

# CS457- Data Modeling and Implementation Techniques

Student Union of University

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# Overview

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# Introduction

- ▶ It is non-profit organization govern by student or alumni
- ▶ Offers services to help current students
- ▶ Organize activities, enhancement workshops, volunteering opportunities to make university life to enjoy

# Benefits of Student Union

- ▶ Student will learn more about their self
- ▶ Develop soft skills
- ▶ Learn how to work with a team
- ▶ Get networking opportunities
- ▶ Learn how to engage with diverse groups of people
- ▶ To have fun

# Overview of ER Diagram

- ▶ Best tool to communicate with system.
- ▶ Provides graphical representation of data and information.
- ▶ Used in business organization to make data travel easy.
- ▶ Present relation of the various database table.

# Components of ER Diagram

- ▶ Entity: An entity is an object or concept about which user want to store information.
- ▶ Attribute: A property or characteristic of an entity. Often represented as an oval or circle.
- ▶ Relationship: How entities act upon each other or are associated with each other.
- ▶ Cardinality: Specifies how many instances of an entity relate to one instance of another entity.

# Advantages of ER Diagram

- ▶ Visual Representation of layout.
- ▶ Effective communication of data.
- ▶ Easy to Understand of flow of data and information.
- ▶ High Flexibility to make out relationship between tables.

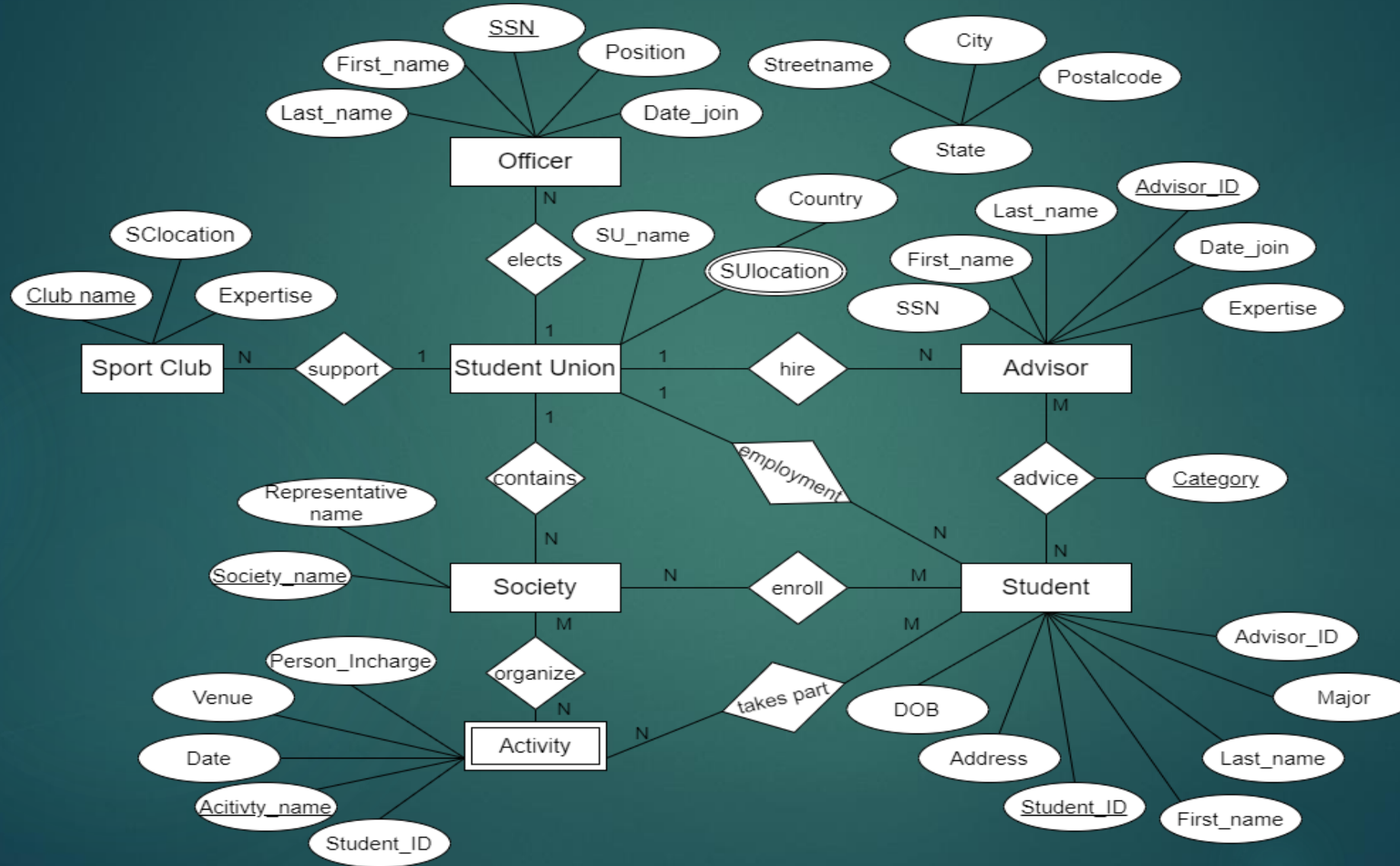
# Entities

- ▶ Student Union: SUname, SUlocation, Country, State, City, Streetname, Postal code
- ▶ Officer: SSN, Firstname, Lastname, Position, Date\_join
- ▶ Sport Club: Clubname, Sclocation, Expertise
- ▶ Advisor: Advisor\_ID, Firstname, Lastname, SSN, Date\_join, Expertise
- ▶ Student: Student\_ID, Firstname, Lastname, DOB, Address, Major, Advisor\_ID
- ▶ Society: Society\_name, Rname(Representative name)
- ▶ Activity: Activity\_name, Student\_ID, Date, Venue, Person\_Incharge

Attribute name: Key Attribute



# ER Diagram



# Explanation of ER Diagram

- ▶ Student Union *elects* Officer: (1 : N)
- ▶ Student Union *support* Sport club: (1 : N)
- ▶ Student Union *hire* Advisor: (1 : N)
- ▶ Advisor *advice* Student: (M : N)
- ▶ Student Union *contains* Society: (1 : N)
- ▶ Student *enroll* Society: (M : N)
- ▶ Society *organize* Activity: (M : N)
- ▶ Student *takespart* Activity: (M : N)
- ▶ *Student Union* employment Student: (1 : N)



Question?

Thank You

