Academia Student Information System

Core Requirements, Secondary Requirements and Entity Relationship Diagram

Rapid Application Development

SUBMITTED BY

Group H

IN PARTCIAL FULFILMENT OF THE REQUIREMENTS

FOR

The Rapid Application Development Study Unit CST 243-3

DEPARTMENT OF COMPUTER SCIENCE & INFORMATICS

UVA WELLASSA UNIVERSITY BADULLA

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1. Requirements

Core requirements for the initial prototype

1.User Interface:

- Home Page: A central hub connecting all the pages of the system.
- Login Page and Forgot Password: Secure login functionality for users.
- Search Function: Allow users to search for books based on title, publication date, author, etc.
- Cataloging: Ability for librarians to add and delete books from the system.
- Circulation: Enable users to check book availability, track book location (bookshelf number and row number), and borrow/return books.
- Managing Patron Accounts: Librarians should be able to add and remove new members, manage user details, and track borrowing history.
- Membership Management: Manage user database with details of every library member.
- Statistical Page: Generate reports and statistics related to book circulation, member activity, etc.

2.Database Connectivity:

- User Database: Maintain user details such as usernames, passwords, and other relevant information.
- Book Database: Store information about every book in the library, including title, author, publication date, availability status, and location.

Secondary requirements for future development

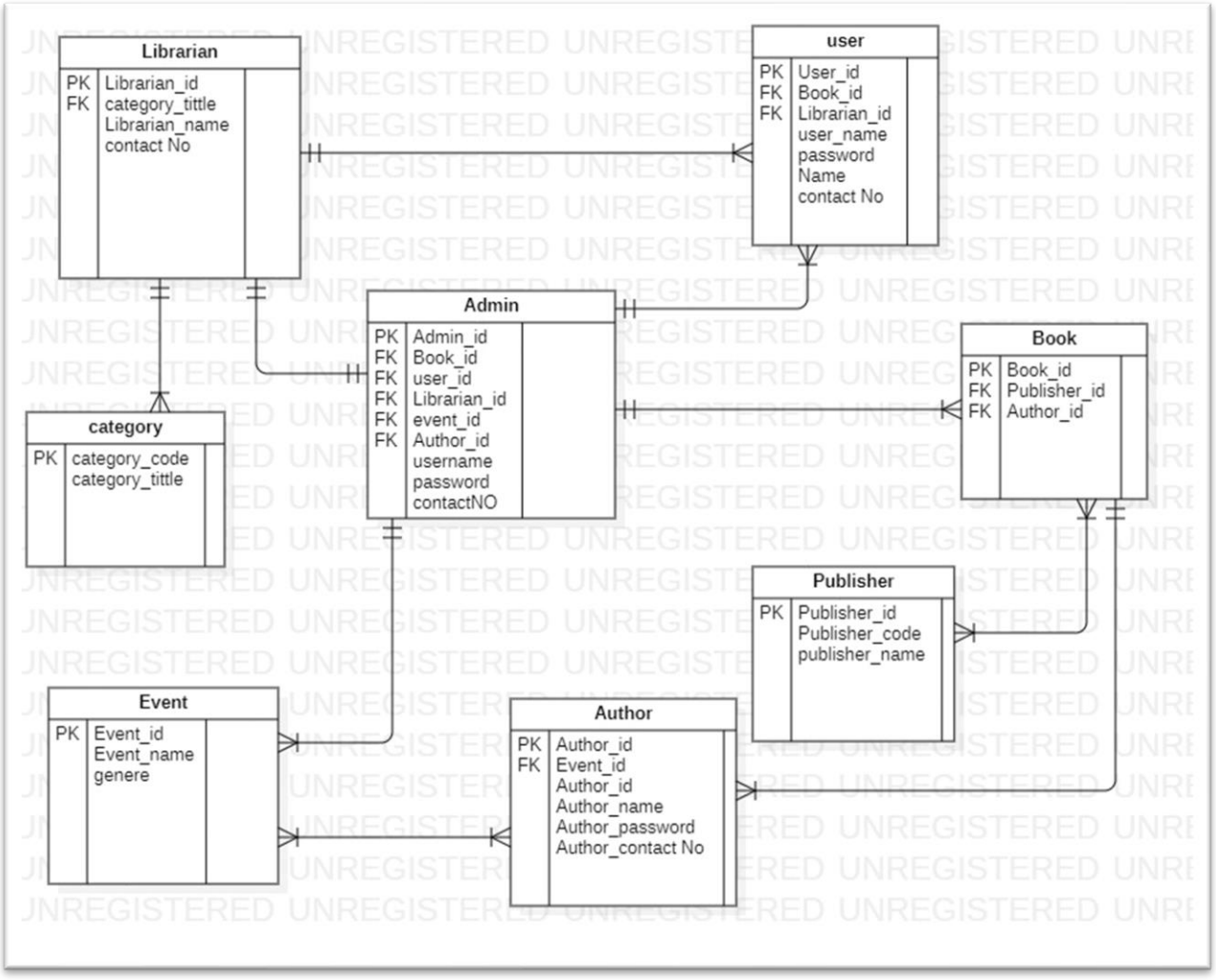
1. Security:

- Implement appropriate security measures to protect user information and prevent unauthorized access.
- Compatibility and Scalability:
- Ensure the system works seamlessly with different hardware and software configurations.
- Design the system to handle a large number of users and transactions simultaneously without performance degradation.

2. Efficiency and Reliability:

- Optimize the system for fast response times, especially for common operations like borrowing resources.
- Implement an efficient data storage mechanism to handle the large volume of data generated by the library system.
- Ensure the system is reliable, minimizing the chances of data loss or system failures.
- User-Friendliness:
- Design an intuitive and user-friendly interface that is easy to navigate and understand.

2. Entity Relationship Diagram



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