

Domain description

The user of the app is identified by a unique user ID and has associated attributes of username, password, and profile description to personalize the user's experience within the app. Each user has a personal library that represents the user's collection of audiobooks. A LibraryID identifies the library. Audiobooks are represented by Audiobook entity, identified by AudiobookID, and attributes such as title, author, genre, description, duration, and narrator. Moreover, each audiobook is divided into chapters with unique chapterIDs. Chapters contain actual audiobook content and multiple options for the user to choose from to interact with the plot. Options are associated with a specific chapter and determine where the user's decision leads in the story.

Entities:

User: A user of the application, each having access to their library of audiobooks.

Manager: Privileged user, whose job is to receive audiobooks from publishers, format them and upload them to the app.

Publisher: Creator of the audiobook. They need to contact the manager first to forward their creation to the app.

Library: A collection of audiobooks that belongs to a user.

Audiobook: Represents individual audiobooks available in the application.

Chapter: A part of an audiobook that offers multiple options for users to choose from.

Option: A decision point within a chapter for a user to interact with the plotline. Leads to attribute indicates the chapter it leads to.

Progress: Saves user's progress through chapters and their choices.

Relationships:

User-Library (1-1): Associates a user with their library.

Library-Audiobooks (1-Many): Represents many audiobooks stored in the user's library.

Audiobook-Chapter (1-Many): Shows that each audiobook consists of many chapters.

Chapter-Option (1-Many): Indicates that each chapter provides many options for the user to choose from to affect the plotline.

User Progress (n-ary association (User, Chapter, Option)): Tracks user's progress throughout the plot.

Events:

Option Selection: This happens when the user chooses an option within the chapter and progresses to a predetermined chapter.

Audiobook Upload: Occurs when the Manager uploads an accordingly formatted audiobook.

UML diagram:

