**EER DIAGRAM REPORT**

**The Entities and their Attributes (design choices) in the EER Diagram designed for the project are**

1. **Entity: MEMBER**

* Table to keep track of all library user accounts.

**Attributes**

* **Card\_No(Primary Key):Unique identity number issued by librarian**
* **SSN (Unique):** Unique to distinguish every valid user.
* **Name:** Name Of the User
* **Phone**: Phoneof the User.
* **Campus\_Address**: University Campus Address of the User.
* **Home\_Address:** Home Address of the User.
* **Member\_Type:** To Distinguish Whether member is a student or Professor.

Specialization of member is on basis of Member\_type.

1. **Entity :BOOK**

* Table to keep Records of all Books available in Library.
* Book Table Is Further Divided into multiple Table as follows for faster and easy access of data .(Refer Relational Diagram)
* **Book\_Logs:** Shows Each and Every Book

**Attributes**

* **Book\_ID (Primary Key):** Identify Each and every book (Including copies) uniquely.
* **ISBN (Foreign Key):** To Identify Each Different Book available.
* **Title:** Refers to the title of the Book.
* **Author:** Refers to The Author of the Book.
* **Subject\_Area:** Define the Subject Area of the Book.
* **Publisher:** Describe The Publisher of the Book
* **Description:** Has description regrading every book.
* **No\_Of\_Copies\_Available:** Number of Books Available to rent.
* **No\_Of\_Copies\_Rented:** Number of Books Rented.

1. **Entity :CATLOG**

* This table is used to Search books For User and is also used to manage all books by the Library Staff.

**Attributes**

* **ISBN (Primary Key):** Identify every book.
* **Description:** Has description regrading every book.
* **No\_Of\_Copies\_Available:** Number of Books Available to rent.
* **No\_Of\_Copies\_Rented:** Number of Books Rented.
* **Subject\_Area:** Define the Subject Area of the Book.

1. **RelationShip type:Loans**

* Gives Information about the Rented Books.

**Attributes**

* **Book\_ID (Foreign Key):** Unique Id of the book.
* **Card\_No (Foreign Key):** Unique Id of the Renter.
* **Date\_Out:** Date when the User Issued the Book.
* **Due\_Date:** Date when User has to return the Book.

1. **Entity :Library Staff**

* Has the Record of all the employee of the library.

**Attributes**

* **SSN(Primary Key):**Uniquely identify every employee.
* **Name:** Name of the Employee
* **Position:** Designation of the Employee.
* **Issued\_Book\_ID:** Has the Id of the Book they issued.

Specialization of Library\_staff is on basis of Position.

1. **Loans, Book\_Logs, Catalog** are the tables which are inherited from BOOK Table.
2. **Borrower:**It Gives information about the Book Renter, and it is inherited from Member Table.