Cairo University
Faculty of Engineering
Computer Engineering Department
CMP 202

SEM - team #9

Introduction to Database Systems

Veller

Database Schema Report

Team Number: #9

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- Ayat Mostafa Abdelwahab 1 11
- Mohamed Ramzy Helmy 2 14

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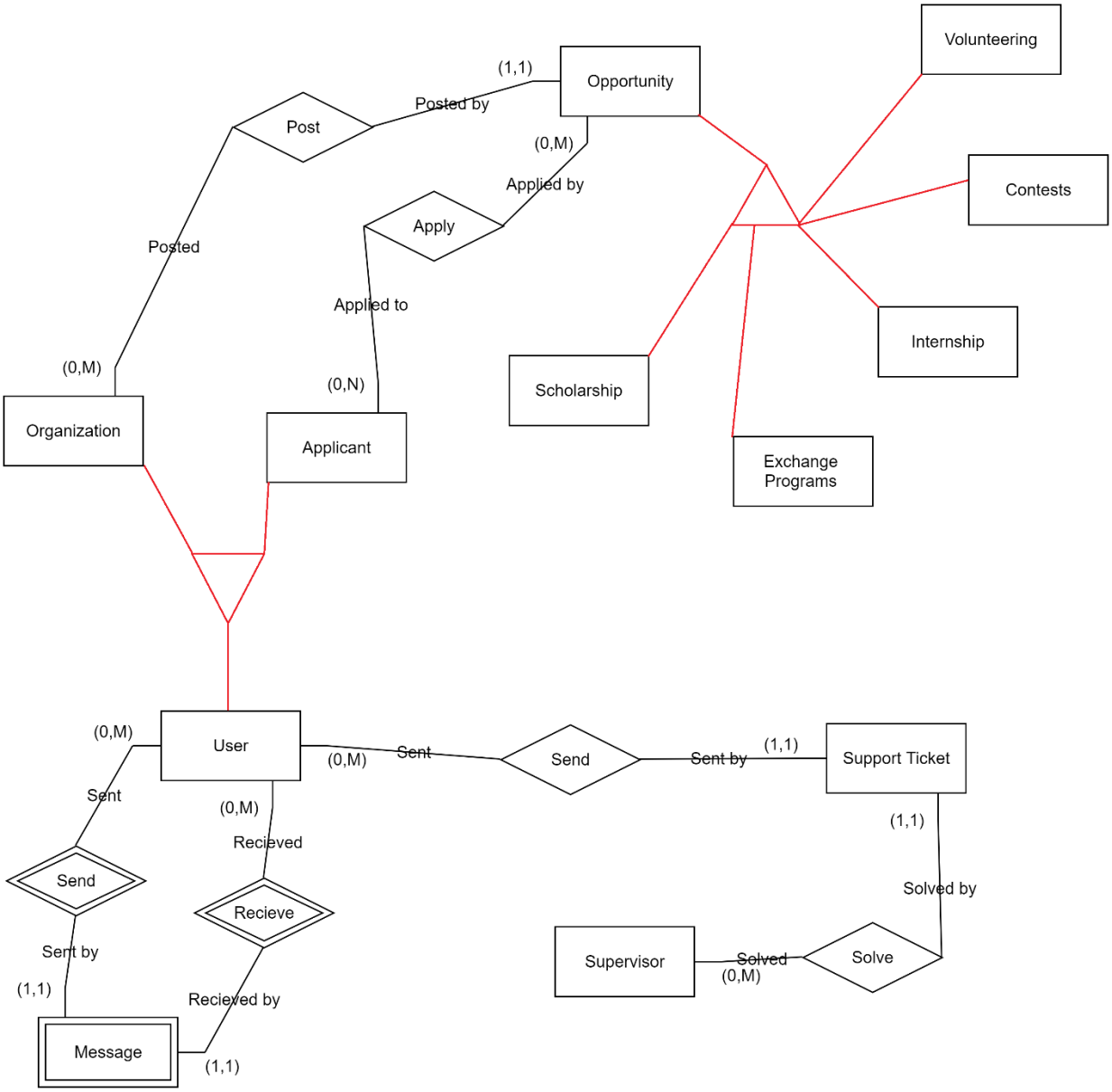
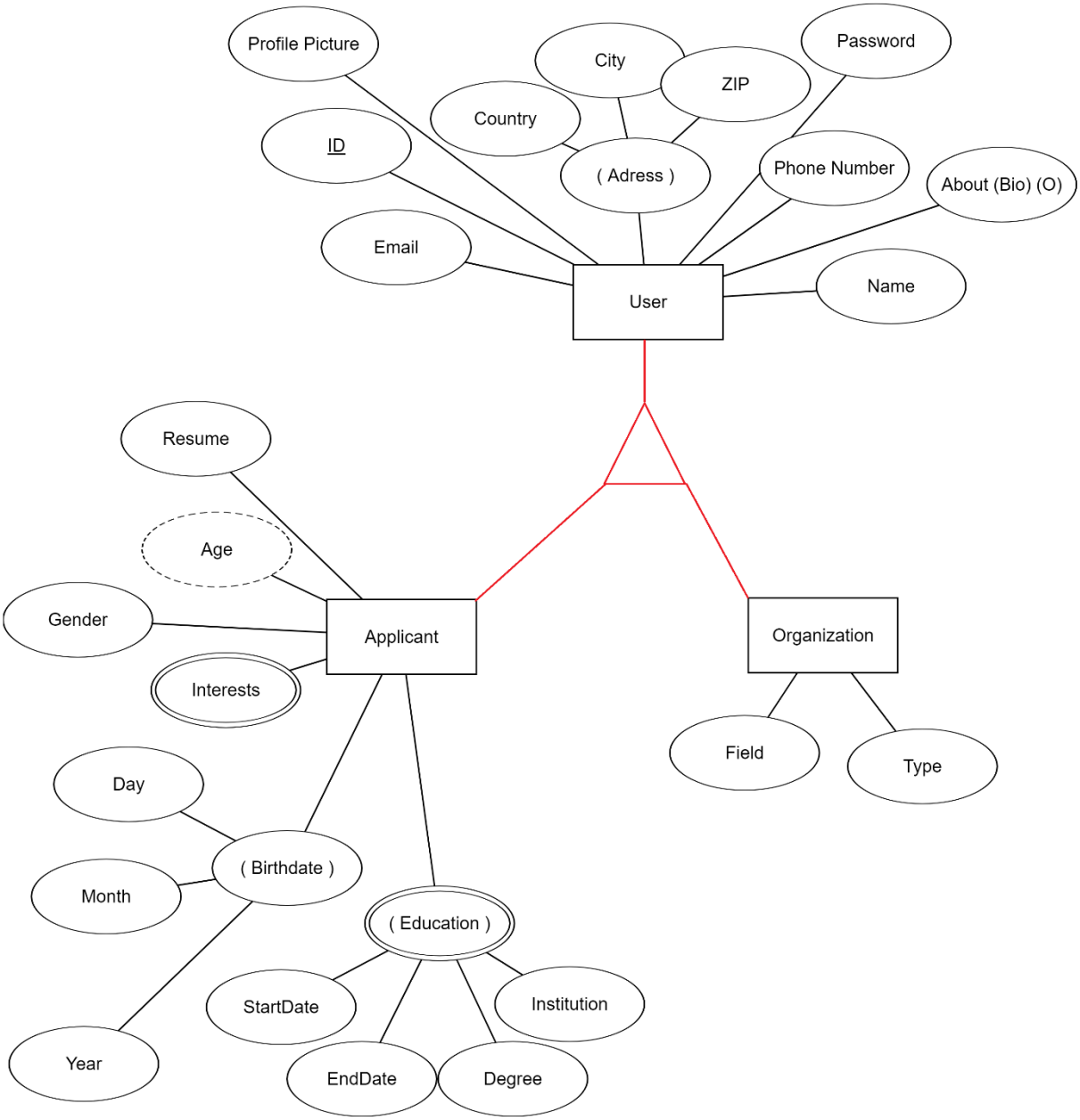
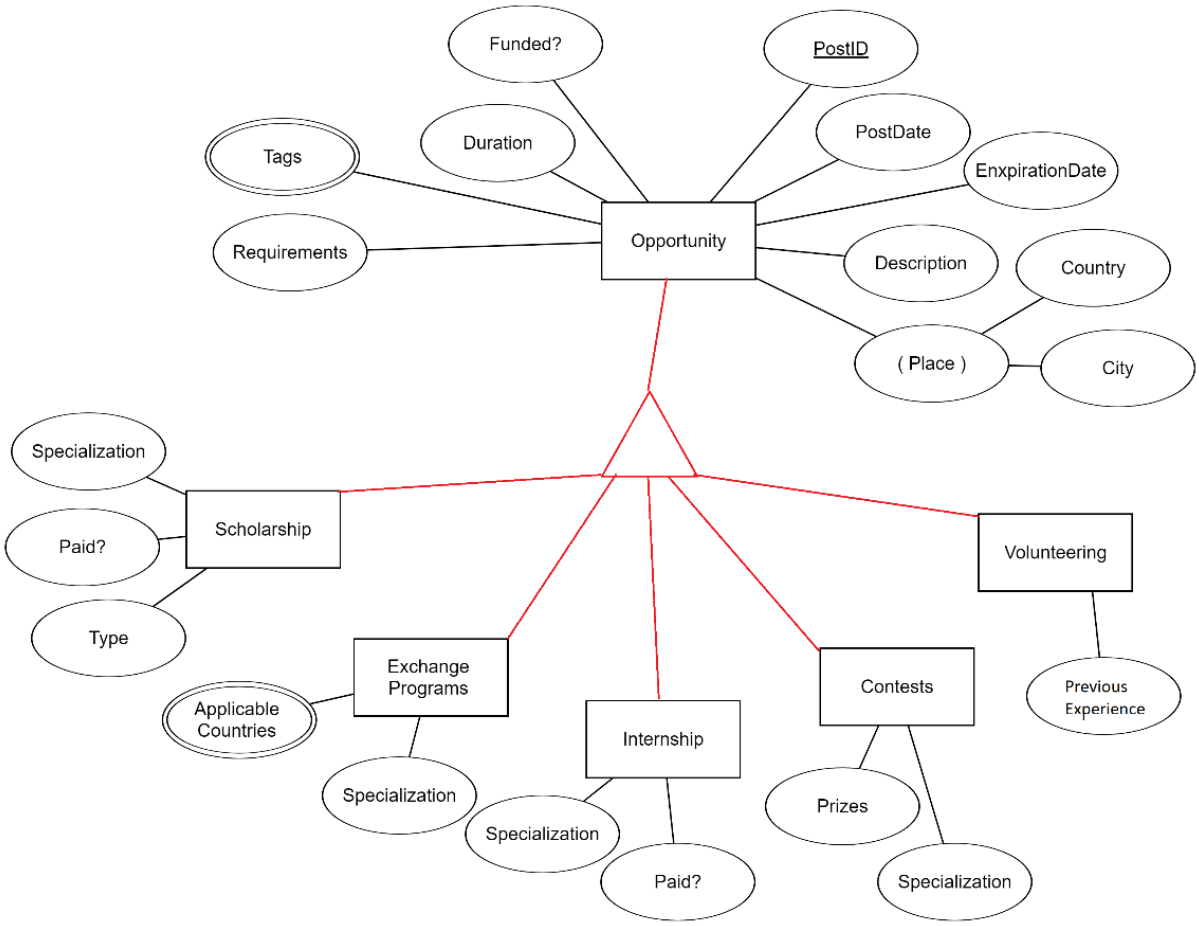
Relations ERD

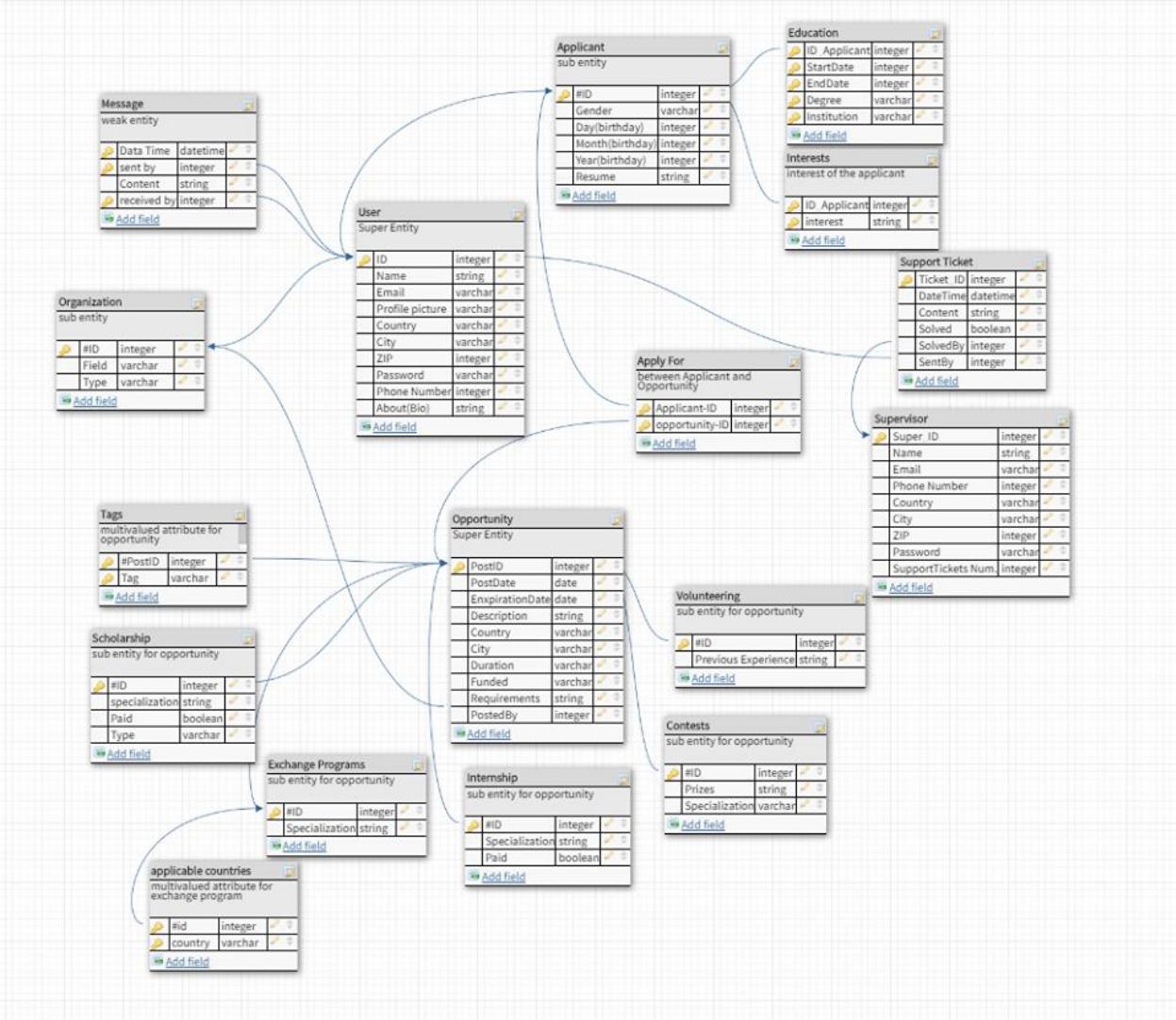


Entity-Attributes ERD




Funded?
PostID
Duration
PostDate
Tags
EnxpirationDate
Opportunity
Requirements
Description
Country
(Place)
City
Specialization
Scholarship
Paid?
Type
Volunteering
Exchange Programs
Contests
Previous Experience
Applicable Countries
Internship
Specialization
Prizes
Specialization
Paid?
Specialization

Database schema



Constrains

- **Domain Constraints:**
  1. Birthdate of applicants have year 2000- not higher.
  2. Password must be 8 digits at least.
  3. Emails are like ‘%@%’ (they must have ‘@’ in between the string)

4. Gender is either ‘Male’ or ‘Female’
5. Resume string must be a link to the resume
6. Funded attribute in Opportunity is one of three strings, ‘Fully-Funded’, ‘Partially-Funded’ or “Fully-Funded”

- **Semantic Constraints**

  EndDate of education must be more than StartDate

- **Key Constraints**

  No two tuples have same primary key. For example, in Organization relation, no two organizations can have the same ID.

- **Entity-Constraints**

  No primary key or Foreign key can be set to null. As in the example above, the ID also can’t be set to Null.

- **Attributes that allow null**

  1. SolvedBy in Support Ticket, in such case it means that it is not solved yet.
  2. Country in Applicable Countries relation. In such case, it means any country is applicable.
  3. Specialization in exchange programs, internship and contests. In such case, it means that any specialization is included.