

Classes:

1. Library:

- Fields:
 - List of Members
 - Catalogue of Items
- Methods:
 - **addMember(Member member)**
 - **addMaterial(Material material)**
 - **issueItem(String membershipId, String itemReference)**
 - **returnItem(String itemReference)**
 - **generateInventoryReport()**
 - **generateLoansReport()**
 - **lookupMembership(String membershipId)**
 - **exit()**

2. Member:

- Fields:
 - First Name
 - Last Name
 - Date of Birth
 - City
 - Zip code
- Methods:
 - Getters and setters for member details

3. AdultMember (inherits from Member):

- Fields:
 - Membership ID

- Methods:
 - Getters and setters for member ID

4. **ChildMember (inherits from Member):**

- Fields:
 - Membership ID
 - Guardian (reference to an AdultMember)
- Methods:
 - Getters and setters for member ID and guardian

5. **Material:**

- Fields:
 - Item Reference
 - Title
 - Suitable for Children
 - Replacement Value
 - Location
- Methods:
 - Getters and setters for material details

6. **Book (inherits from Material):**

- Fields:
 - Author
 - ISBN
 - Number of Pages
- Methods:
 - Getters and setters for book details

7. **Magazine (inherits from Material):**

- Fields:

- Publication Date
- Issue Number
- Methods:
 - Getters and setters for magazine details

8. **DVD (inherits from Material):**

- Fields:
 - Release Date
 - Duration (in minutes)
- Methods:
 - Getters and setters for DVD details