Introduction

1.1 Scope

The DLoA system will allow historians and purveyors of the ancient arts to rediscover the vast literature and knowledge lost to us on that fateful day. The system will allow the user to search through the database for specific works, and view their status, as well as track borrowing and return records, fees for late returns, and other information. It will also be able to generate various kinds of reports, such as revenue from late fees, trends in borrowing, works that are near return date, as well as some others. We aim to please!

1.2 Glossary

SQL: Structured query language
EECS: Electrical Engineering and Computer Science
KU: University of Kansas
SSH: Secure Shell
RDP: Remote Desktop Protocol
ID: Identification
DLoA: Digital Library of Alexandria

Identify ER Modeling Components

Legend
Primary Keys are underlined.
Foreign Keys are in bold.

1. Work
    1. MatID: Int, Not NULL
    2. Title: String, Not NULL
    3. Year: Int, Not NULL
2. Literature Piece (Child of Work)
    1. Genre: String
    2. Substrate: String
3. Ancient Mathematics (Child of Work)
    1. Date Proved: Int, greater than Year
    2. Focus: String
4. Work of Art (Child of Work)
    1. State of Repair: String
    2. Restoration Date: Int

5. Creator
    1. CreID: Int, Not NULL
    2. First Name: String, Not NULL
    3. Last Name: String
    4. Phone Number: Int
    5. Email: String
6. Client
    1. AcctID: Int, Not NULL
    2. First Name: String, Not NULL
    3. Last Name: String
    4. Phone Number: Int
    5. Email: String
    6. Account Tier: Int
    7. Account Age: Int, Not NULL
7. Administrator
    1. AdmID: Int, Not NULL
    2. First Name: String, Not NULL
    3. Last Name: String
    4. Age: Int
    5. Phone Number: Int
    6. Email: String
    7. Activity Status: String
    8. Permissions: List[String]

8. Creates (One Creator to One Work)
    1. **CreID** (Creates.CreID → Creator.CreID)
    2. **MatId** (Creates.MatID → Work.MatID)
9. Copy
    1. CopyID: Int
    2. **MatID** (Copy.MatID → Work.MatID)
    3. Available: Bool
10. Loan (One Copy to One Client via One Administrator)
    1. **CopyID** (Loan.CopyID → Copy.CopyID)
    2. **AcctID** (Loan.AcctID → Client.AcctID)
    3. **AdmID** (Loan.AdmID → Administrator.AdmID)
    4. Loan Date: Int
    5. Due Date: Int
    6. Return Date: Int

Create the ER Model

The ER conceptual model will be posted directly to the GitHub repository, and can be found there.

Appendices

N/A rn