Mentorship\_StartDate | Mentorship\_EndDate | Mentorship\_Status |

**Feedback Table**  
| **Feedback\_ID (PK)** | Feedback\_GivenBy (FK) | Feedback\_ReceivedBy (FK) | Feedback\_Text | Feedback\_Rating | Feedback\_Date |

**News Table**  
| **News\_ID (PK)** | News\_Title | News\_Content | News\_AuthorID (FK) | News\_PostedDate | News\_ThumbnailImage | News\_Tags |

**Forum Table**  
| **Forum\_ID (PK)** | Forum\_Name | Forum\_Description | Forum\_CreatedBy (FK) | Forum\_DateCreated |

**Post Table**  
| **Post\_ID (PK)** | Post\_ForumID (FK) | Post\_PostedBy (FK) | Post\_Content | Post\_AttachmentURL | Post\_Date | Post\_Status |

**Review Table**  
| **Review\_ID (PK)** | Reviewer\_ID (FK) | Reviewee\_ID (FK) | Review\_Text | Review\_Rating | Review\_Date |

**Report Table**  
| **Report\_ID (PK)** | Report\_UserID (FK) | Report\_GraduationYear | Report\_Industry | Report\_SalaryRange | Report\_Date |

**Project Table**  
| **Project\_ID (PK)** | Project\_Name | Project\_Description | Project\_CreatedBy (FK) | Project\_Collaborators | Project\_StartDate | Project\_EndDate | Project\_Status |

**Help Table**  
| **Help\_ID (PK)** | Help\_Title | Help\_Content | Help\_Section | Help\_LastUpdated | Help\_Visibility | Help\_Author (FK) |

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**Normalizing 2 NF:**

2NF requires:

* The table is in 1NF.
* All non-key attributes are fully functionally dependent on the primary key (no partial dependency).

**Action for 2NF:**

* Identify and remove partial dependencies by creating new tables for attributes only partially dependent on composite keys.

##### ****Analysis for 2NF:****

* TableFeedback have partial dependencies on composite keys.

##### ****Resultant Tables for 2NF:****

**Feedback Table**  
| **Feedback\_ID (PK)** | Feedback\_GivenBy (FK) | Feedback\_ReceivedBy (FK) |

**FeedbackDetails Table**  
| **Feedback\_ID (PK, FK)** | Feedback\_Text | Feedback\_Rating | Feedback\_Date |

**Normalizing to 3 NF:**

**3NF requires:**

* The table is in **2NF**.
* No **transitive dependency** (non-key attributes depend only on the primary key).

**Action for 3NF:**

* Remove transitive dependencies by creating new tables.

**Analysis for 3NF:**

* In the **User Table**, attributes like User\_CurrentCountry and User\_CurrentCity are directly related to the user and not dependent on any other attribute. These are not transitive dependencies and can remain in the **User Table**.
* However, in the **Project Table**, the attribute Project\_Collaborators introduced a **transitive dependency**. The collaborators' details (e.g., roles, statuses) depend not only on the Project\_ID but also on individual collaborators themselves.

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**Resolution:**

* To remove this transitive dependency, the Project\_Collaborators attribute was normalized into a separate **Collaboration Table**.
  + The **Project Table** now only contains project-specific details.
  + The new **Collaboration Table** represents the many-to-many relationship between Projects and Users and includes attributes like Collaboration\_Role, Collaboration\_JoinDate, and Collaboration\_Status.

**Project Table**

| **Project\_ID (PK)** | Project\_Name | Project\_Description | Project\_CreatedBy (FK) | Project\_Collaborators | Project\_StartDate | Project\_EndDate | Project\_Status |

**Collaboration Table**

| **Collaboration\_ID (PK)** | Collaboration\_ProjectID | Collaboration\_UserID | Collaboration\_Role | Collaboration\_JoinDate | Collaboration\_Status |

**BCNF:**

BCNF requires:

* The table is in 3NF.
* Every determinant is a candidate key.

**Action for BCNF:**

* Further split tables if any determinant exists that isn't a candidate key.

##### ****Analysis for BCNF:****

Most tables already satisfy BCNF as primary keys are clearly defined. If any anomalies arise, further decomposition might be necessary.

##### ****Resultant Tables for BCNF:****

No additional changes beyond 3NF are required.

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**FINAL ENTITIES AND ATTRIBUTES:**

#### **1. User Table**

| **User\_ID (PK)** | User\_CNIC | User\_FullName | User\_NuID | User\_DoB | User\_EmailID | User\_MobileNo | User\_PasswordHashed | User\_Campus | User\_Profile\_Picture | User\_Role | User\_IsActive | User\_DateCreated | User\_LastUpdated | User\_Department | User\_CurrentCountry | User\_CurrentCity |

#### **2. Alumni Table**

| **Alumni\_ProfileID (PK)** | Alumni\_UserID (FK) | Alumni\_Organization | Alumni\_CurrentPosition | Alumni\_LinkedInProfile | Alumni\_Industry | Alumni\_ProfessionalSummary | Alumni\_PrivacySettings |

#### **3. Student Table**

| **Student\_UserID (PK, FK)** | Student\_CurrentYear | Student\_CurrentSemester | Student\_GPA |

#### **4. Event Table**

| **Event\_ID (PK)** | Event\_Name | Event\_Description | Event\_Date | Event\_Time | Event\_Location | Event\_OrganizerID (FK) | Event\_MaxParticipants | Event\_RegistrationDeadline | Event\_Banner | Event\_ParticipantCount | Event\_CreatedDate | Event\_Type |

#### **5. Registration Table**

| **Registration\_ID (PK)** | Registration\_EventID (FK) | Registration\_UserID (FK) | Registration\_Status | Registration\_Date

#### **6. Donation Table**

| **Donation\_ID (PK)** | Donation\_UserID (FK) | Donation\_Title | Donation\_description | Donation\_TargetedAmount | Donation\_AmountRaised | Donation\_Date | Donation\_deadline | Donation\_Status | Donation\_Category

#### **7. Job Table**

| **Job\_ID (PK)** | Job\_Type | Job\_SalaryRange | Job\_ExperienceLevel | Job\_Title | Job\_Description | Job\_CompanyName | Job\_Location | Job\_ApplicationLink | Job\_PostedBy (FK) | Job\_DatePosted | Job\_Deadline | Job\_Tags

#### **8. Mentorship Table**

| **Mentorship\_ID (PK)** | Mentor\_ID (FK) | Mentee\_ID (FK) | Mentorship\_StartDate | Mentorship\_EndDate | Mentorship\_Status | Mentorship\_Objectives | Mentorship Notes

#### **9. Feedback Table**

| **Feedback\_ID (PK)** | Feedback\_GivenBy (FK) | Feedback\_ReceivedBy (FK) |

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#### **10. FeedbackDetails Table**

| **Feedback\_ID (PK, FK)** | Feedback\_Text | Feedback\_Rating | Feedback\_Date |

#### **11. News Table**

| **News\_ID (PK)** | News\_Title | News\_Content | News\_AuthorID (FK) | News\_PostedDate | News\_ThumbnailImage | News\_Tags |

#### **12. Forum Table**

| **Forum\_ID (PK)** | Forum\_Name | Forum\_Description | Forum\_CreatedBy (FK) | Forum\_DateCreated |

#### **13. Post Table**

| **Post\_ID (PK)** | Post\_ForumID (FK) | Post\_PostedBy (FK) | Post\_Content | Post\_AttachmentURL | Post\_Date | Post\_Status | Post\_bannerImage |

#### **14. Review Table**

| **Review\_ID (PK)** | Reviewer\_ID (FK) | Reviewee\_ID (FK) | Review\_Text | Review\_Rating | Review\_Date |

#### **15. Report Table**

| **Report\_ID (PK)** | Report\_UserID (FK) | Report\_GraduationYear | Report\_Industry | Report\_SalaryRange | Report\_Date | Report\_Image |

#### **16. Project Table**

| **Project\_ID (PK)** | Project\_Name | Project\_Description | Project\_CreatedBy (FK) | Project\_StartDate | Project\_EndDate | Project\_Status |

#### **17. Collaboration Table**

| **Collaboration\_ID (PK)** | Collaboration\_ProjectID | Collaboration\_UserID | Collaboration\_Role | Collaboration\_JoinDate | Collaboration\_Status |

#### **18. Help Table**

| **Help\_ID (PK)** | Help\_Title | Help\_Content | Help\_Section | Help\_LastUpdated | Help\_Visibility | Help\_Author (FK) |

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**RELATIONSHIPS AND MULTIPLICITY:**

#### **1. User ↔ Alumni**

* **Role:** Alumni extends User.
* **Description:** Each alumni is a user, but not every user is an alumni. Alumni-specific data is stored in the Alumni table.
* **Foreign Key:** Alumni\_UserID
* **References From:** User.User\_ID
* **Multiplicity:**
  + **1 User : 0 or 1 Alumni**
  + A user can have at most one alumni profile.

#### **2. User ↔ Student**

* **Role:** Student extends User.
* **Description:** Students are users with specific academic attributes like year, semester, and GPA.
* **Foreign Key:** Student\_UserID
* **References From:** User.User\_ID
* **Multiplicity:**
  + **1 User : 0 or 1 Student**
  + A user can be either a student or an alumni, but not both simultaneously.

#### **3. User ↔ Event (Organizer)**

* **Role:** User as an event organizer.
* **Description:** A user can organize multiple events, but an event can have only one organizer.
* **Foreign Key:** Event\_OrganizerID
* **References From:** User.User\_ID
* **Multiplicity:**
  + **1 User : 0 or Many Events**
  + A user can organize multiple events, but each event has only one organizer.

#### **4. Event ↔ Registration**

* **Role:** Registration links users to events.
* **Description:** A user can register for multiple events, and each event can have many registrations.
* **Foreign Key:**
  + Registration\_EventID → Event.Event\_ID
  + Registration\_UserID → User.User\_ID
* **Multiplicity:**
  + **1 Event : 0 or Many Registrations**
  + **1 User : 0 or Many Registrations**

#### **5. User ↔ Donation**

* **Role:** User as a donor.
* **Description:** A user can make multiple donations.

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* **Foreign Key:** Donation\_UserID
* **References From:** User.User\_ID
* **Multiplicity:**
  + **1 User : 0 or Many Donations**

#### **6. User ↔ Job (PostedBy)**

* **Role:** User as a job poster.
* **Description:** A user can post multiple jobs, and each job is posted by one user.
* **Foreign Key:** Job\_PostedBy
* **References From:** User.User\_ID
* **Multiplicity:**
  + **1 User : 0 or Many Jobs**

#### **7. User ↔ Mentorship (Mentor/Mentee)**

* **Role:** Mentor and Mentee in mentorship.
* **Description:** A mentorship involves one mentor and one mentee, both of whom are users.
* **Foreign Keys:**
  + Mentor\_ID → User.User\_ID
  + Mentee\_ID → User.User\_ID
* **Multiplicity:**
  + **1 Mentor (User) : 0 or Many Mentorships**
  + **1 Mentee (User) : 0 or Many Mentorships**

#### **8. User ↔ Feedback (GivenBy/ReceivedBy)**

* **Role:** Feedback links users who provide and receive feedback.
* **Description:** Users can exchange feedback with each other.
* **Foreign Keys:**
  + Feedback\_GivenBy → User.User\_ID
  + Feedback\_ReceivedBy → User.User\_ID
* **Multiplicity:**
  + **1 User : 0 or Many Feedbacks Given**
  + **1 User : 0 or Many Feedbacks Received**

#### **9. Feedback ↔ FeedbackDetails**

* **Role:** Details enrich feedback.
* **Description:** Each feedback has additional details like text and rating stored in a separate table.
* **Foreign Key:** Feedback\_ID
* **References From:** Feedback.Feedback\_ID
* **Multiplicity:**
  + **1 Feedback : 1 FeedbackDetails**

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#### **10. User ↔ News**

* **Role:** User as the author of news.
* **Description:** A user can post multiple news items, and each news item is authored by one user.
* **Foreign Key:** News\_AuthorID
* **References From:** User.User\_ID
* **Multiplicity:**
  + **1 User : 0 or Many News Items**

#### **11. Forum ↔ Post**

* **Role:** Forum as the container of posts.
* **Description:** A forum contains multiple posts, and each post belongs to one forum.
* **Foreign Key:** Post\_ForumID
* **References From:** Forum.Forum\_ID
* **Multiplicity:**
  + **1 Forum : 0 or Many Posts**

#### **12. User ↔ Post**

* **Role:** User as the creator of posts.
* **Description:** A user can create multiple posts, and each post is authored by one user.
* **Foreign Key:** Post\_PostedBy
* **References From:** User.User\_ID
* **Multiplicity:**
  + **1 User : 0 or Many Posts**

#### **13. User ↔ Peer Review**

* **Role:** Reviewer and Reviewee in peer reviews.
* **Description:** Users can review each other.
* **Foreign Keys:**
  + Reviewer\_ID → User.User\_ID
  + Reviewee\_ID → User.User\_ID
* **Multiplicity:**
  + **1 Reviewer (User) : 0 or Many Peer Reviews**
  + **1 Reviewee (User) : 0 or Many Peer Reviews**

#### **14. User ↔ Salary Report**

* **Role:** User as the reporter.
* **Description:** A user can submit multiple salary reports.
* **Foreign Key:** Report\_UserID
* **References From:** User.User\_ID

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* **Multiplicity:**
  + **1 User : 0 or Many Salary Reports**

#### **15. Help ↔ User**

* **Role:** User as the author of help content.
* **Description:** A user can author help entries.
* **Foreign Key:** Help\_Author
* **References From:** User.User\_ID
* **Multiplicity:**
  + **1 User : 0 or Many Help Entries**

#### **16. Project ↔ Collaboration**

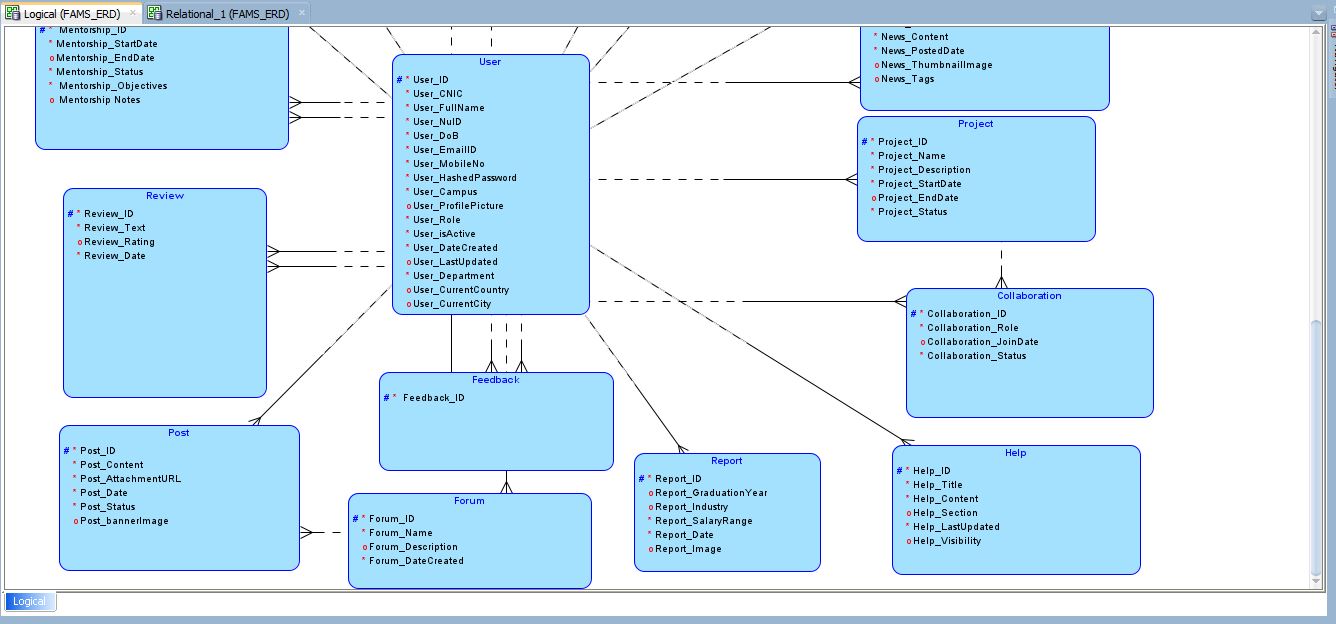
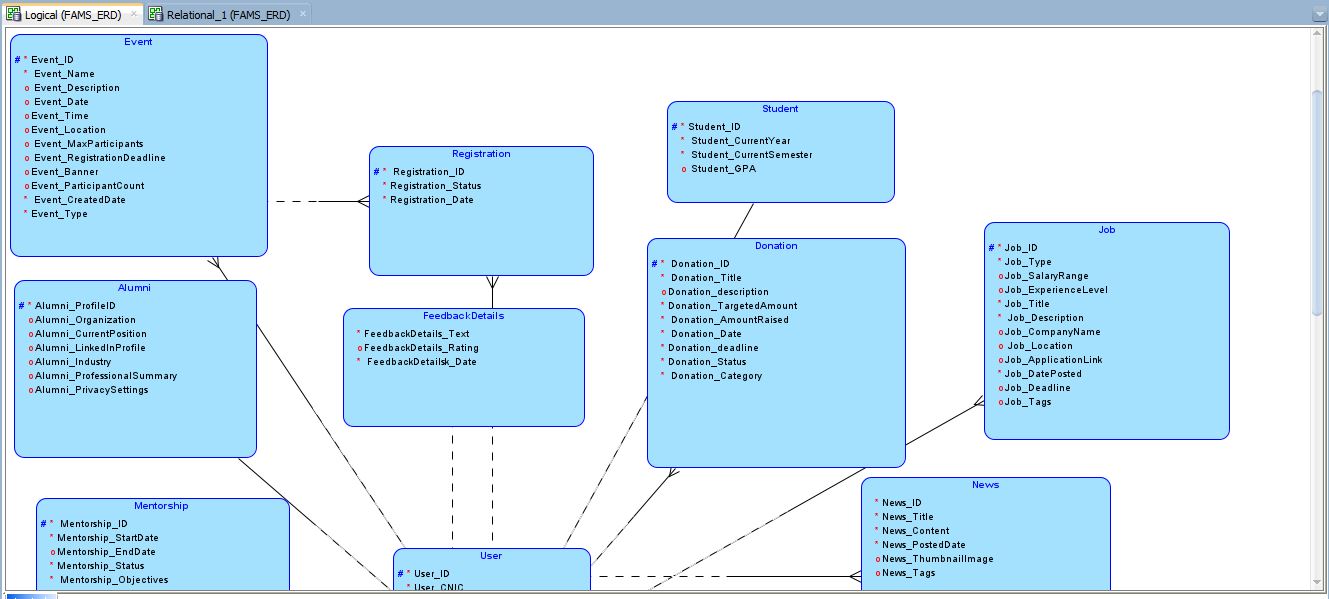
* **Role:** Collaboration links projects to users as collaborators.
* **Description:** A project can have multiple collaborators, and a user can collaborate on multiple projects.
* **Foreign Key:**
  + Collaboration\_ProjectID → Project.Project\_ID
* **Multiplicity:**
  + **1 Project : 0 or Many Collaborations**

#### **17. User ↔ Collaboration**

* **Role:** Users are collaborators in projects.
* **Description:** A user can have multiple collaborations across projects.
* **Foreign Key:**
  + Collaboration\_UserID → User.User\_ID
* **Multiplicity:**
  + **1 User : 0 or Many Collaborations**

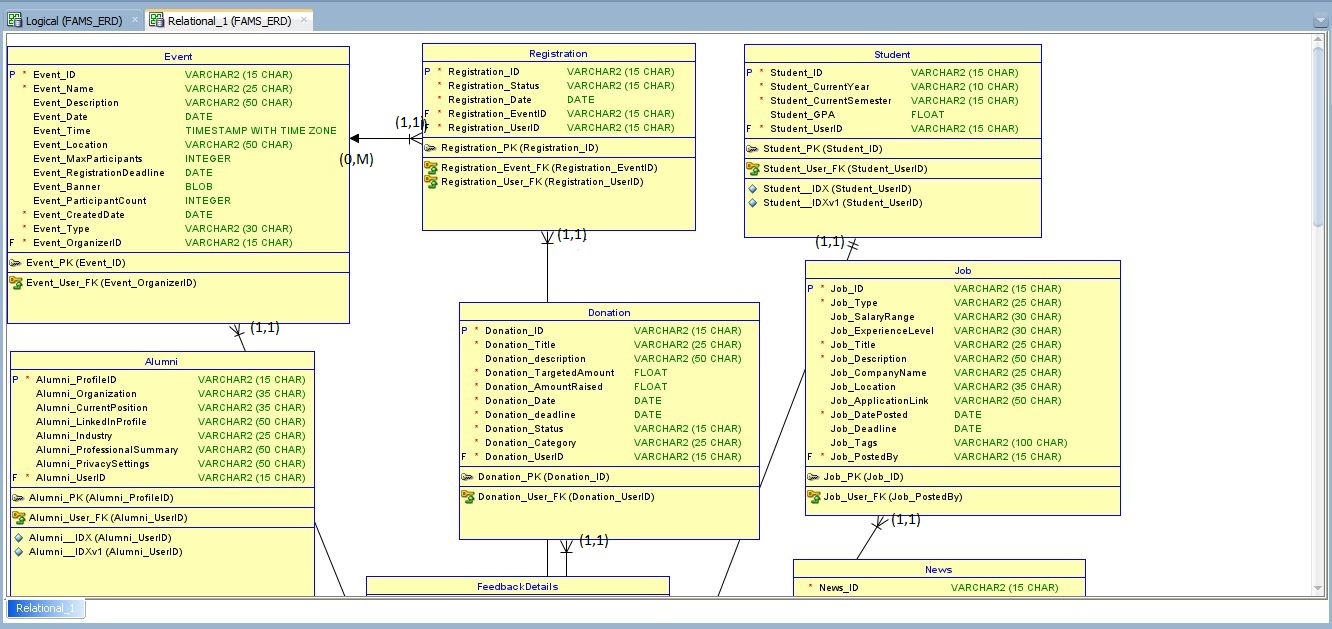
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ENTITIES BLUE PRINT DATA MODELER\_

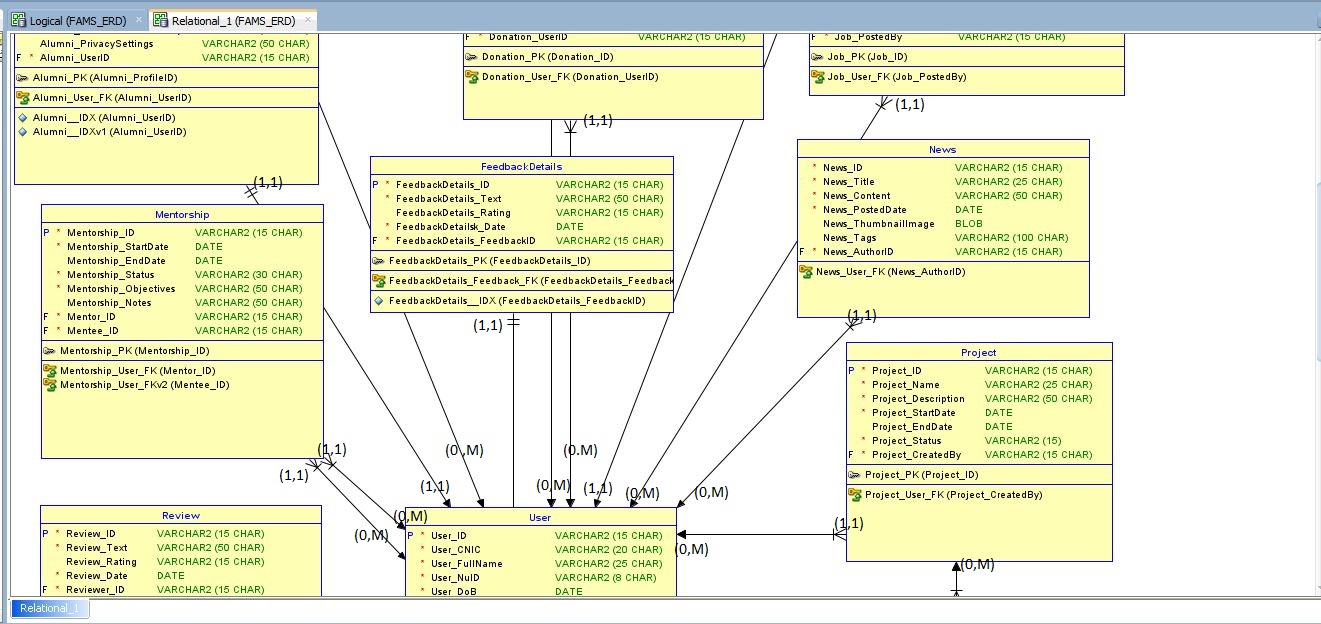
**ENTITIES BLUE PRINT IN DATA MODELER:**

****

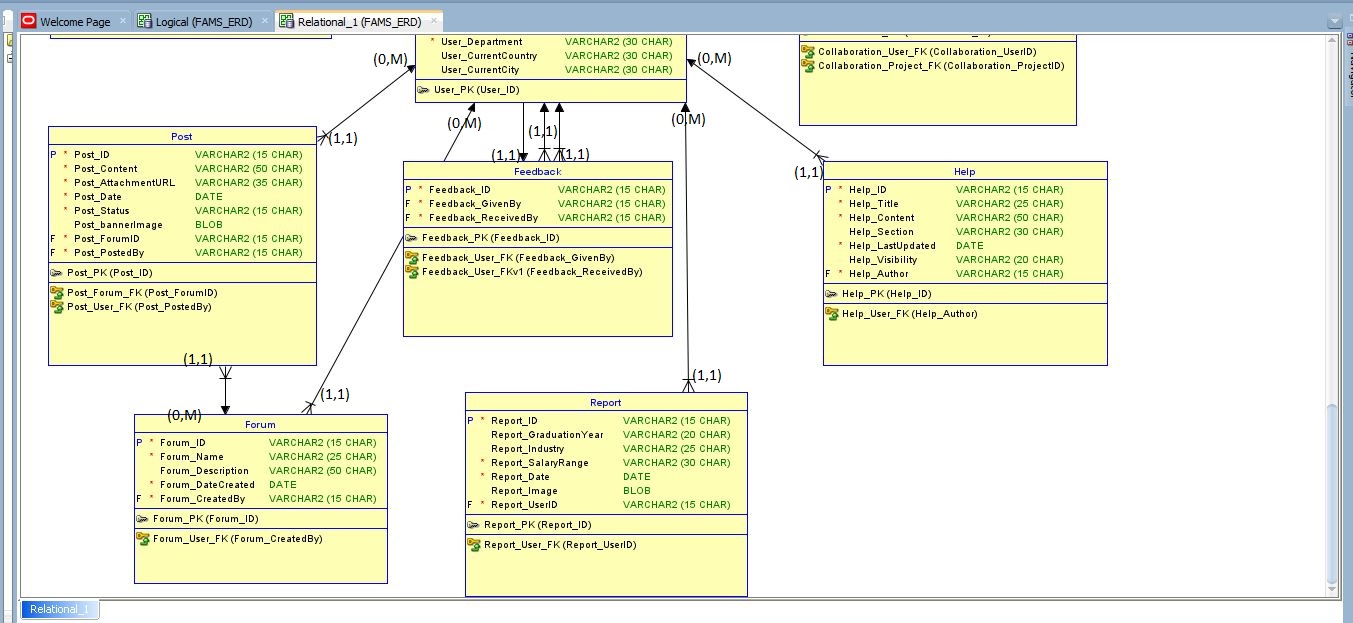
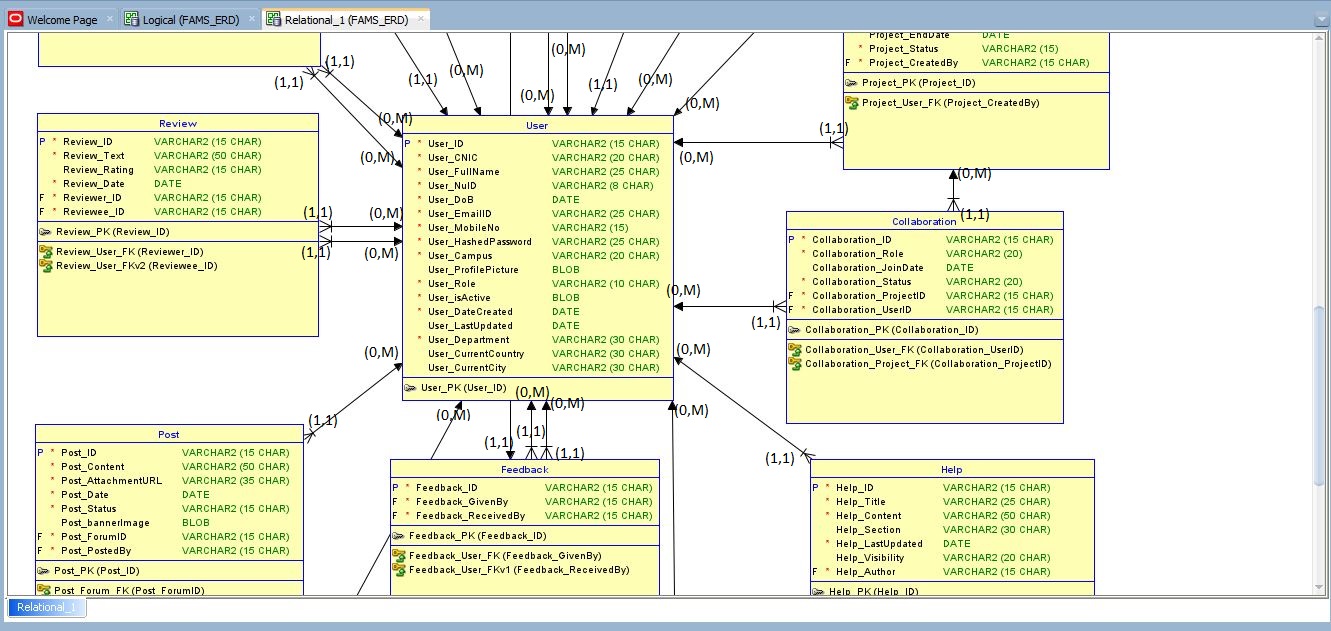
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**ER-DIAGRAM WITH CARDINALITY CONSTRAINT:**

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**GENERATED SCHEMA:**

**-- Generated by Oracle SQL Developer Data Modeler 23.1.0.087.0806**

**-- at: 2024-11-20 22:44:43 PKT**

**-- site: Oracle Database 11g**

**-- type: Oracle Database 11g**

**-- predefined type, no DDL - MDSYS.SDO\_GEOMETRY**

**-- predefined type, no DDL - XMLTYPE**

**CREATE TABLE alumni (**

**alumni\_profileid VARCHAR2(15 CHAR) NOT NULL,**

**alumni\_organization VARCHAR2(35 CHAR),**

**alumni\_currentposition VARCHAR2(35 CHAR),**

**alumni\_linkedinprofile VARCHAR2(50 CHAR),**

**alumni\_industry VARCHAR2(25 CHAR),**

**alumni\_professionalsummary VARCHAR2(50 CHAR),**

**alumni\_privacysettings VARCHAR2(50 CHAR),**

**alumni\_userid VARCHAR2(15 CHAR) NOT NULL**

**);**

**CREATE UNIQUE INDEX alumni\_\_idx ON**

**alumni (**

**alumni\_userid**

**ASC );**

**CREATE UNIQUE INDEX alumni\_\_idxv1 ON**

**alumni (**

**alumni\_userid**

**ASC );**

**ALTER TABLE alumni ADD CONSTRAINT alumni\_pk PRIMARY KEY ( alumni\_profileid );**

**CREATE TABLE collaboration (**

**collaboration\_id VARCHAR2(15 CHAR) NOT NULL,**

**collaboration\_role VARCHAR2(20) NOT NULL,**

**collaboration\_joindate DATE,**

**collaboration\_status VARCHAR2(20) NOT NULL,**

**collaboration\_projectid VARCHAR2(15 CHAR) NOT NULL,**

**collaboration\_userid VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE collaboration ADD CONSTRAINT collaboration\_pk PRIMARY KEY ( collaboration\_id );**

**CREATE TABLE donation (**

**donation\_id VARCHAR2(15 CHAR) NOT NULL,**

**donation\_title VARCHAR2(25 CHAR) NOT NULL,**

**donation\_description VARCHAR2(50 CHAR),**

**donation\_targetedamount FLOAT NOT NULL,**

**donation\_amountraised FLOAT NOT NULL,**

**donation\_date DATE NOT NULL,**

**donation\_deadline DATE NOT NULL,**

**donation\_status VARCHAR2(15 CHAR) NOT NULL,**

**donation\_category VARCHAR2(25 CHAR) NOT NULL,**

**donation\_userid VARCHAR2(15 CHAR) NOT NULL**

**);**

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**ALTER TABLE donation ADD CONSTRAINT donation\_pk PRIMARY KEY ( donation\_id );**

**CREATE TABLE event (**

**event\_id VARCHAR2(15 CHAR) NOT NULL,**

**event\_name VARCHAR2(25 CHAR) NOT NULL,**

**event\_description VARCHAR2(50 CHAR),**

**event\_date DATE,**

**event\_time TIMESTAMP WITH TIME ZONE,**

**event\_location VARCHAR2(50 CHAR),**

**event\_maxparticipants INTEGER,**

**event\_registrationdeadline DATE,**

**event\_banner BLOB,**

**event\_participantcount INTEGER,**

**event\_createddate DATE NOT NULL,**

**event\_type VARCHAR2(30 CHAR) NOT NULL,**

**event\_organizerid VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE event ADD CONSTRAINT event\_pk PRIMARY KEY ( event\_id );**

**CREATE TABLE feedback (**

**feedback\_id VARCHAR2(15 CHAR) NOT NULL,**

**feedback\_givenby VARCHAR2(15 CHAR) NOT NULL,**

**feedback\_receivedby VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE feedback ADD CONSTRAINT feedback\_pk PRIMARY KEY ( feedback\_id );**

**CREATE TABLE feedbackdetails (**

**feedbackdetails\_id VARCHAR2(15 CHAR) NOT NULL,**

**feedbackdetails\_text VARCHAR2(50 CHAR) NOT NULL,**

**feedbackdetails\_rating VARCHAR2(15 CHAR),**

**feedbackdetailsk\_date DATE NOT NULL,**

**feedbackdetails\_feedbackid VARCHAR2(15 CHAR) NOT NULL**

**);**

**CREATE UNIQUE INDEX feedbackdetails\_\_idx ON**

**feedbackdetails (**

**feedbackdetails\_feedbackid**

**ASC );**

**ALTER TABLE feedbackdetails ADD CONSTRAINT feedbackdetails\_pk PRIMARY KEY ( feedbackdetails\_id );**

**CREATE TABLE forum (**

**forum\_id VARCHAR2(15 CHAR) NOT NULL,**

**forum\_name VARCHAR2(25 CHAR) NOT NULL,**

**forum\_description VARCHAR2(50 CHAR),**

**forum\_datecreated DATE NOT NULL,**

**forum\_createdby VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE forum ADD CONSTRAINT forum\_pk PRIMARY KEY ( forum\_id );**

**CREATE TABLE help (**

**help\_id VARCHAR2(15 CHAR) NOT NULL,**

**help\_title VARCHAR2(25 CHAR) NOT NULL,**

**help\_content VARCHAR2(50 CHAR) NOT NULL,**

**help\_section VARCHAR2(30 CHAR),**

**help\_lastupdated DATE NOT NULL,**

**help\_visibility VARCHAR2(20 CHAR),**

**help\_author VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE help ADD CONSTRAINT help\_pk PRIMARY KEY ( help\_id );**

**CREATE TABLE job (**

**job\_id VARCHAR2(15 CHAR) NOT NULL,**

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**job\_type VARCHAR2(25 CHAR) NOT NULL,**

**job\_salaryrange VARCHAR2(30 CHAR),**

**job\_experiencelevel VARCHAR2(30 CHAR),**

**job\_title VARCHAR2(25 CHAR) NOT NULL,**

**job\_description VARCHAR2(50 CHAR) NOT NULL,**

**job\_companyname VARCHAR2(25 CHAR),**

**job\_location VARCHAR2(35 CHAR),**

**job\_applicationlink VARCHAR2(50 CHAR),**

**job\_dateposted DATE NOT NULL,**

**job\_deadline DATE,**

**job\_tags VARCHAR2(100 CHAR),**

**job\_postedby VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE job ADD CONSTRAINT job\_pk PRIMARY KEY ( job\_id );**

**CREATE TABLE mentorship (**

**mentorship\_id VARCHAR2(15 CHAR) NOT NULL,**

**mentorship\_startdate DATE NOT NULL,**

**mentorship\_enddate DATE,**

**mentorship\_status VARCHAR2(30 CHAR) NOT NULL,**

**mentorship\_objectives VARCHAR2(50 CHAR) NOT NULL,**

**mentorship\_notes VARCHAR2(50 CHAR),**

**mentor\_id VARCHAR2(15 CHAR) NOT NULL,**

**mentee\_id VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE mentorship ADD CONSTRAINT mentorship\_pk PRIMARY KEY ( mentorship\_id );**

**CREATE TABLE news (**

**news\_id VARCHAR2(15 CHAR) NOT NULL,**

**news\_title VARCHAR2(25 CHAR) NOT NULL,**

**news\_content VARCHAR2(50 CHAR) NOT NULL,**

**news\_posteddate DATE NOT NULL,**

**news\_thumbnailimage BLOB,**

**news\_tags VARCHAR2(100 CHAR),**

**news\_authorid VARCHAR2(15 CHAR) NOT NULL**

**);**

**CREATE TABLE post (**

**post\_id VARCHAR2(15 CHAR) NOT NULL,**

**post\_content VARCHAR2(50 CHAR) NOT NULL,**

**post\_attachmenturl VARCHAR2(35 CHAR) NOT NULL,**

**post\_date DATE NOT NULL,**

**post\_status VARCHAR2(15 CHAR) NOT NULL,**

**post\_bannerimage BLOB,**

**post\_forumid VARCHAR2(15 CHAR) NOT NULL,**

**post\_postedby VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE post ADD CONSTRAINT post\_pk PRIMARY KEY ( post\_id );**

**CREATE TABLE project (**

**project\_id VARCHAR2(15 CHAR) NOT NULL,**

**project\_name VARCHAR2(25 CHAR) NOT NULL,**

**project\_description VARCHAR2(50 CHAR) NOT NULL,**

**project\_startdate DATE NOT NULL,**

**project\_enddate DATE,**

**project\_status VARCHAR2(15) NOT NULL,**

**project\_createdby VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE project ADD CONSTRAINT project\_pk PRIMARY KEY ( project\_id );**

**CREATE TABLE registration (**

**registration\_id VARCHAR2(15 CHAR) NOT NULL,**

**registration\_status VARCHAR2(15 CHAR) NOT NULL,**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_GENERATED SCHEMA\_

**registration\_date DATE NOT NULL,**

**registration\_eventid VARCHAR2(15 CHAR) NOT NULL,**

**registration\_userid VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE registration ADD CONSTRAINT registration\_pk PRIMARY KEY ( registration\_id );**

**CREATE TABLE report (**

**report\_id VARCHAR2(15 CHAR) NOT NULL,**

**report\_graduationyear VARCHAR2(20 CHAR),**

**report\_industry VARCHAR2(25 CHAR),**

**report\_salaryrange VARCHAR2(30 CHAR) NOT NULL,**

**report\_date DATE NOT NULL,**

**report\_image BLOB,**

**report\_userid VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE report ADD CONSTRAINT report\_pk PRIMARY KEY ( report\_id );**

**CREATE TABLE review (**

**review\_id VARCHAR2(15 CHAR) NOT NULL,**

**review\_text VARCHAR2(50 CHAR) NOT NULL,**

**review\_rating VARCHAR2(15 CHAR),**

**review\_date DATE NOT NULL,**

**reviewer\_id VARCHAR2(15 CHAR) NOT NULL,**

**reviewee\_id VARCHAR2(15 CHAR) NOT NULL**

**);**

**ALTER TABLE review ADD CONSTRAINT review\_pk PRIMARY KEY ( review\_id );**

**CREATE TABLE student (**

**student\_id VARCHAR2(15 CHAR) NOT NULL,**

**student\_currentyear VARCHAR2(10 CHAR) NOT NULL,**

**student\_currentsemester VARCHAR2(15 CHAR) NOT NULL,**

**student\_gpa FLOAT,**

**student\_userid VARCHAR2(15 CHAR) NOT NULL**

**);**

**CREATE UNIQUE INDEX student\_\_idx ON**

**student (**

**student\_userid**

**ASC );**

**CREATE UNIQUE INDEX student\_\_idxv1 ON**

**student (**

**student\_userid**

**ASC );**

**ALTER TABLE student ADD CONSTRAINT student\_pk PRIMARY KEY ( student\_id );**

**CREATE TABLE "User" (**

**user\_id VARCHAR2(15 CHAR) NOT NULL,**

**user\_cnic VARCHAR2(20 CHAR) NOT NULL,**

**user\_fullname VARCHAR2(25 CHAR) NOT NULL,**

**user\_nuid VARCHAR2(8 CHAR) NOT NULL,**

**user\_dob DATE NOT NULL,**

**user\_emailid VARCHAR2(25 CHAR) NOT NULL,**

**user\_mobileno VARCHAR2(15) NOT NULL,**

**user\_hashedpassword VARCHAR2(25 CHAR) NOT NULL,**

**user\_campus VARCHAR2(20 CHAR) NOT NULL,**

**user\_profilepicture BLOB,**

**user\_role VARCHAR2(10 CHAR) NOT NULL,**

**user\_isactive BLOB NOT NULL,**

**user\_datecreated DATE NOT NULL,**

**user\_lastupdated DATE,**

**user\_department VARCHAR2(30 CHAR) NOT NULL,**

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**user\_currentcountry VARCHAR2(30 CHAR),**

**user\_currentcity VARCHAR2(30 CHAR)**

**);**

**ALTER TABLE "User" ADD CONSTRAINT user\_pk PRIMARY KEY ( user\_id );**

**ALTER TABLE alumni**

**ADD CONSTRAINT alumni\_user\_fk FOREIGN KEY ( alumni\_userid )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE collaboration**

**ADD CONSTRAINT collaboration\_project\_fk FOREIGN KEY ( collaboration\_projectid )**

**REFERENCES project ( project\_id );**

**ALTER TABLE collaboration**

**ADD CONSTRAINT collaboration\_user\_fk FOREIGN KEY ( collaboration\_userid )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE donation**

**ADD CONSTRAINT donation\_user\_fk FOREIGN KEY ( donation\_userid )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE event**

**ADD CONSTRAINT event\_user\_fk FOREIGN KEY ( event\_organizerid )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE feedback**

**ADD CONSTRAINT feedback\_user\_fk FOREIGN KEY ( feedback\_givenby )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE feedback**

**ADD CONSTRAINT feedback\_user\_fkv1 FOREIGN KEY ( feedback\_receivedby )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE feedbackdetails**

**ADD CONSTRAINT feedbackdetails\_feedback\_fk FOREIGN KEY ( feedbackdetails\_feedbackid )**

**REFERENCES feedback ( feedback\_id );**

**ALTER TABLE forum**

**ADD CONSTRAINT forum\_user\_fk FOREIGN KEY ( forum\_createdby )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE help**

**ADD CONSTRAINT help\_user\_fk FOREIGN KEY ( help\_author )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE job**

**ADD CONSTRAINT job\_user\_fk FOREIGN KEY ( job\_postedby )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE mentorship**

**ADD CONSTRAINT mentorship\_user\_fk FOREIGN KEY ( mentor\_id )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE mentorship**

**ADD CONSTRAINT mentorship\_user\_fkv2 FOREIGN KEY ( mentee\_id )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE news**

**ADD CONSTRAINT news\_user\_fk FOREIGN KEY ( news\_authorid )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE post**

**ADD CONSTRAINT post\_forum\_fk FOREIGN KEY ( post\_forumid )**

**REFERENCES forum ( forum\_id );**

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**ALTER TABLE post**

**ADD CONSTRAINT post\_user\_fk FOREIGN KEY ( post\_postedby )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE project**

**ADD CONSTRAINT project\_user\_fk FOREIGN KEY ( project\_createdby )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE registration**

**ADD CONSTRAINT registration\_event\_fk FOREIGN KEY ( registration\_eventid )**

**REFERENCES event ( event\_id );**

**ALTER TABLE registration**

**ADD CONSTRAINT registration\_user\_fk FOREIGN KEY ( registration\_userid )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE report**

**ADD CONSTRAINT report\_user\_fk FOREIGN KEY ( report\_userid )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE review**

**ADD CONSTRAINT review\_user\_fk FOREIGN KEY ( reviewer\_id )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE review**

**ADD CONSTRAINT review\_user\_fkv2 FOREIGN KEY ( reviewee\_id )**

**REFERENCES "User" ( user\_id );**

**ALTER TABLE student**

**ADD CONSTRAINT student\_user\_fk FOREIGN KEY ( student\_userid )**

**REFERENCES "User" ( user\_id );**

**-- Oracle SQL Developer Data Modeler Summary Report:**

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**-- CREATE TABLE 18**

**-- CREATE INDEX 5**

**-- ALTER TABLE 40**

**-- CREATE VIEW 0**

**-- ALTER VIEW 0**

**-- CREATE PACKAGE 0**

**-- CREATE PACKAGE BODY 0**

**-- CREATE PROCEDURE 0**

**-- CREATE FUNCTION 0**

**-- CREATE TRIGGER 0**

**-- ALTER TRIGGER 0**

**-- CREATE COLLECTION TYPE 0**

**-- CREATE STRUCTURED TYPE 0**

**-- CREATE STRUCTURED TYPE BODY 0**

**-- CREATE CLUSTER 0**

**-- CREATE CONTEXT 0**

**-- CREATE DATABASE 0**

**-- CREATE DIMENSION 0**

**-- CREATE DIRECTORY 0**

**-- CREATE DISK GROUP 0**

**-- CREATE ROLE 0**

**-- CREATE ROLLBACK SEGMENT 0**

**-- CREATE SEQUENCE 0**

**-- CREATE MATERIALIZED VIEW 0**

**-- CREATE MATERIALIZED VIEW LOG 0**

**-- CREATE SYNONYM 0**

**-- CREATE TABLESPACE 0**

**-- CREATE USER 0**

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**-- DROP TABLESPACE 0**

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**-- DROP DATABASE 0**

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**-- REDACTION POLICY 0**

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**-- ORDS DROP SCHEMA 0**

**-- ORDS ENABLE SCHEMA 0**

**-- ORDS ENABLE OBJECT 0**

**--**

**-- ERRORS 0**

**-- WARNINGS 0**