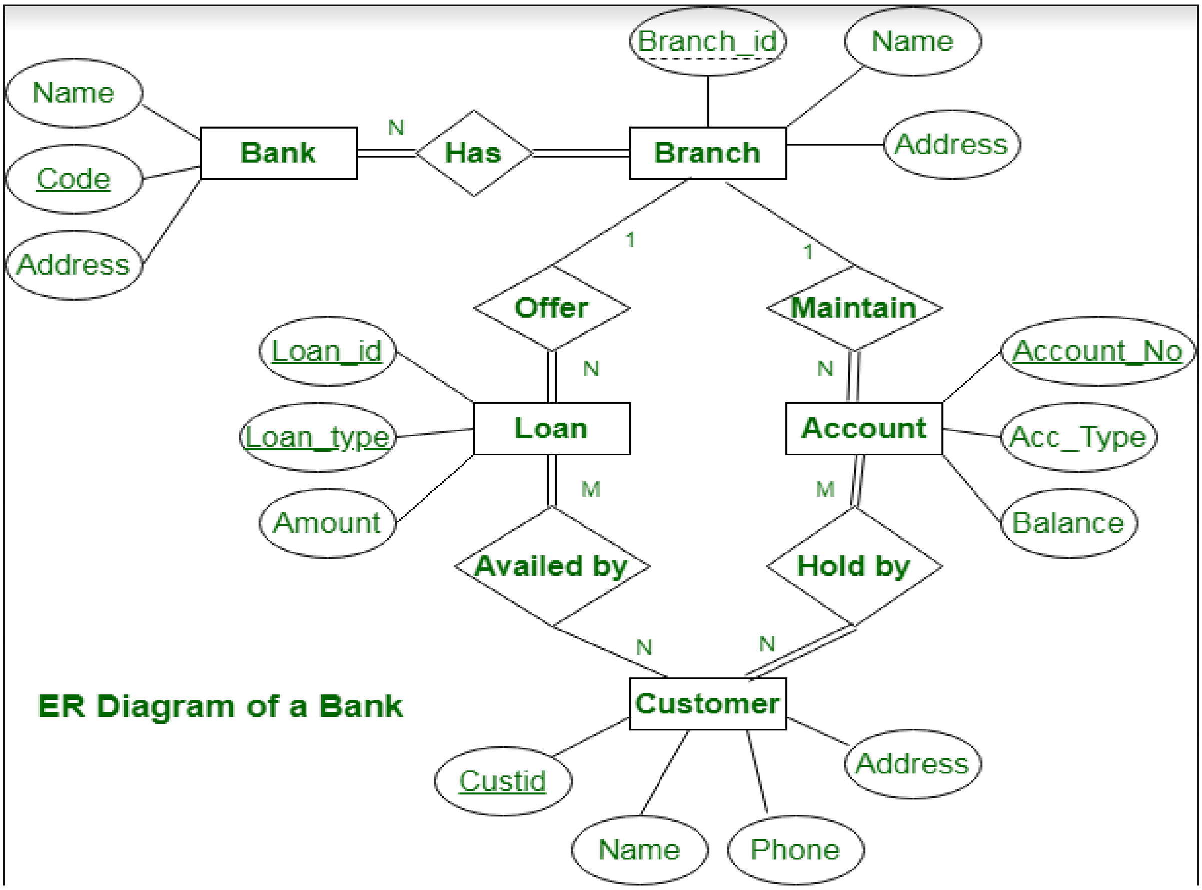
ER diagram of Bank Management System

ER diagram is known as Entity-Relationship diagram. It is used to analyze to structure of the Database. It shows relationships between entities and their attributes. An ER model provides a means of communication.

ER diagram of Bank has the following description :

- Bank have Customer.
- Banks are identified by a name, code, address of main office.
- Banks have branches.
- Branches are identified by a branch_no., branch_name, address.
- Customers are identified by name, cust-id, phone number, address.
- Customer can have one or more accounts.
- Accounts are identified by account_no., acc_type, balance.
- Customer can avail loans.
- Loans are identified by loan_id, loan_type and amount.
- Account and loans are related to bank's branch.

ER Diagram of Bank Management System :



This bank ER diagram illustrates key information about bank, including entities such as branches, customers, accounts, and loans. It allows us to understand the relationships between entities.

Entities and their **Attributes** are :

- **Bank Entity :** Attributes of Bank Entity are Bank Name, Code and Address.
  Code is Primary Key for Bank Entity.
- **Customer Entity :** Attributes of Customer Entity are Customer_id, Name, Phone Number and Address.
  Customer_id is Primary Key for Customer Entity.
- **Branch Entity :** Attributes of Branch Entity are Branch_id, Name and Address.
  Branch_id is Primary Key for Branch Entity.
- **Account Entity :** Attributes of Account Entity are Account_number, Account_Type and Balance.
  Account_number is Primary Key for Account Entity.
- **Loan Entity :** Attributes of Loan Entity are Loan_id, Loan_Type and Amount.
  Loan_id is Primary Key for Loan Entity.

Relationships are :

- **Bank has Branches => 1 : N**
  One Bank can have many Branches but one Branch can not belong to many Banks, so the relationship between Bank and Branch is one to many relationship.

- **Branch maintain Accounts => 1 : N**
  One Branch can have many Accounts but one Account can not belong to many Branches, so the relationship between Branch and Account is one to many relationship.

- **Branch offer Loans => 1 : N**
  One Branch can have many Loans but one Loan can not belong to many Branches, so the relationship between Branch and Loan is one to many relationship.

- **Account held by Customers => M : N**
  One Customer can have more than one Accounts and also One Account can be held by one or more Customers, so the relationship between Account and Customers is many to many relationship.

- **Loan availed by Customer => M : N**
  (Assume loan can be jointly held by many Customers).
  One Customer can have more than one Loans and also One Loan can be availed by one or more Customers, so the relationship between Loan and Customers is many to many relationship.

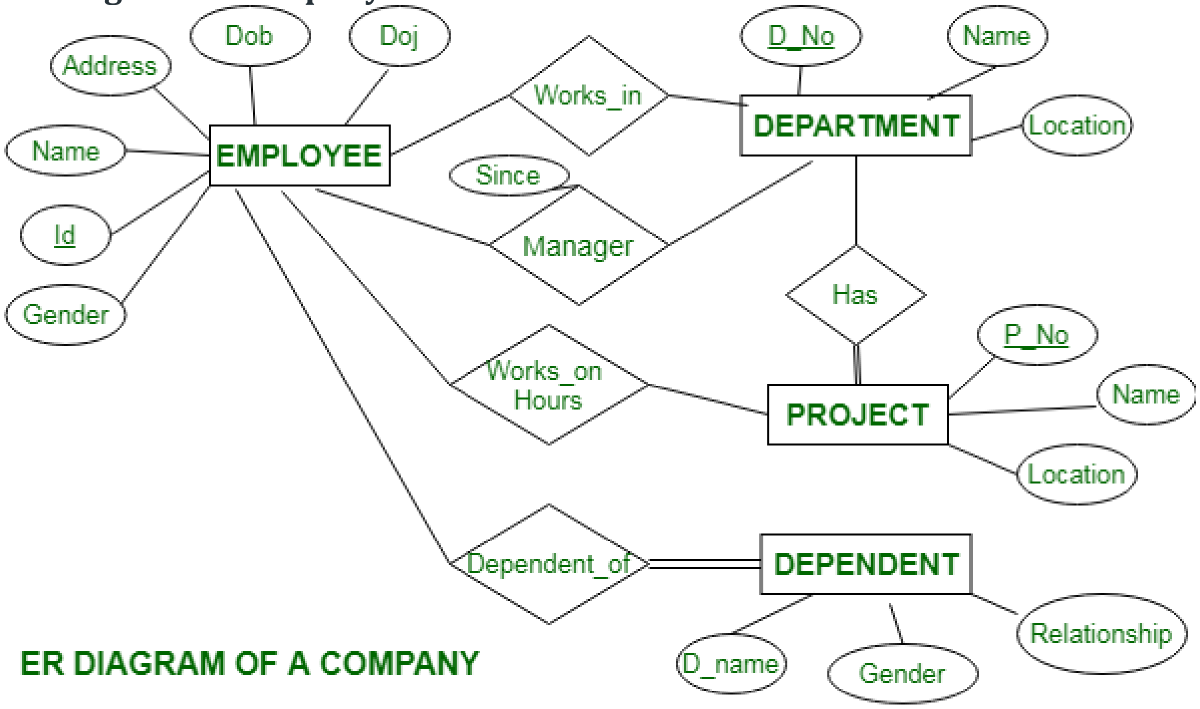
ER Diagram of a Company

ER Diagram is known as Entity-Relationship Diagram, it is used to analyze to structure of the Database. It shows relationships between entities and their attributes. An ER Model provides a means of communication. ER diagram of Company has the following description :

- Company has several departments.
- Each department may have several Location.

- Departments are identified by a name, D_no, Location.
- A Manager control a particular department.
- Each department is associated with number of projects.
- Employees are identified by name, id, address, dob, dat e_of_joining.
- An employee works in only one department but can work on several project.
- We also keep track of number of hours worked by an employee on a single project.
- Each employee has dependent
- Dependent has D_name, Gender and relationship.

ER Diagram of Company :



This Company ER diagram illustrates key information about Company, including entities such as employee, department, project and dependent. It allows to understand the relationships between entities. **Entities** and their **Attributes** are

- **Employee Entity :** Attributes of Employee Entity are Name, Id, Address, Gender, Dob and Doj. Id is Primary Key for Employee Entity.
- **Department Entity :** Attributes of Department Entity are D_no, Name and Location. D_no is Primary Key for Department Entity.
- **Project Entity :** Attributes of Project Entity are P_No, Name and Location. P_No is Primary Key for Project Entity.
- **Dependent Entity :** Attributes of Dependent Entity are D_no, Gender and relationship.

Relationships are :

- **Employees works in Departments –** Many employee works in one Department but one employee can not work in many departments.
- **Manager controls a Department –** employee works under the manager of the Department and the manager records the date of joining of employee in the department.
- **Department has many Projects –** One department has many projects but one project can not come under many departments.
- **Employee works on project –** One employee works on several projects and the number of hours worked by the employee on a single project is recorded.
- **Employee has dependents –** Each Employee has dependents. Each dependent is dependent of only one employee.

ER diagram of Library Management System

ER Diagram is known as Entity-Relationship Diagram, it is used to analyze the structure of the Database. It shows relationships between entities and their attributes. An ER Model provides a means of communication.

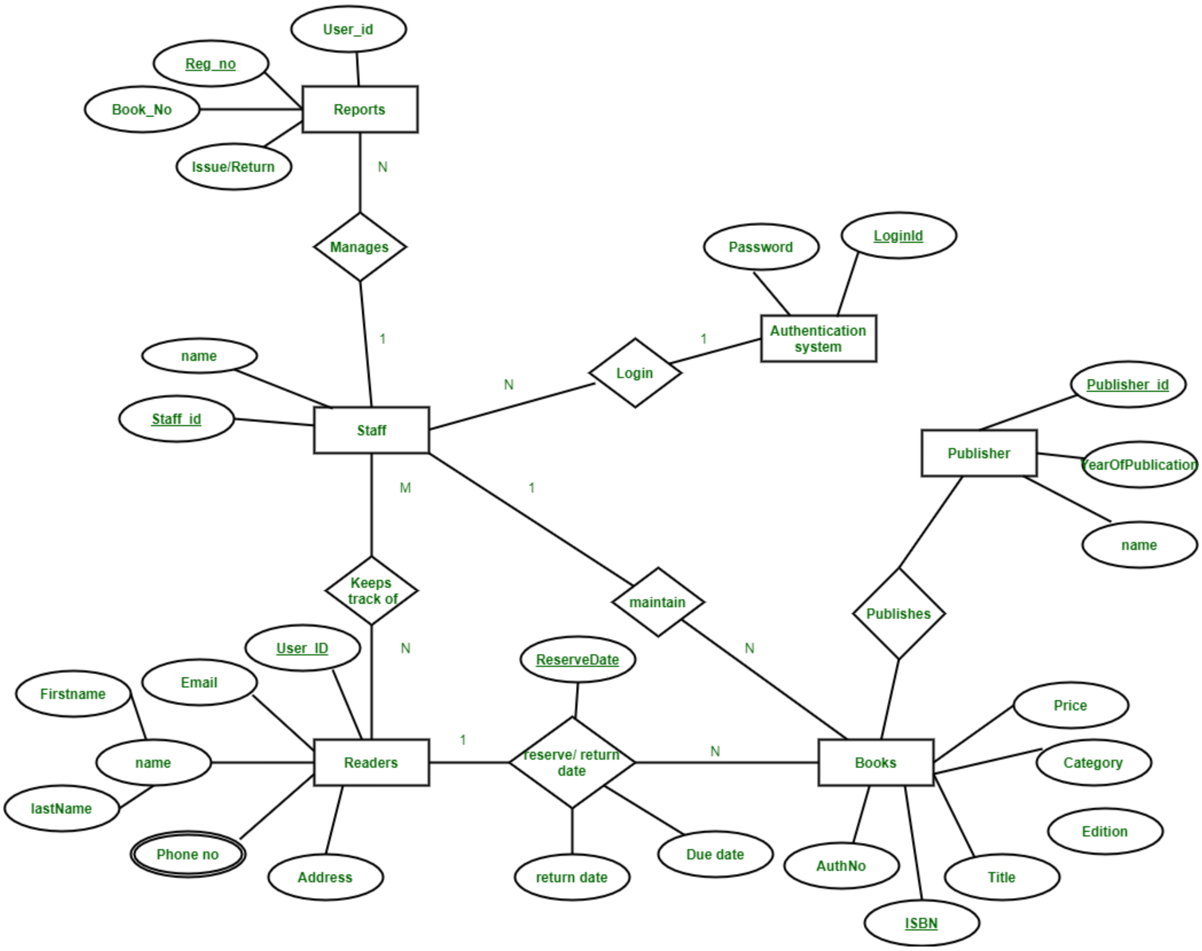
The Library Management System database keeps track of readers with the following considerations –

- The system keeps track of the staff with a single point authentication system comprising login Id and password.
- Staff maintains the book catalog with its ISBN, Book title, price(in INR), category(novel, general, story), edition, author Number and details.
- A publisher has publisher Id, Year when the book was published, and name of the book.
- Readers are registered with their user_id, email, name (first name, last name), Phone no (multiple entries allowed), communication address. The staff keeps track of readers.
- Readers can return/reserve books that stamps with issue date and return date. If not returned within the prescribed time period, it may have a due date too.
- Staff also generate reports that has readers id, registration no of report, book no and return/issue info.

Note:

Follow given link to build a Web application on Library Management System.

Below is the ER Diagram for Library Management System:



ER Diagram of Library Management System

This Library ER diagram illustrates key information about the Library, including entities such as staff, readers, books, publishers, reports, and authentication system. It allows for understanding the relationships between entities.

Entities and their Attributes –

- **Book Entity :** It has authno, isbn number, title, edition, category, price. ISBN is the Primary Key for Book Entity.
- **Reader Entity :** It has UserId, Email, address, phone no, name. Name is composite attribute of firstname and lastname. Phone no is multi valued attribute. UserId is the Primary Key for Readers entity.
- **Publisher Entity :** It has PublisherId, Year of publication, name. PublisherID is the Primary Key.
- **Authentication System Entity :** It has LoginId and password with LoginID as Primary Key.
- **Reports Entity :** It has UserId, Reg_no, Book_no, Issue/Return date. Reg_no is the Primary Key of reports entity.
- **Staff Entity :** It has name and staff_id with staff_id as Primary Key.
- **Reserve/Return Relationship Set :** It has three attributes: Reserve date, Due date, Return date.

Relationships between Entities –

- A reader can reserve N books but one book can be reserved by only one reader. The relationship 1:N.
- A publisher can publish many books but a book is published by only one publisher. The relationship 1:N.
- Staff keeps track of readers. The relationship is M:N.
- Staff maintains multiple reports. The relationship 1:N.
- Staff maintains multiple Books. The relationship 1:N.
- Authentication system provides login to multiple staffs. The relation is 1:N.

DFD for Library Management System

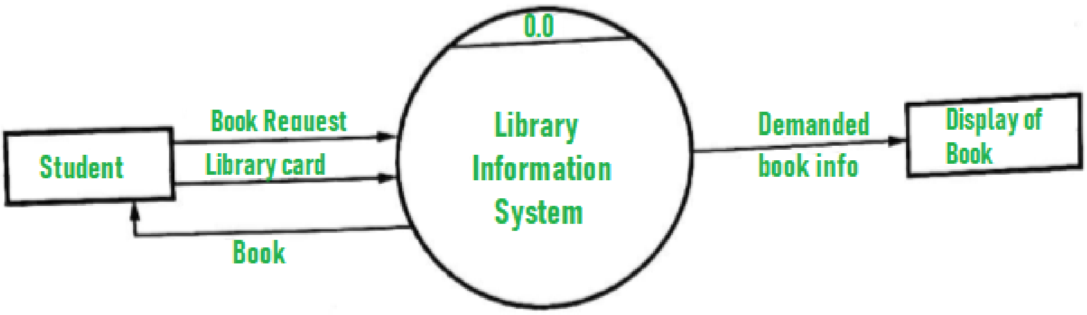
Data Flow Diagram (DFD) depicts the flow of information and the transformation applied when data moves in and out of a system. The overall system is represented and described using input, processing, and output in the DFD. The inputs can be:

- **Book request** when a student requests for a book.
- **Library card** when the student has to show or submit his/her identity as proof.

The overall processing unit will contain the following output that a system will produce or generate:

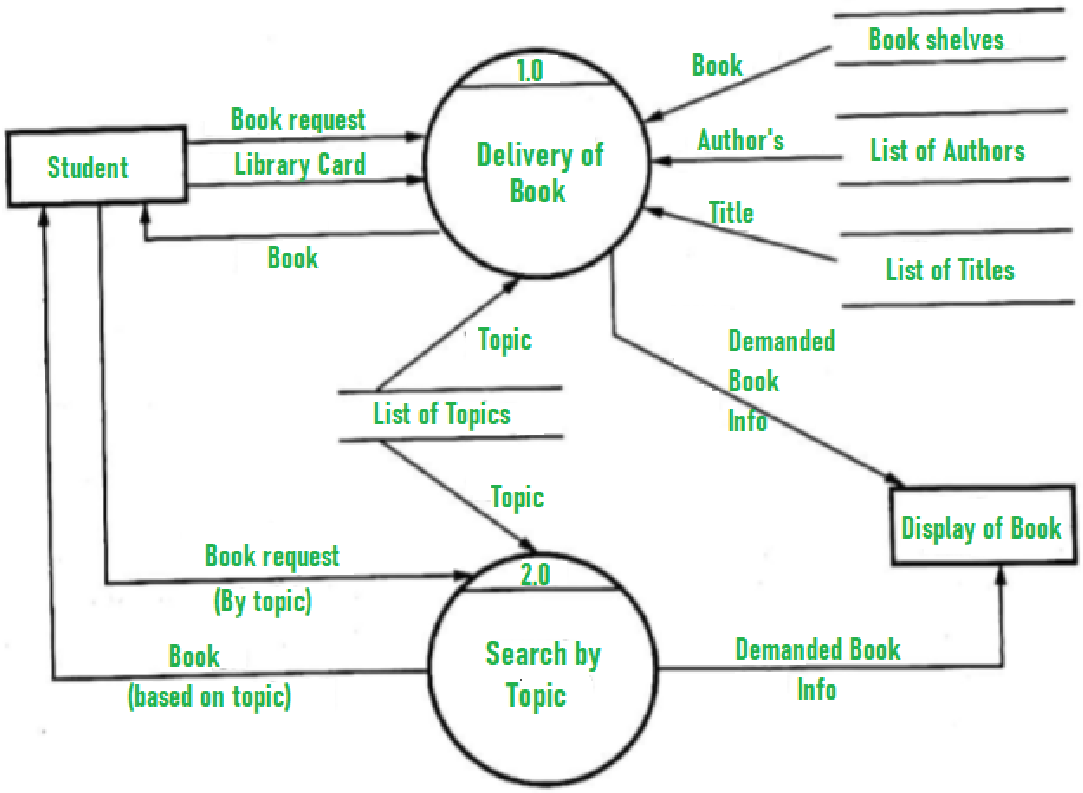
- The book will be the output as the book demanded by the students will be given to them.
- Information on the demanded book should be displayed by the library information system that can be used by the student while selecting the book which makes it easier for the student.

1. Level 0 DFD –



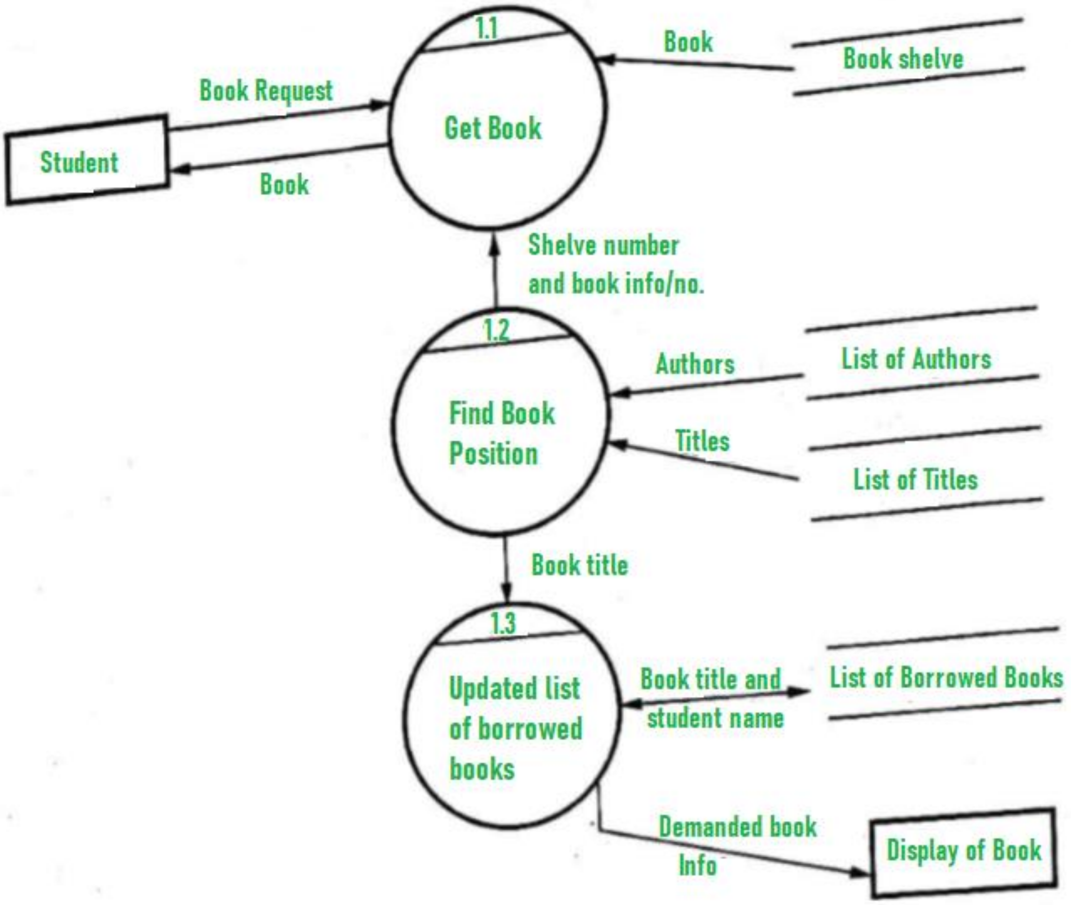
2. Level 1 DFD – At this level, the system has to show or exposed with more details of processing. The processes that are important to be carried out are:
   - Book delivery
   - Search by topic

   List of authors, List of Titles, List of Topics, the bookshelves from which books can be located are some information that is required for these processes. **Data store** is used to represent this type of information.



Level 1 DFD

3. **Level 2 DFD** –



Level 2 DFD

Introduction of ER Model

The Entity Relational Model is a model for identifying entities to be represented in the database and representation of how those entities are related. The ER data model specifies enterprise schema that represents the overall logical structure of a database graphically.

The Entity Relationship Diagram explains the relationship among the entities present in the database. ER models are used to model real-world objects like a person, a car, or a company and the relation between these real-world objects. In short, the ER Diagram is the structural format of the database.

Why Use ER Diagrams In DBMS?

- ER diagrams are used to represent the E-R model in a database, which makes them easy to convert into relations (tables).
- ER diagrams provide the purpose of real-world modeling of objects which makes them intently useful.
- ER diagrams require no technical knowledge and no hardware support.
- These diagrams are very easy to understand and easy to create even for a naive user.
- It gives a standard solution for visualizing the data logically.

Symbols Used in ER Model

ER Model is used to model the logical view of the system from a data perspective which consists of these symbols:

- **Rectangles:** Rectangles represent Entities in the ER Model.
- **Ellipses:** Ellipses represent Attributes in the ER Model.
- **Diamond:** Diamonds represent Relationships among Entities.
- **Lines:** Lines represent attributes to entities and entity sets with other relationship types.
- **Double Ellipse:** Double Ellipses represent Multi-Valued Attributes.
- **Double Rectangle:** Double Rectangle represents a Weak Entity.

Symbols used in ER Diagram

Components of ER Diagram

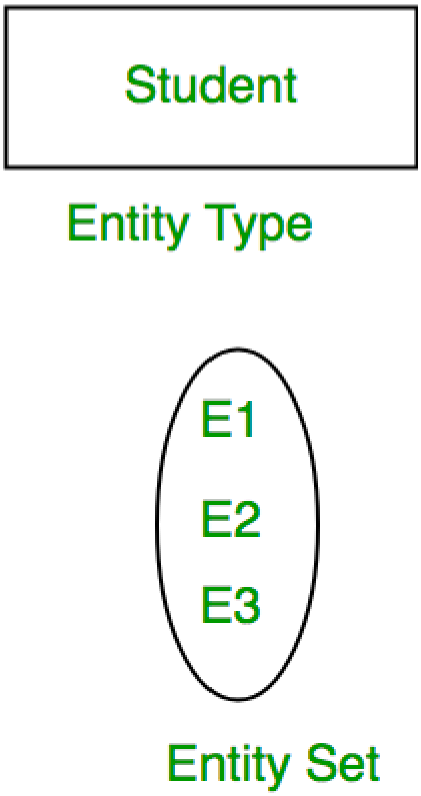
ER Model consists of Entities, Attributes, and Relationships among Entities in a Database System.

Components of ER Diagram

Entity

An Entity may be an object with a physical existence – a particular person, car, house, or employee – or it may be an object with a conceptual existence – a company, a job, or a university course.

Entity Set: An Entity is an object of Entity Type and a set of all entities is called an entity set. For Example, E1 is an entity having Entity Type Student and the set of all students is called Entity Set. In ER diagram, Entity Type is represented as:



Entity Set

1. Strong Entity

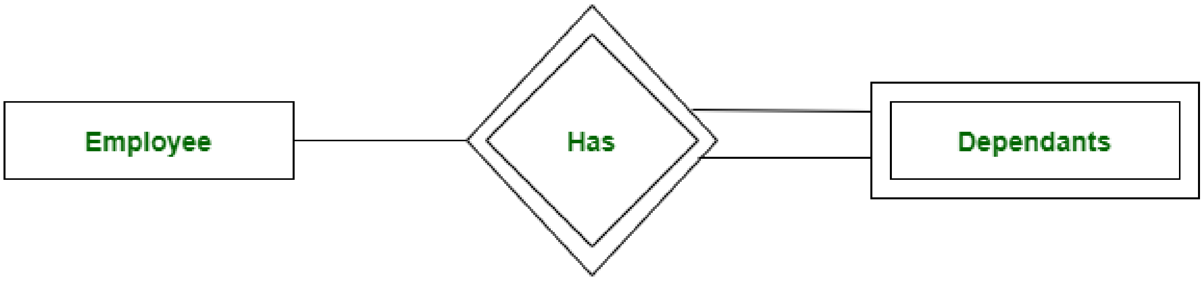
A Strong Entity is a type of entity that has a key Attribute. Strong Entity does not depend on other Entity in the Schema. It has a primary key, that helps in identifying it uniquely, and it is represented by a rectangle. These are called Strong Entity Types.

2. Weak Entity

An Entity type has a key attribute that uniquely identifies each entity in the entity set. But some entity type exists for which key attributes can't be defined. These are called Weak Entity types.

For Example, A company may store the information of dependents (Parents, Children, Spouse) of an Employee. But the dependents don't have existed without the employee. So Dependent will be a **Weak Entity Type** and Employee will be Identifying Entity type for Dependent, which means it is **Strong Entity Type**.

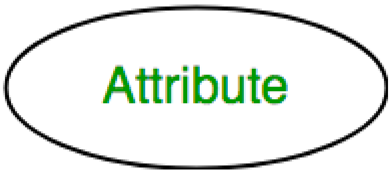
A weak entity type is represented by a Double Rectangle. The participation of weak entity types is always total. The relationship between the weak entity type and its identifying strong entity type is called identifying relationship and it is represented by a double diamond.



Strong Entity and Weak Entity

Attributes

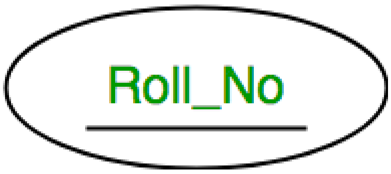
Attributes are the properties that define the entity type. For example, Roll_No, Name, DOB, Age, Address, and Mobile_No are the attributes that define entity type Student. In ER diagram, the attribute is represented by an oval.



Attribute

1. Key Attribute

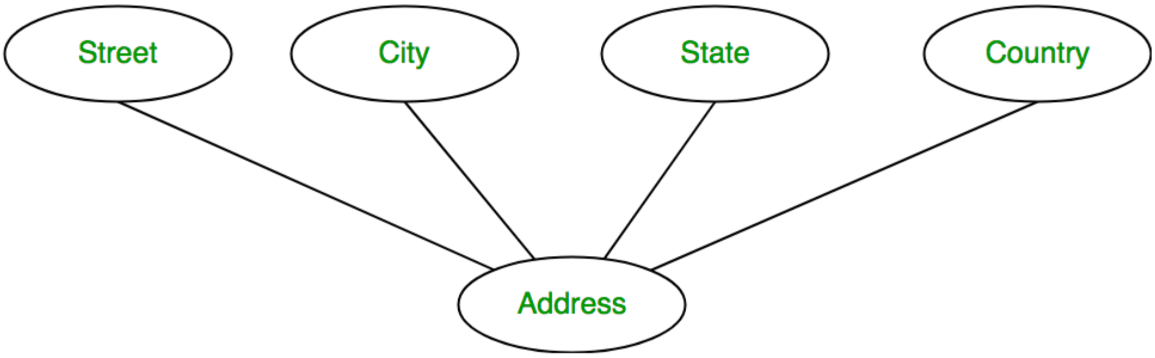
The attribute which **uniquely identifies each entity** in the entity set is called the key attribute. For example, Roll_No will be unique for each student. In ER diagram, the key attribute is represented by an oval with underlying lines.



Key Attribute

2. Composite Attribute

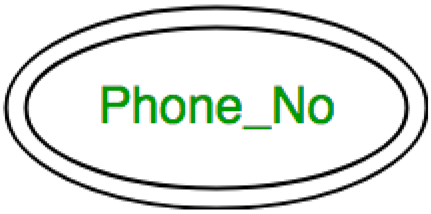
An attribute **composed of many other attributes** is called a composite attribute. For example, the Address attribute of the student Entity type consists of Street, City, State, and Country. In ER diagram, the composite attribute is represented by an oval comprising of ovals.



Composite Attribute

3. Multivalued Attribute

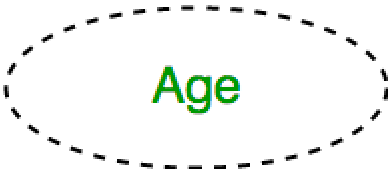
An attribute consisting of more than one value for a given entity. For example, Phone_No (can be more than one for a given student). In ER diagram, a multivalued attribute is represented by a double oval.



Multivalued Attribute

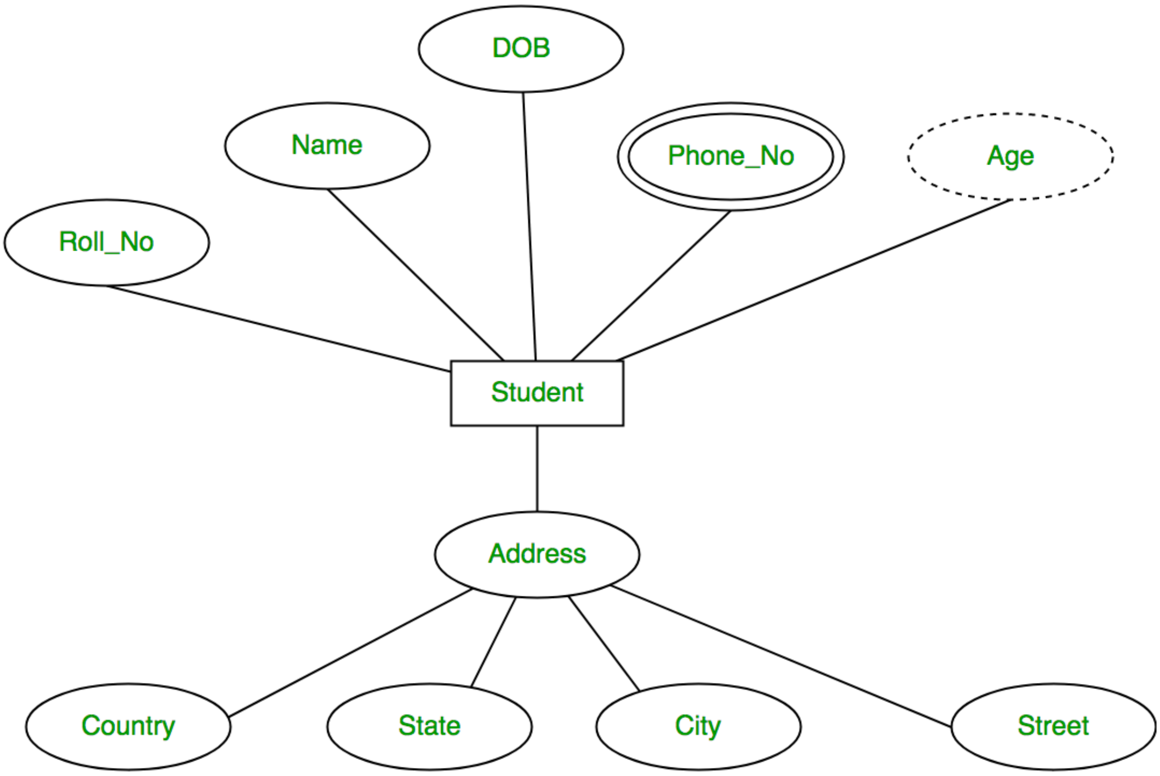
4. Derived Attribute

An attribute that can be derived from other attributes of the entity type is known as a derived attribute. e.g.; Age (can be derived from DOB). In ER diagram, the derived attribute is represented by a dashed oval.



Derived Attribute

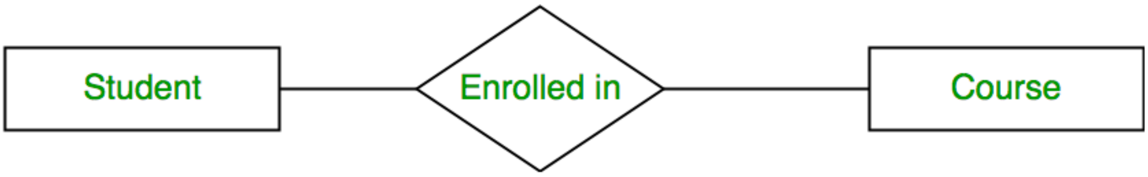
The Complete Entity Type Student with its Attributes can be represented as:



Entity and Attributes

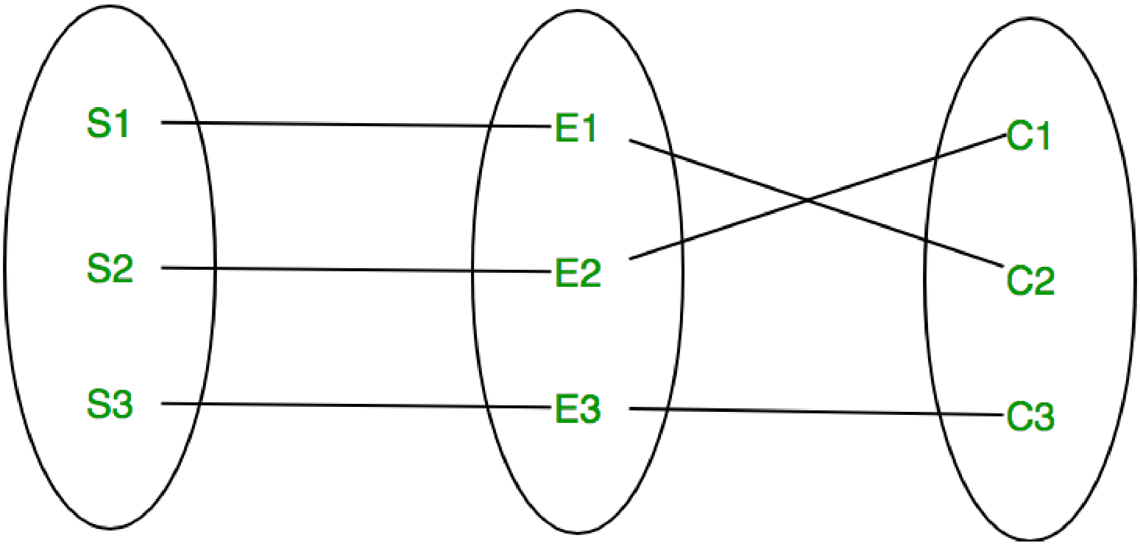
Relationship Type and Relationship Set

A Relationship Type represents the association between entity types. For example, ‘Enrolled in’ is a relationship type that exists between entity type Student and Course. In ER diagram, the relationship type is represented by a diamond and connecting the entities with lines.



Entity-Relationship Set

A set of relationships of the same type is known as a relationship set. The following relationship set depicts S1 as enrolled in C2, S2 as enrolled in C1, and S3 as registered in C3.

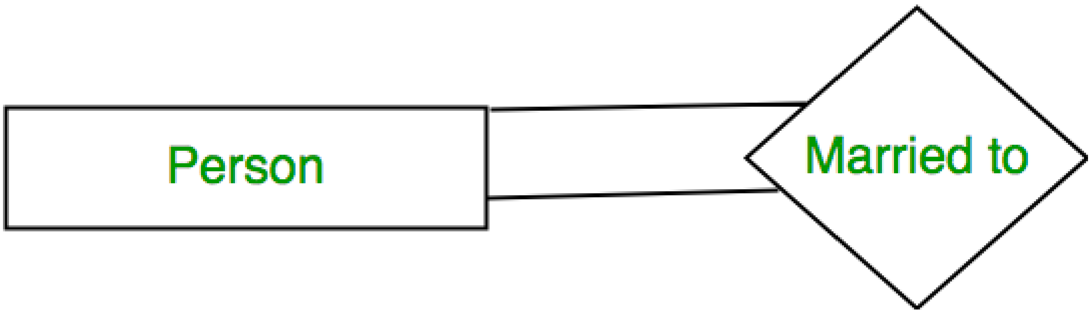


Relationship Set

Degree of a Relationship Set

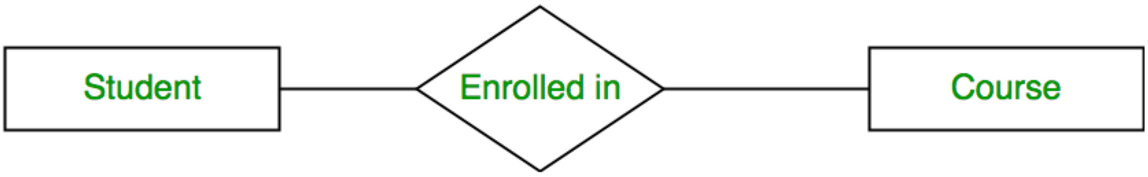
The number of different entity sets participating in a relationship set is called the degree of a relationship set.

1. Unary Relationship: When there is only ONE entity set participating in a relation, the relationship is called a unary relationship. For example, one person is married to only one person.



Unary Relationship

2. Binary Relationship: When there are TWO entities set participating in a relationship, the relationship is called a binary relationship. For example, a Student is enrolled in a Course.



Binary Relationship

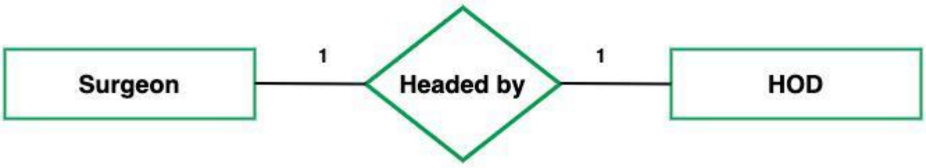
3. n-ary Relationship: When there are n entities set participating in a relation, the relationship is called an n-ary relationship.

Cardinality

The number of times an entity of an entity set participates in a relationship set is known as cardinality. Cardinality can be of different types:

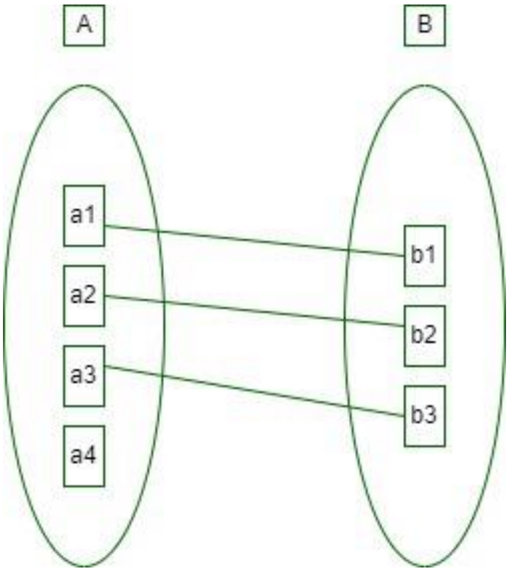
1. One-to-One: When each entity in each entity set can take part only once in the relationship, the cardinality is one-to-one. Let us assume that a male can marry one female and a female can marry one male. So the relationship will be one-to-one.

the total number of tables that can be used in this is 2.



one to one cardinality

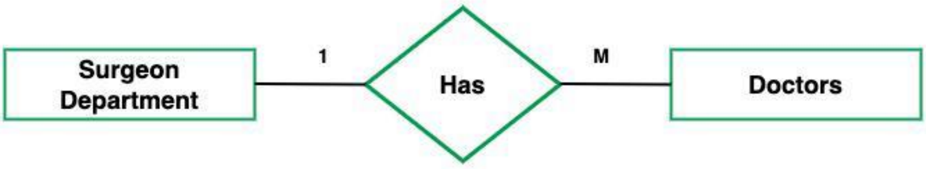
Using Sets, it can be represented as:



Set Representation of One-to-One

2. One-to-Many: In one-to-many mapping as well where each entity can be related to more than one relationship and the total number of tables that can be used in this is 2. Let us assume that one

surgeon department can accommodate many doctors. So the Cardinality will be 1 to M. It means one department has many Doctors.
total number of tables that can used is 3.

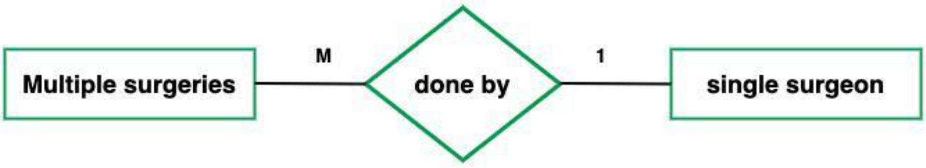


one to many cardinality

Using sets, one-to-many cardinality can be represented as:

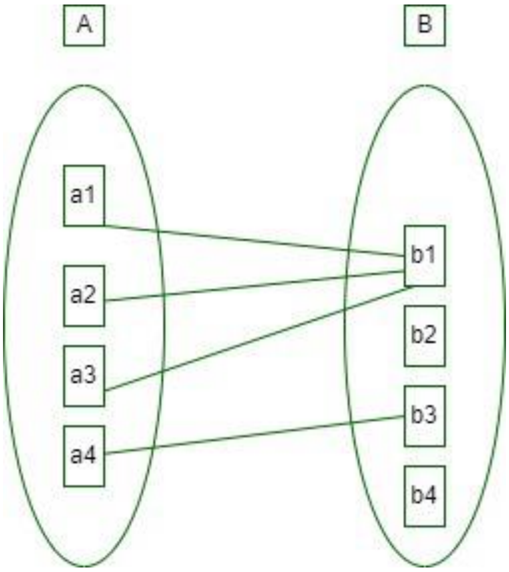
Set Representation of One-to-Many

3. Many-to-One: When entities in one entity set can take part only once in the relationship set and entities in other entity sets can take part more than once in the relationship set, cardinality is many to one. Let us assume that a student can take only one course but one course can be taken by many students. So the cardinality will be n to 1. It means that for one course there can be n students but for one student, there will be only one course.
The total number of tables that can be used in this is 3.



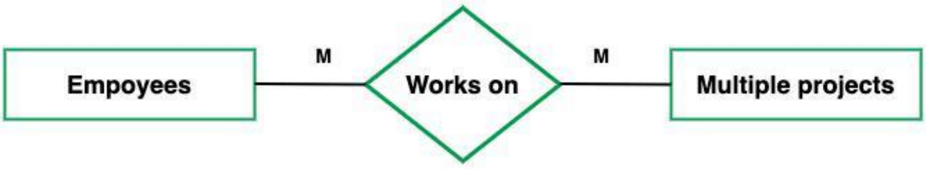
many to one cardinality

Using Sets, it can be represented as:



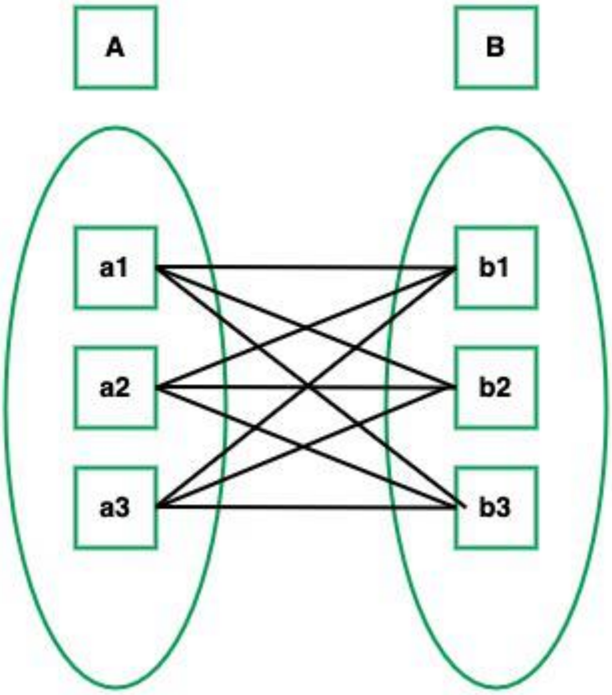
Set Representation of Many-to-One

In this case, each student is taking only 1 course but 1 course has been taken by many students.
4. Many-to-Many: When entities in all entity sets can take part more than once in the relationship cardinality is many to many. Let us assume that a student can take more than one course and one course can be taken by many students. So the relationship will be many to many.
the total number of tables that can be used in this is 3.



many to many cardinality

Using Sets, it can be represented as:



Many-to-Many Set Representation

In this example, student S1 is enrolled in C1 and C3 and Course C3 is enrolled by S1, S3, and S4. So it is many-to-many relationships.

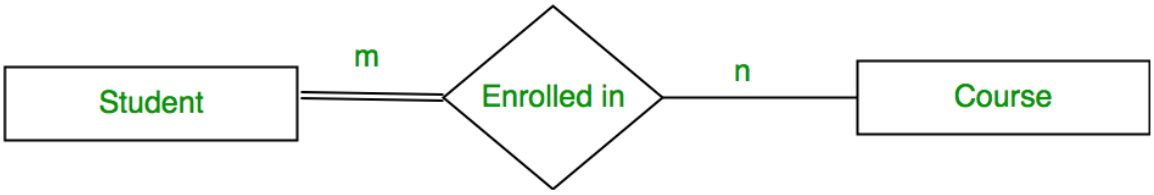
Participation Constraint

Participation Constraint is applied to the entity participating in the relationship set.

1. Total Participation – Each entity in the entity set must participate in the relationship. If each student must enroll in a course, the participation of students will be total. Total participation is shown by a double line in the ER diagram.

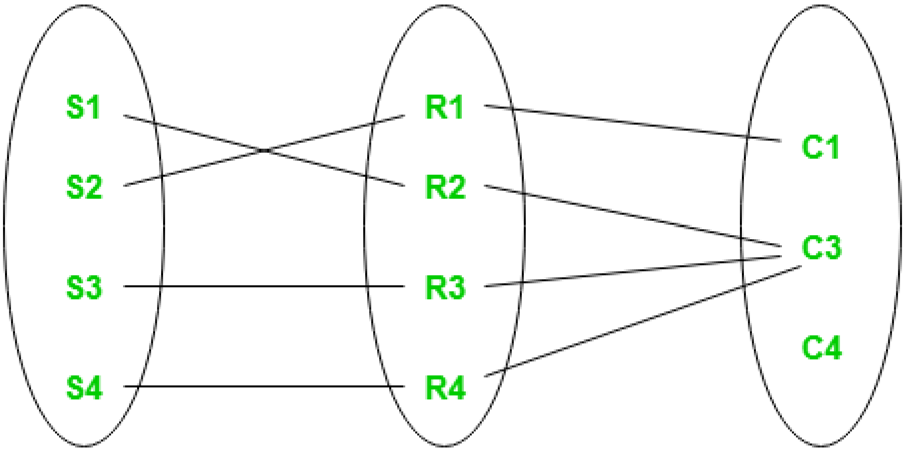
2. Partial Participation – The entity in the entity set may or may NOT participate in the relationship. If some courses are not enrolled by any of the students, the participation in the course will be partial.

The diagram depicts the 'Enrolled in' relationship set with Student Entity set having total participation and Course Entity set having partial participation.



Total Participation and Partial Participation

Using Set, it can be represented as,



Set representation of Total Participation and Partial Participation

Every student in the Student Entity set participates in a relationship but there exists a course C4 that is not taking part in the relationship.

How to Draw ER Diagram?

- The very first step is Identifying all the Entities, and place them in a Rectangle, and labeling them accordingly.
- The next step is to identify the relationship between them and pace them accordingly using the Diamond, and make sure that, Relationships are not connected to each other.
- Attach attributes to the entities properly.
- Remove redundant entities and relationships.
- Add proper colors to highlight the data present in the database.

ER Diagram for the University Management System

In DBMS, ER diagram for a university management system shows how the databases are connected to each other. It also shows how all the databases are logically related to each other. We can also create an ER diagram by drawing the figure of a different part of the university management system and their properties and how they perform their task.

We can draw an ER diagram of the university management system by drawing the design of the database. The sketch of the database became the storage of the database where the data comes and goes.

Details University Management System ER Diagram

Now we describe the overall function of the University Management System in the below table. It is a complete overview of the information about the university management project.

Name:	ER Diagram of the University Management System.
Abstract:	The ER Diagram of the University management system shows the relationship between

	various entities. We can also call it the blueprint of the University management system.
Diagram:	We can also call the ER diagram an Entity Relationship diagram.
Tool used:	The ER diagram provides some symbol that is known as the diagramming tool.
Users:	The users of the ER diagram are university admin , applications, software, and websites.

What is University Management System?

A University management system is a web-based solution that covers all the functions of a university and college. It is developed for analyzing, conducting, and monitoring the complex activity of the university and affiliated colleges like admission, examination, and many more.

Importance of University Management System

When we compare the manual process with the university management system, the university management system makes easier the overall process of the university management system. The university management system creates a platform that collaborates with all students, administrators, faculty, and stakeholders. Some key benefits of the university management system are as follows.

1. It is very easy for the student to access information and educational service.
2. It provides transparency in all the processes.
3. It provides better communication between all the stakeholders of the university.
4. All the tasks are executed in a very simplifying matter.
5. The pre and post-examination works have the management of the time-critical activity.

What is an ER Diagram?

We can also call ER diagram the database design for the university management system project. The ER diagram is like a picture that contains how all the entities are related to each other. The most important part of the ER diagram is Relationships, Attributes, and Entities.

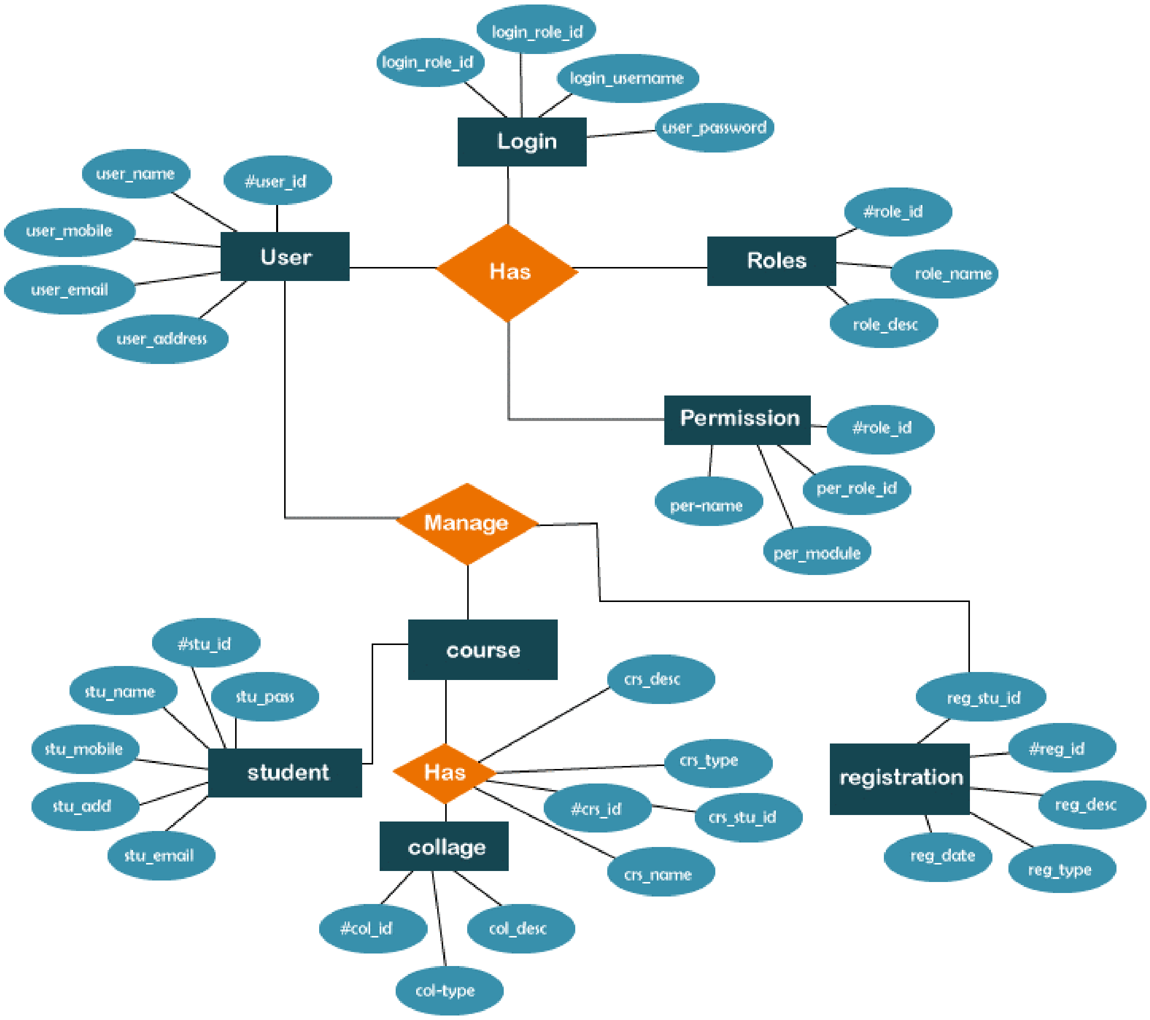
Importance of ER Diagram

The ER diagram for the project is the foundation for the building of the database of the project. The properties, datatypes, and attributes are defined by the ER diagram.

ER Diagram for University Management System

The ER diagram for the university management system, the system data, and their attributes. The data and the attributes are represented by the table, and the table shows how they are related to each other.

Database Design for the University Management System



The above diagram shows the database design for the university management system. This database design shows all the system data, and the output for the user is stored in the database. In DBMS, a good ER diagram is needed for the creation of a university management system.

University Management System ER Diagram Tables

The below table shows all about the field name of the table, description, datatype, and character length. Each table of the ER diagram defines and explains the data storage.

The field column lists all the attributes of the database that describes each column. The types table of the database shows what kind of data each attribute is, and the length shows how many characters it has.

Table Name: Student

Field	Description	
stud_ID (PK)	Student ID	I
Stu_name	Student Name	V
Stu_mob	Student Mobile Number	I
stu_add	Contact Address	I
stu_email	Student Email	V
stu_pass	Student Password	V

Table Name: Course

Field	Description	
crs_ID (PK)	Course ID	
crs_name	Course Name	
crs_desc	Course Description	
Crs_type	Course type	
Crs_std_ID	Student ID	

Table name: college:-

Field	Description	
Col_ID	College ID	
Col_desc	College description	
Col_type	Type of the college	

Table name: registration:-

Field	Description	
Reg_stu_ID	Student registration ID	
Reg_ID	Registration ID	
Reg_desc	Description about registration	
Reg_type	Type of registration	
Reg_date	Date of registration	

Table name: permission

Field	Description	
Per_id	Permission id	
Per_role_id	Permission role id	
Per_module	Permission module	
Per_name	Permission name	

Table name: Roles

Field	Description	
Role-id	Role id	
Role_name	Role name	
Role_desc	Role decription	

Table name: Log-In

Field	Description	
Login-ID	Login ID	
Login-role-ID	Login-role ID	
Login_username	User name	
Login_password	Password	

Table name: users

Field	Description	
User_id	User id	
User_name	Name of the user	
User_mobile	Mobile number	
User_email	Email id	
User_address	address	

With the help of the above tables, we can set up the database for the university management system. It provides the full description of the database with its table names. They will enter all the values and attributes for the database in the table.

How to create ER Diagram

We can create the ER diagram for the table just in 5 minutes. There are some steps, and with the help of these steps, we can build the ER diagram for the university management system project. The steps are as below.

Step 1: We must familiarize ourselves with the entity relationship diagram cardinality and symbols. Then we have to show the data structure for the project in the entity relationship diagram. The symbol of the entity relationship diagram shows how they fit together. Before making the ER diagram, we should properly know the meaning of all the symbols and how to use all of them symbols.

Symbol of entity relationship diagram:-

1. **Fields:** This entity shows how the different types of data are used together for a project. The symbol is used to show how the part of the project is working.
2. **Key:** It is a type of technique that is used to categorize the quality of the data. There are two types of keys available for the database. These are as follows.
    - **Primary key:** It is a set of unique properties that are used for finding the specific entity.
    - **A foreign key:** It is a type of key made up of a piece of data with too many links to other things.

Step 2: Finalize the entities included

Start making your ER Diagram by deciding on all the parts your university management system must have. You'll need to leave the area in your design for these rectangles to be included later.

Step 3: Add the attributes of each entity

After you've decided on the entities, think about the traits you'll need for each one. In a conceptual ER diagram, the details of the different entities are given as attributes. Attributes are things like a thing's traits, a many-to-many relationship, or a one-to-one relationship. Attributes with multiple values can be given more than one value.

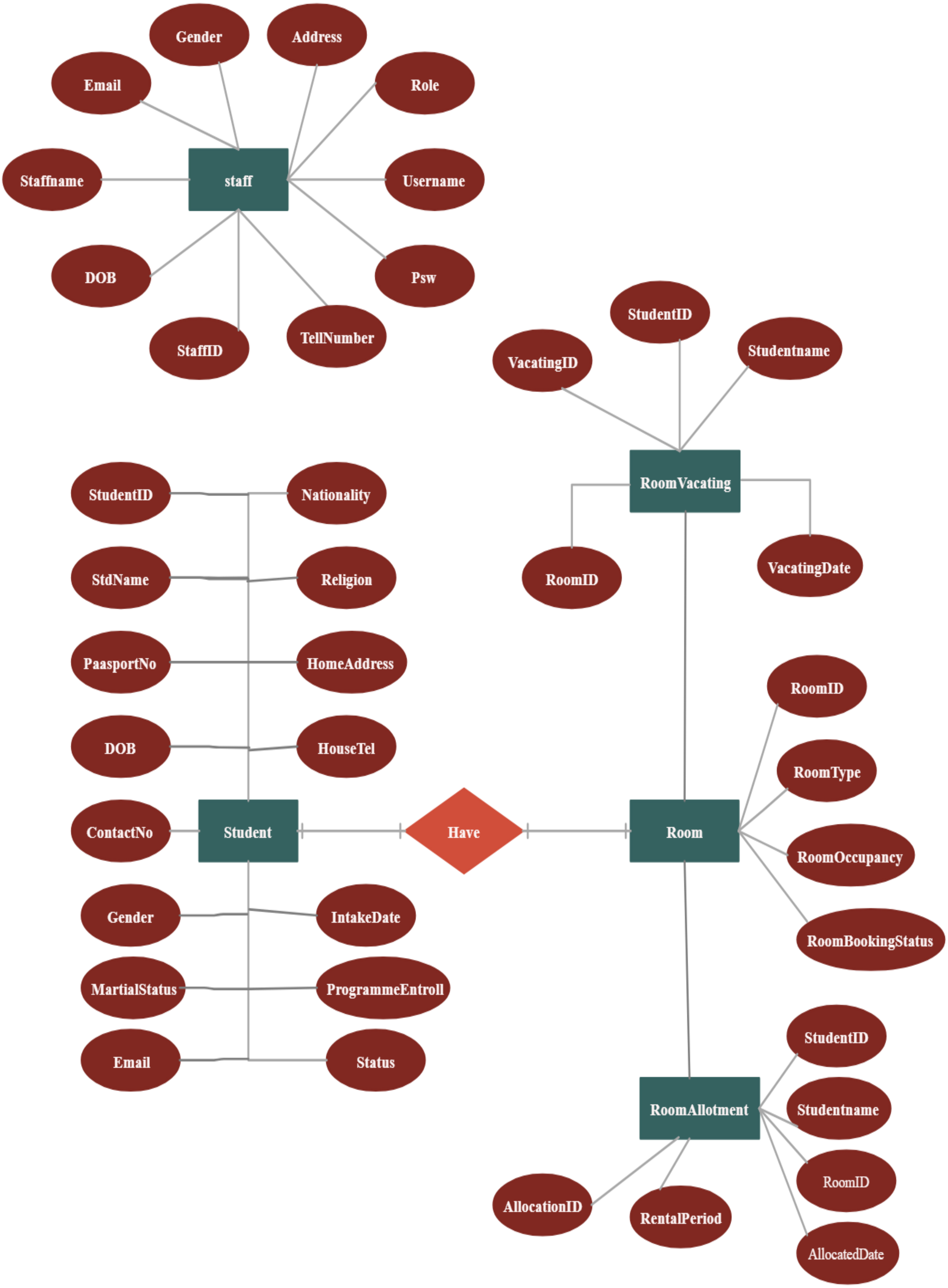
Step 4: Describe the relationships (cardinality) between entities and attributes

You will need the entities, their attributes, and the relationships between them to plot the relationships between the ERD. To get the right entity relationship diagram, you will use the information you gathered to build the data structure.

Conclusion

You need to know how the University Management System was designed and built using diagrams. With the help of an ER diagram will help you make a system that works well. Making it will help you understand how the software works behind the scenes. This is where all the data that goes in and out of the system will be stored.

ER Diagram for Hostel Management system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Username
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RoomID
VacatingDate
StudentID
Nationality
StdName
Religion
PaasportNo
HomeAddress
DOB
HouseTel
RoomID
RoomType
ContactNo
Student
Have
Room
RoomOccupancy
RoomBookingStatus
Gender
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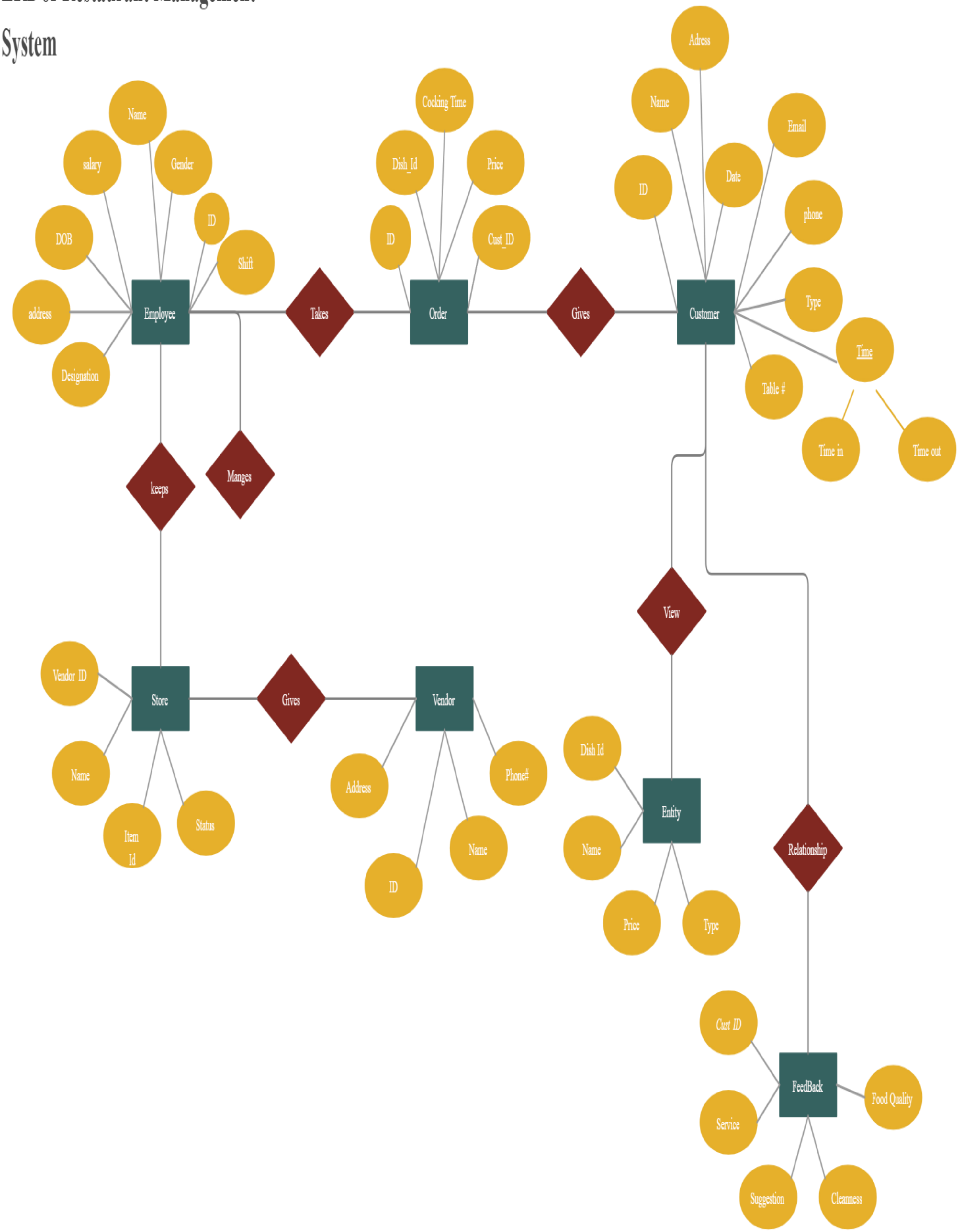
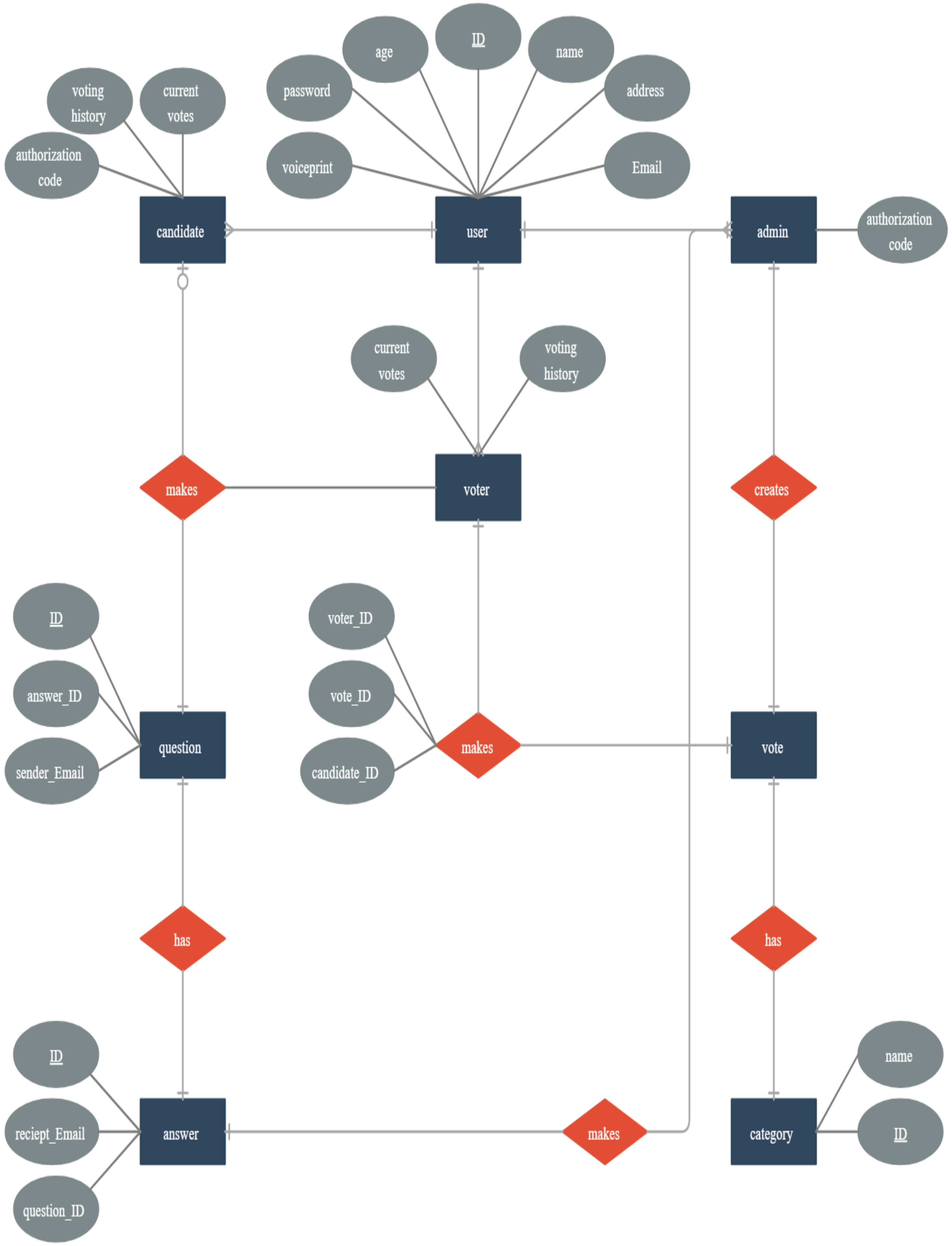
RoomID
AllocationID
RentalPeriod
AllocatedDate

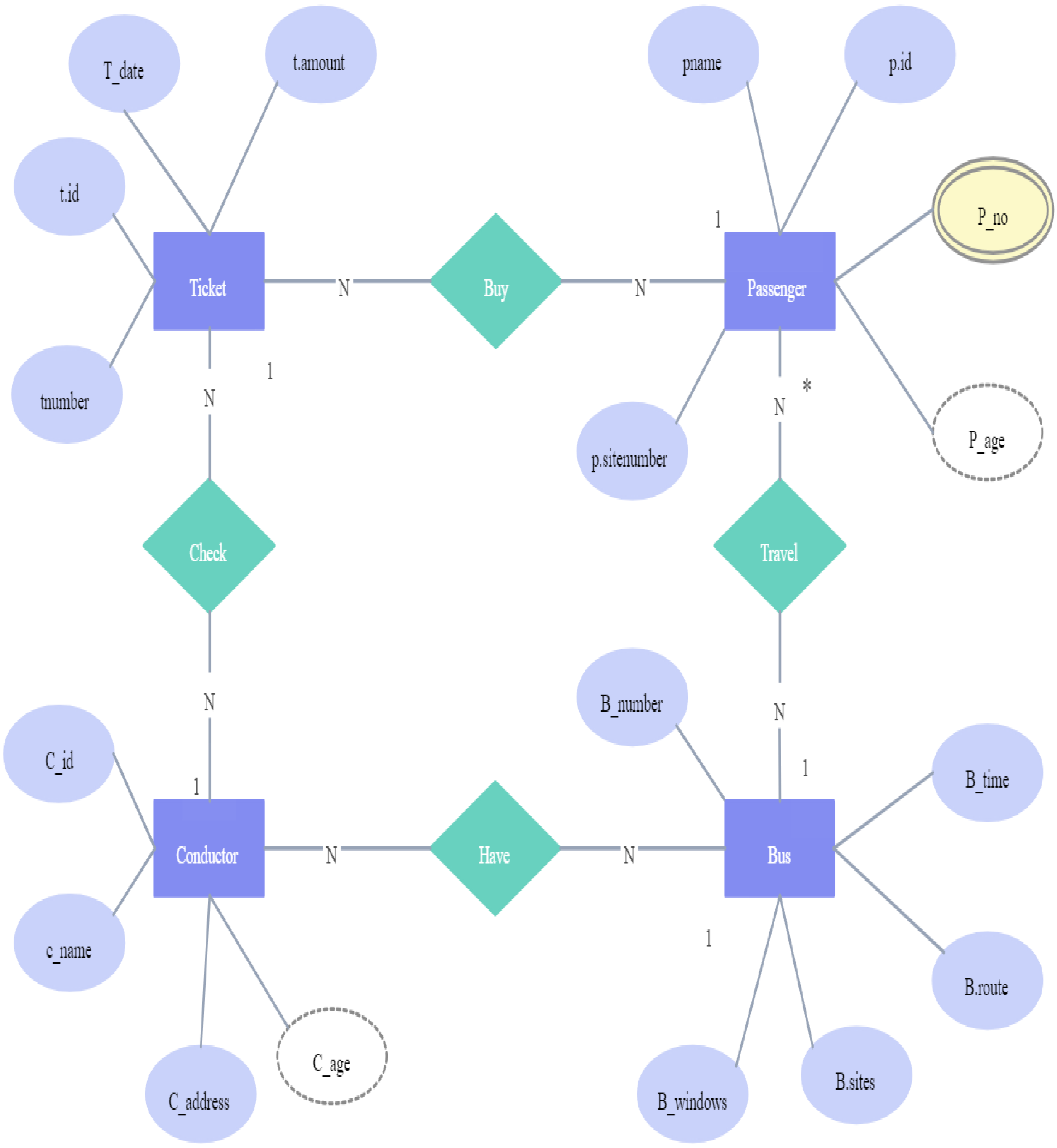
ERDof Restaurant Management System



voting system ERD



Bus Reservation System - ERD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P_age
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B_number
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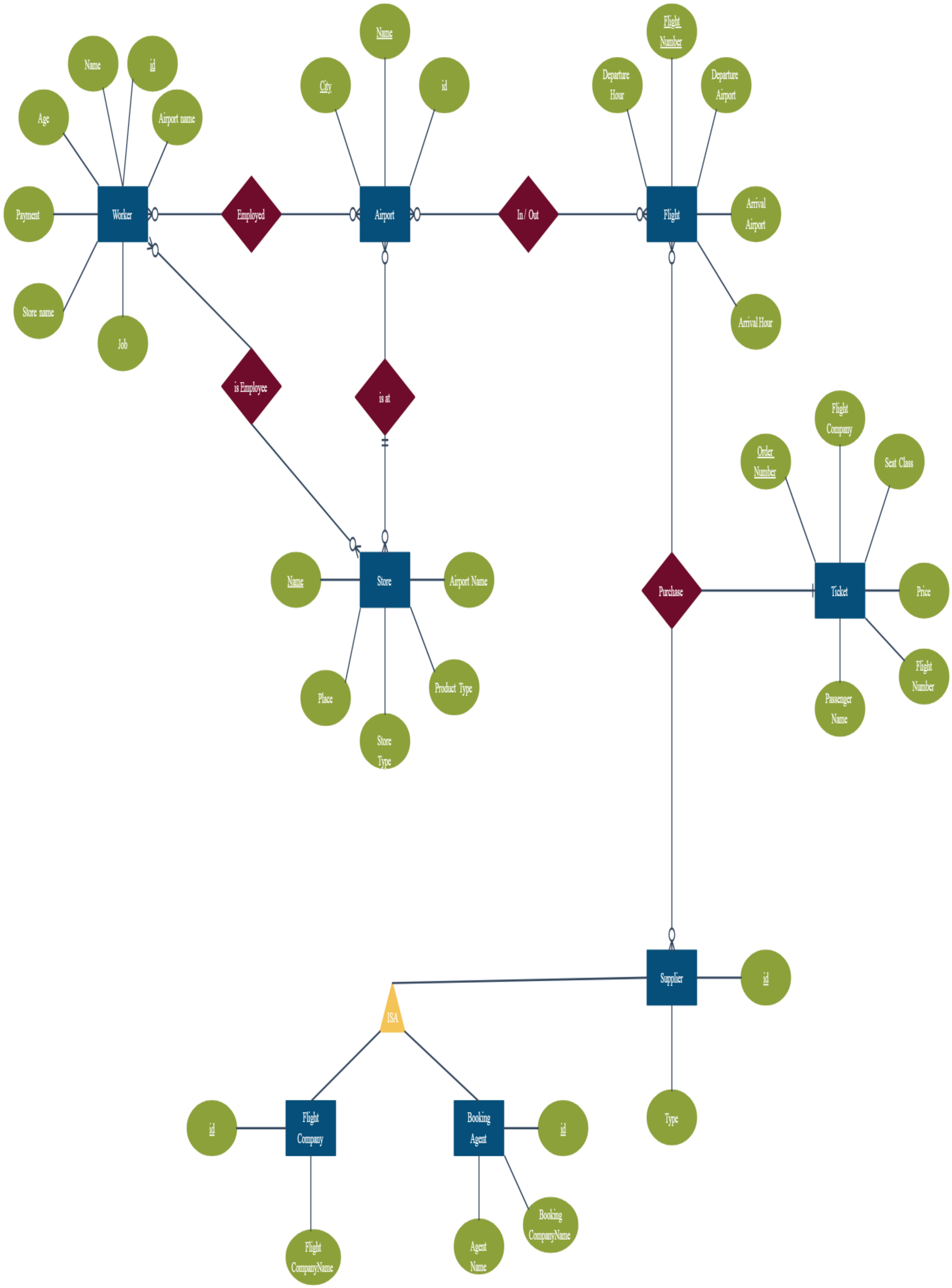
B.route
C_age
B.sites
C_address
B_windows

Airport ERD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Airport Name
Place
Store Type
Product Type
Purchase
Flight Company
Order Number
Seat Class
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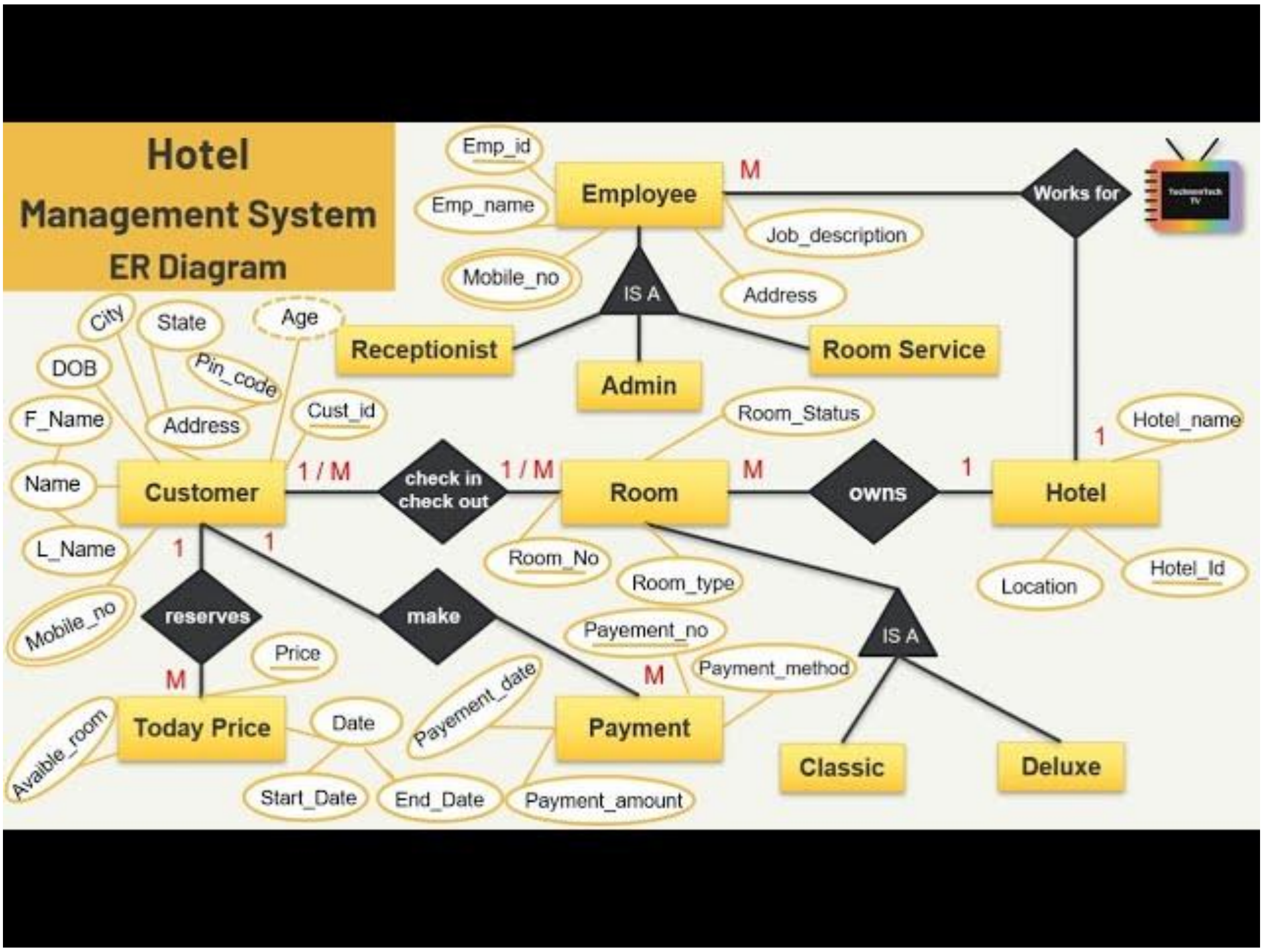
Hotel
Management System
ER Diagram
Emp_id
Emp_name
Employee
M
Works for
Job_description
Mobile_no
IS A
Address
Receptionist
Admin
Room Service
City
State
Age
DOB
Pin_code
F_Name
Address
Cust_id
Room_Status
Hotel_name
Name
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1 / M
check in
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owns
1
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L_Name
1
1
Room_No
Room_type
Location
Hotel_Id
Mobile_no
reserves
make
Payement_no
IS A
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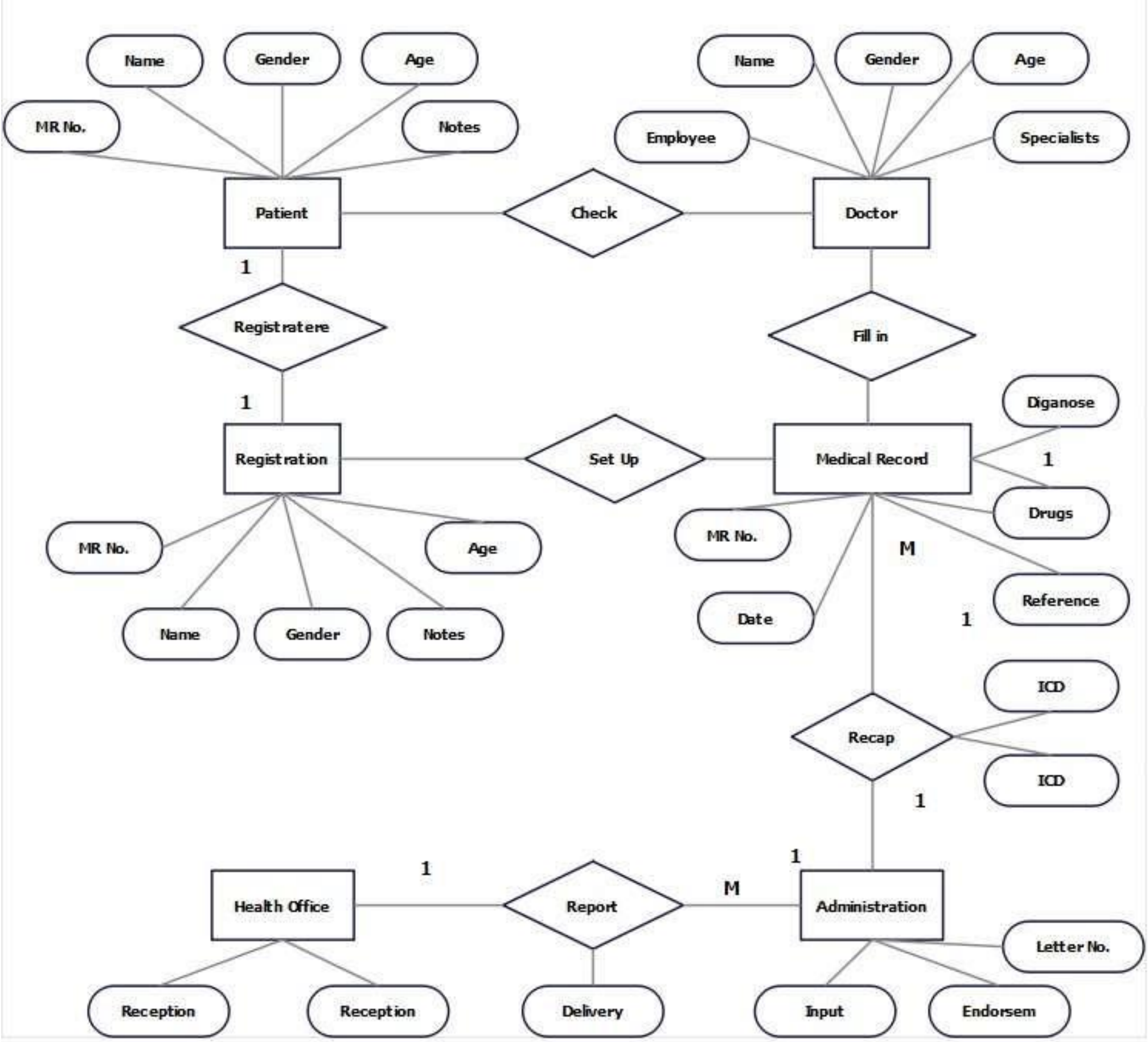


ER Diagram for the Airline Reservation System

In DBMS, an ER diagram for an airline reservation system shows how the databases are connected. It also shows how all the databases are logically related to each other. We can also create an ER diagram by drawing the figure of a different part of the airline reservation system, their properties, and how they perform their task.

We can draw an ER diagram of the airline reservation system by drawing the design of the database. The sketch of the database became the storage of the database where the data comes and goes.

Details Airline Reservation System ER Diagram

Now we describe the overall function of the Airlinereservation System in the below table. It is a complete overview of the information about the Airline reservation project.

Name:	ER Diagram of the Airline Reservation System.
Abstract:	The ER Diagram of the Airline reservation system shows the relationship between various entities. We can also call it the blueprint of the airline reservation system.
Diagram:	We can also call the ER diagram an Entity Relationship diagram.
Tool used:	The ER diagram provides some symbol that is known as the diagramming tool.

What is Airline Reservation System?

The Airline reservation system is a type of system that allows the airline to sell their tickets to the passenger. It contains information regarding the fares and schedule of the flight and the database of the reservation.

What is an ER Diagram

We can also call ER diagram the database design for the airline reservation system project. The ER diagram is like a picture that contains how all the entities are related to each other. The most important part of the ER diagram is Relationships, Attributes, and Entities.

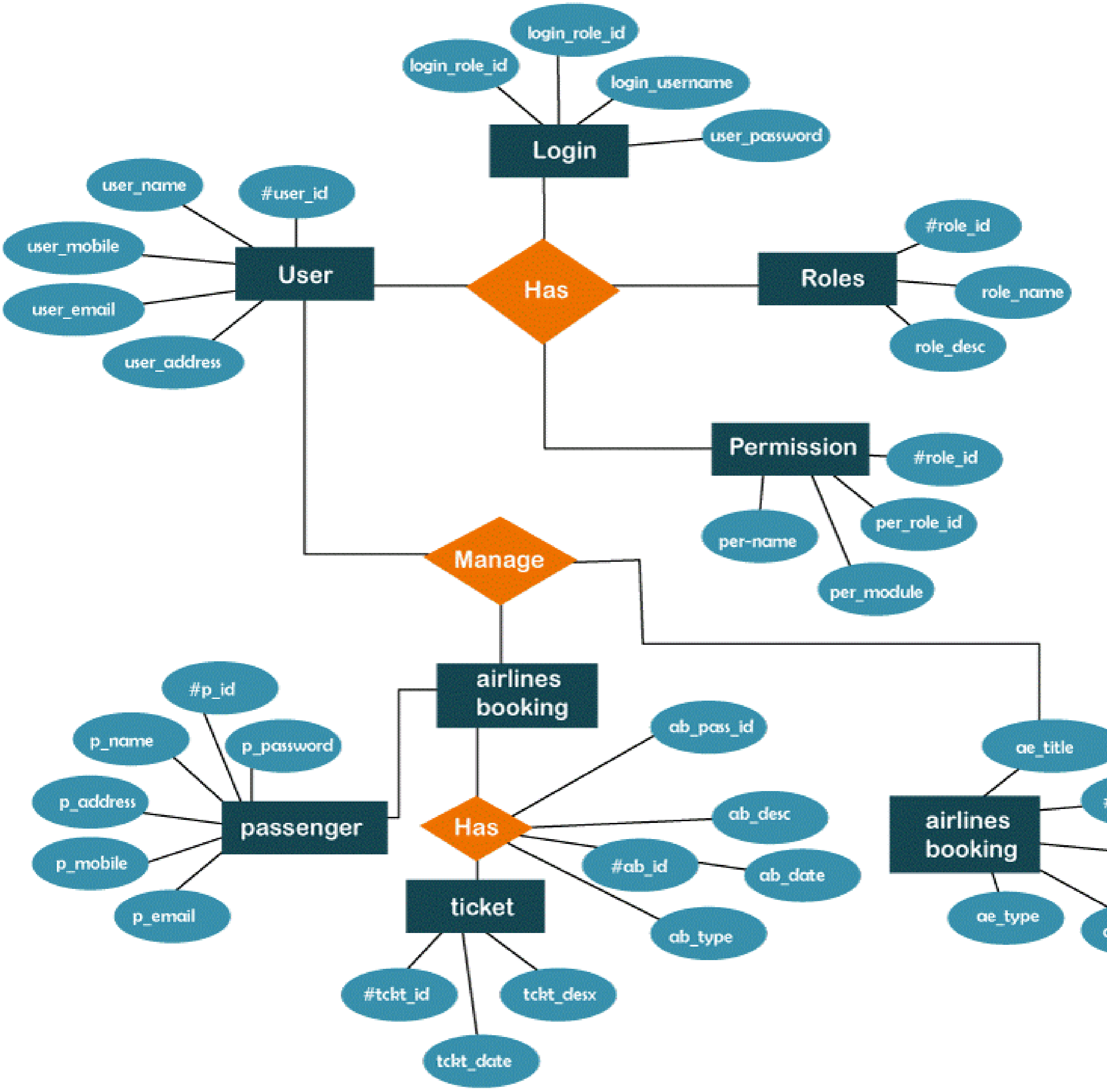
Importance of ER Diagram

The ER diagram for the project is the foundation for building the project's database. The properties, data types, and attributes are defined by the ER diagram.

Entity-Relationship (ER) Diagram for Airline Reservation System

The ER diagram for the airline reservation system, the system data, and their attributes. The data and the attributes are represented by the table, and the table shows how they are related to each other.

Database Design for the Airline Reservation System



The above diagram shows the database design for the airline reservation system. This database design shows all the system data, and the output for the user ate stored in the database. In DBMS, a good ER diagram is needed for the creation of an airline reservation system.

Airline Reservation System ER Diagram Tables

The table below shows all about the table's field name, description, data type, and character length. Each table of the ER diagram defines and explains the data storage.

The field column lists all the attributes of the database that describes each column. The types table of the database shows what kind of data each attribute is, and the length shows how many characters it has.

Table name: Log-In

Field	Description	
Login-ID	Login ID	
Login-role-ID	Login-role ID	
Login_username	User name	
Login_password	Password	

Table name:' users

Field	Description	
User_id	User id	
User_name	Name of the user	
User_mobile	Mobile number	
User_email	Email id	
User_address	address	

Table name: Roles

Field	Description	
Role-id	Role id	
Role_name	Role name	
Role_desc	Role decription	

Table name: permission

Field	Description	
Per_id	Permission id	
Per_role_id	Permission role id	
Per_module	Permission module	
Per_name	Permission name	

Table name: Passeneger

Field	Description	T
P_mobile	Passenger mobile number	in
P_id	Passenger ID	V
P_name	Passenger name	V
P_add	Passenger address	V
P_pass	Passenger password	V

Table name: Airlines Booking

Field	Description	
ab_desc	Booking description	
ab_date	Booking date	
ab_pass_id	Passenger Booking ID	
Ab_type	Booking type	

ab_ID	Booking ID

Table name: Ticket

Field	Description
Tckt_id	Ticket ID
Tckt_desc	Ticket description
Tckt_date	Ticket date

Table name: Airline Enquiry

Field	Description
Ae_title	Title of the Enquiry
Ae_id	Enquiry ID
Ae_desc	Enquiry description
Ae_date	Enquiry date
Ae_type	Enquiry type

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