

Digital Book Purchase Project

This is a fictional project that aims to apply microservices concepts and further improve skills in the field of application development.

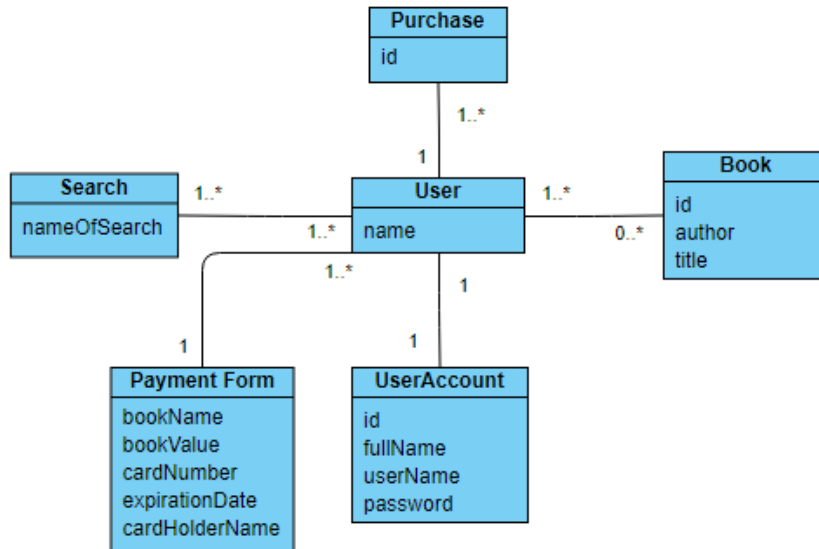
1. System Request

Digital Book Purchase Project
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Business Need: This project aims to expand reading universally through the purchase of books that can be found on the internet, using the website.
Business Requirements: Through the Website, customers will be able to search for and purchase digital books that can be downloaded onto their devices. The system should have features such as: <ul style="list-style-type: none">• Create a user account• Search for any book in the system• Buy digital books

2. Requirements Definition

Functional Requirements: <ol style="list-style-type: none">1. Search<ol style="list-style-type: none">1.1. The system will allow the user to search for books.1.2. The system will allow the user to browse through a list of existing books.2. Purchase<ol style="list-style-type: none">2.1. The system will enable the user to create a user account to store user data.2.2. The system will enable the user to select the book chosen for purchase.2.3. The system will collect the user's payment data. Once payment has been verified, the book will be available for download.
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3. Domain Model Definition



4. Definition of System Operations

Actor	Story	Query	Description
User	Search Book	getAllTheExistingBooks()	Return all books that exist in the system matching the search string
User	Create an account	createUserAccount()	Create an account in the system from the data provided by the user
User	Purchase Book	purchaseBook()	Indicates that the payment data for the book is sent and processed by the system

5. Specification of System Operations

Operation	getAllTheExistingBooks(search word)
Return	bookId
Preconditions	—
Post-conditions	—

Operation	createUserAccount(fullName, userName, password)
Return	userId
Preconditions	<ul style="list-style-type: none"> There is no user with the same data.
Post-conditions	<ul style="list-style-type: none"> User account is created.

Operation	purchaseBook(cardNumber, expirationDate, cardHolderName)
Return	purchaseld
Preconditions	<ul style="list-style-type: none"> Card is valid. Cardholder has sufficient credit.
Post-conditions	<ul style="list-style-type: none"> Purchase status is PENDING_PURCHASE. Purchase status is PURCHASED. Book available for download.

6. Identifying Business Capabilities

- User management - Managing information about users
- Purchase management - management of information about users' purchases
- Book management - managing available books

7. Defining Services

