Creating a detailed Entity-Relationship (ER) diagram for your system would require a more in-depth understanding of the specific entities, relationships, and attributes involved. However, I can provide you with a high-level ER diagram based on the information you've provided. Please note that this is a simplified representation, and you may need to expand it based on your specific requirements.

Entities:

1. \*\*User:\*\*

- Attributes: UserID (Primary Key), Username, Password, Role

2. \*\*Student:\*\*

- Attributes: StudentID (Primary Key), Name, DOB, Address, ContactNumber, Email

3. \*\*Parent:\*\*

- Attributes: ParentID (Primary Key), Name, Address, ContactNumber, Email

4. \*\*Teacher:\*\*

- Attributes: TeacherID (Primary Key), Name, SubjectSpecialization, ContactNumber, Email

5. \*\*LibraryItem:\*\*

- Attributes: ItemID (Primary Key), Title, Author, ISBN, Quantity

6. \*\*Class:\*\*

- Attributes: ClassID (Primary Key), ClassName

7. \*\*Subject:\*\*

- Attributes: SubjectID (Primary Key), SubjectName

8. \*\*Attendance:\*\*

- Attributes: AttendanceID (Primary Key), StudentID (Foreign Key), ClassID (Foreign Key), Date, Status

9. \*\*Grade:\*\*

- Attributes: GradeID (Primary Key), StudentID (Foreign Key), SubjectID (Foreign Key), Marks

10. \*\*Communication:\*\*

- Attributes: CommunicationID (Primary Key), SenderID (Foreign Key), ReceiverID (Foreign Key), Message, Date

11. \*\*LibraryTransaction:\*\*

- Attributes: TransactionID (Primary Key), StudentID (Foreign Key), ItemID (Foreign Key), DateBorrowed, DateReturned

12. \*\*Exam:\*\*

- Attributes: ExamID (Primary Key), ClassID (Foreign Key), SubjectID (Foreign Key), Date, Time

Relationships:

1. \*\*User-Authentication:\*\*

- One-to-One relationship between User and Student, Parent, Teacher

2. \*\*Parent-Teacher Communication:\*\*

- Many-to-Many relationship between Parent and Teacher through Communication

3. \*\*Student-Attendance:\*\*

- Many-to-Many relationship between Student and Attendance

4. \*\*Student-Grade:\*\*

- Many-to-Many relationship between Student and Grade

5. \*\*Library-Transaction:\*\*

- Many-to-Many relationship between LibraryItem and Student through LibraryTransaction

6. \*\*Class-Scheduling:\*\*

- Many-to-Many relationship between Class and Subject through Exam

Please note that you might need to add more details based on your specific needs and refine the relationships further. This is a starting point, and the actual ER diagram may vary based on your project's specific requirements and additional details.