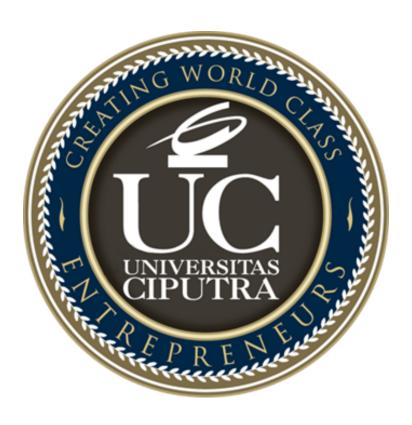
LSP CERTIFICATION My Library

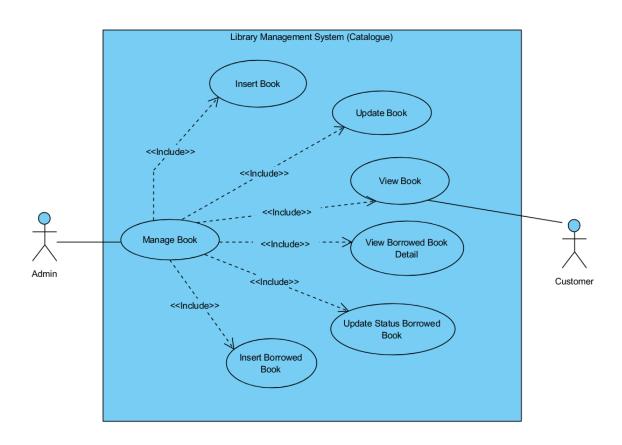


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Information System for Business
Universitas Ciputra Surabaya
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Chapter I Unified Modelling Language (UML) Diagram

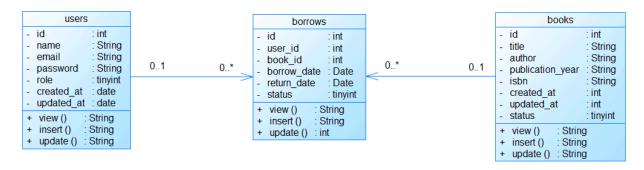
1.1. Use Case Diagram



Use Case Explanation:

- 1. View Book: to see list of available and not available books in library
- 2. Insert Book: to input new book catalogue into library
- 3. Update Book: to update information of the book
- 4. View Borrowed Book Detail: to see borrowed book by borrower and theirs return date
- 5. Update Status Borrowed Book: to update status of borrowed book to finish
- 6. Insert Borrowed Book: to input book that will be borrowed by borrower

1.2. Class Diagram



Class Diagram Explanation:

Cardinality: Many to Many

1. Class User

- a. Attribute: id, name, email, password, role, created_at, update_at,
- b. Method: view(), insert(), update()

2. Class Books

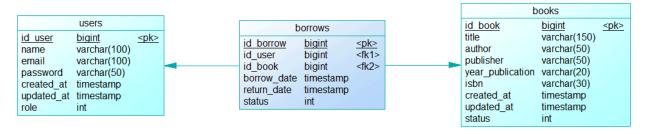
- a. Attribute: id, title, author, publisher, publication_year, isbn, created_at, updated at, status
- b. Method: view(), insert(), update()

3. Class Borrows

- a. Attribute: id, user id, book id, created at, updated at, status
- b. Method: view(), insert(), update()

Chapter II Database

2.1. Database Design



Database Design Explanation:

1. Users

| Key | Data Type | Length |
|------------|-----------|--------|
| id | bigint | |
| name | varchar | 100 |
| email | varchar | 100 |
| password | varchar | 50 |
| created_at | timestamp | |
| updated_at | timestamp | |
| role | int | |

2. Books

| Key | Data Type | Length |
|------------------|-----------|--------|
| id | bigint | |
| title | varchar | 150 |
| author | varchar | 50 |
| publisher | varchar | 50 |
| publication_year | varchar | 20 |
| isbn | varchar | 30 |
| created_at | timestamp | |
| updated_at | timestamp | |
| status | int | |

3. Users

| Key | Data Type | Length |
|------------|-----------|--------|
| id | bigint | |
| user_id | bigint | |
| book_id | bigint | |
| created_at | timestamp | |

| updated_at | timestamp | |
|------------|-----------|--|
| status | int | |

Chapter III User Testing Scenario

3.1. Testing Design

| No. | Scenario | Steps | Expected Result | Actual Result |
|-----|------------------|--|-----------------------------|---|
| 1. | Register account | User register account by clicking register button on the header page Register page pop-up on the top of page Fill name, email, password, confirm password Click submit button | Register successful | Register successful as expected |
| 2. | Login account | User and Admin login account by clicking login button on the header page Login page pop-up on the top of page Fill email & password Click login button | Login successful | Login successful as expected |
| 3. | Forgot password | User and Admin login account by clicking login button on the header page | Password reset successfully | Password reset successfully as expected |

| | | Login page pop-up on the top of page Click forgot your password hyperlink Reset password via email pop-up on the top of page Open mailhog (localhost:8025) and click reset password link via mailhog Fill new password and password confirmation Click submit for reset password | |
|----|-----------------------------------|---|--|
| 4. | Remember me | User and Admin login account by clicking login button on the header page Login page pop-up on the top of page Click remember me checkbox Open new browser Textbox email and password filled automatically on the other browser because of remember token | |
| 5. | View list book for admin and user | 1. After login, list book ap book appear on List book ap successfully | |

| | | the top of page and it shows all information of book in library | successfully |
|----|------------------------|---|--|
| 6. | Add new book catalogue | After login, click home icon on the top left corner of header Click add new book catalogue Fill all the blank textbox or requirement Click save and it'll redirect to admin view page and it'll show new added book on list book | New book inserted successfully and showed on list book as expected |
| 7. | Edit book catalogue | After login, click home icon on the top left corner of header Click edit button on the specified book that you want to update on actions column All of the textbox will be filled automatically based on the data that the user chooses Update the information that you want Lastly, click edit for saving it | Information updated successfully as expected |
| 8. | Add borrower's book | After login, click home icon on the top left corner of header Click borrower's book input button Choose the book and the user that Borrower's data inserted successfully Borrow date filled automaticall y | 1. Borrower's data inserted successful ly 2. Borrow date filled automatic |

| | | you want (only available book will be shown on the dropdown) 4. Borrow date and return date will be automatically filled/calculated +7 days from borrow date) 5. Click save for input borrower's book 3. Return date filled/calcul ated 7 days filled/calculated date filled/calculated filled/calculated date filled/calculated date filled/calculated filled/calculated date filled/calculated date filled/calculated filled/calculated date filled/calculated date date filled/calculated filled/calculated filled/calculated date filled/calculated filled/calculated filled/calculated date filled/calculated date filled/calculated date filled/calculated date filled/calculated filled/calculated date filled/calculated filled/calculated filled/calculated date filled/calculated | m |
|-----|---------------------------|---|---|
| 9. | View borrower's book data | After login, click home icon on the top left corner of header Click view borrower's book data button List borrower's book data shown all of the information List borrower's book data shown all of the information as expected | n |
| 10. | Edit borrower's book data | 1. After login, click home icon on the top left corner of header 2. Click view borrower's book data button 3. Choose specified borrower's book data and click finish button on the actions column 4. After click finish button, the column status of the user chooses will be updated Status of specified data changed successfully to reservation done from reservation on going status Status of specified data changed successfully to reservation done from reservation on going as expected Status of specified data changed successfully to reservation done from reservation on going as expected | e |

| | from reservation on going to reservation done | | |
|--|---|--|--|
|--|---|--|--|