

Database Schema

User(UserID, Username, Password, Credit)

LoginSession(SessionToken, UserID, ExpirationTime)

- Foreign key UserID references User

Story(StoryID, WriterID, URL, PostedDate, Title, Genre, Blurb, WordCount)

- Foreign key WriterID references User

Review(ReviewID, ReviewText, ReviewerID, StoryID, Stars)

- Foreign key ReviewerID references User
- Foreign key StoryID references Story

Reservation(UserID, StoryID)

- Foreign key UserID references User
- Foreign key StoryID references Story

Database Schema Explanations

(FD means Functional Dependencies and shows evidence of normalization for each table)

User

- Holds the personal information about each user
 - Username and Password: login information and display name for the site
 - Credit: The amount of credit (currency for the website) that the user has
- FD: UserID -> Username, Password, Credit

LoginSession

- Holds the auth tokens for a particular user's session
 - SessionToken: The auth token for the particular session
 - ExpirationTime: The time at which the token is no longer valid
 - UserID: The id of the user this session belongs to
- FD: SessionToken -> ExpirationTime, UserID

Story

- Holds the information about each posted story
 - StoryID: An arbitrary ID generated by the server
 - WriterID: The UserID of the user who posted the story
 - URL: The link to where other users can read the posted story
 - PostedDate: The date the story was posted
 - Title: The title of the story
 - Genre: One out of a predefined set of genres a story can be

- Blurb: The poster's summary of the story or any other information they want to share with other users
- WordCount: The number of words in the story
- FD: StoryID -> WriterID, URL, PostedDate, Title, Genre, Blurb, WordCount

Review

- Holds relevant information about each review, connecting it to the story it is reviewing
 - ReviewID: The auto incrementing ID for the review
 - ReviewText: The review itself
 - ReviewerID: the UserID of the user that wrote the review
 - StoryID: The StoryID of the story corresponding to this review
 - Stars: The rating that the user gave this review, out of 5 stars. **Nullable**
- FD: ReviewID -> ReviewText, ReviewerID, StoryID, Stars

Reservation

- Links users to stories they've claimed to review
 - UserID: The id of the user who has claimed a story
 - StoryID: The id of the story that has been claimed
- Since the only two columns together comprise the primary key of this table, there are no functional dependencies.