Requirement specification

TITLE: Short stories and poems publications search engine		
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1. Hardware Specification

The hardware requirements for the project are as below:
- Processor: Pentium® Dual Core CPU, or Higher versions
- Hard Disk: Minimum 40GB
- Memory: Minimum 2GB RAM
- Android Mobile Device with Version 5.0>, minimum 4GB RAM and minimum 16GB Internal Memory

2. Software Specification

The package is developed using XML - Java as front end. Android SQLite Server as the backend to store the database of the mobile application.
- Operating System: WINDOWS 8 or higher, Android 5.0 or higher
- Language: Java Runtime Environment, Android Studio, XML
- Relational Database: Android SQLite Server (back end)
- NoSQL Database: Google FIREBASE Server (back end)

3. Functional Requirements

The functional requirements of the project include:

1. Authentication

The admin can perform special functions by getting their credentials authenticated in the form of a username and password. The Publisher has separate credentials for authentication. He is given the privilege of uploading publications, modifying and deleting them. On invalid credentials, general user mode is applied.

- Transaction logs must be kept for each service provided.
- The user's password must never be exposed to compromise.
- User session logs stored for usability and other research must be anonymous.

2. Item Download

When we download a publication, the system shall show all the publication and publisher details and the particular poem/short story in a pdf format. This function can be performed by any general user accessing this system.

3. Search item

The user can enter any keyword, which is used as a comparator to display a list of publications which are matching to it, sorted by publication attributes including:
- The category
- The title
- The Publisher

When required by users, the system shall display the information about a particular-item, on selection:
- The story/poem name, publication date etc..
- A brief description
- The publisher details

4. Data Entry

The data entry requirements are concerned with how the story/poem publications are entered and validated.

- The system shall allow a user to enter his/her data via a keyboard
- The system shall allow a user to enter his/her data and choose an item via a touch screen on the phone.
- Whenever the "date" data is needed, it shall be entered only by selecting a date from an online calendar.
- The system shall allow the user to view publication, search records ,recalling data as frequently as required.
- The system shall allow the user to add or change information in an account including: last name, first name, user ID etc.
- The system shall allow the user to attach any file of the specified format and upload it to the database.
- The system shall allow the user to delete an entire account.

5. Data Filter

The user can select a category of items to view. The items belonging to the selected category are extracted from the database based on the category keyword, which is used as the filter. On printing the filtered set, the user can then select to view a particular item or go back.
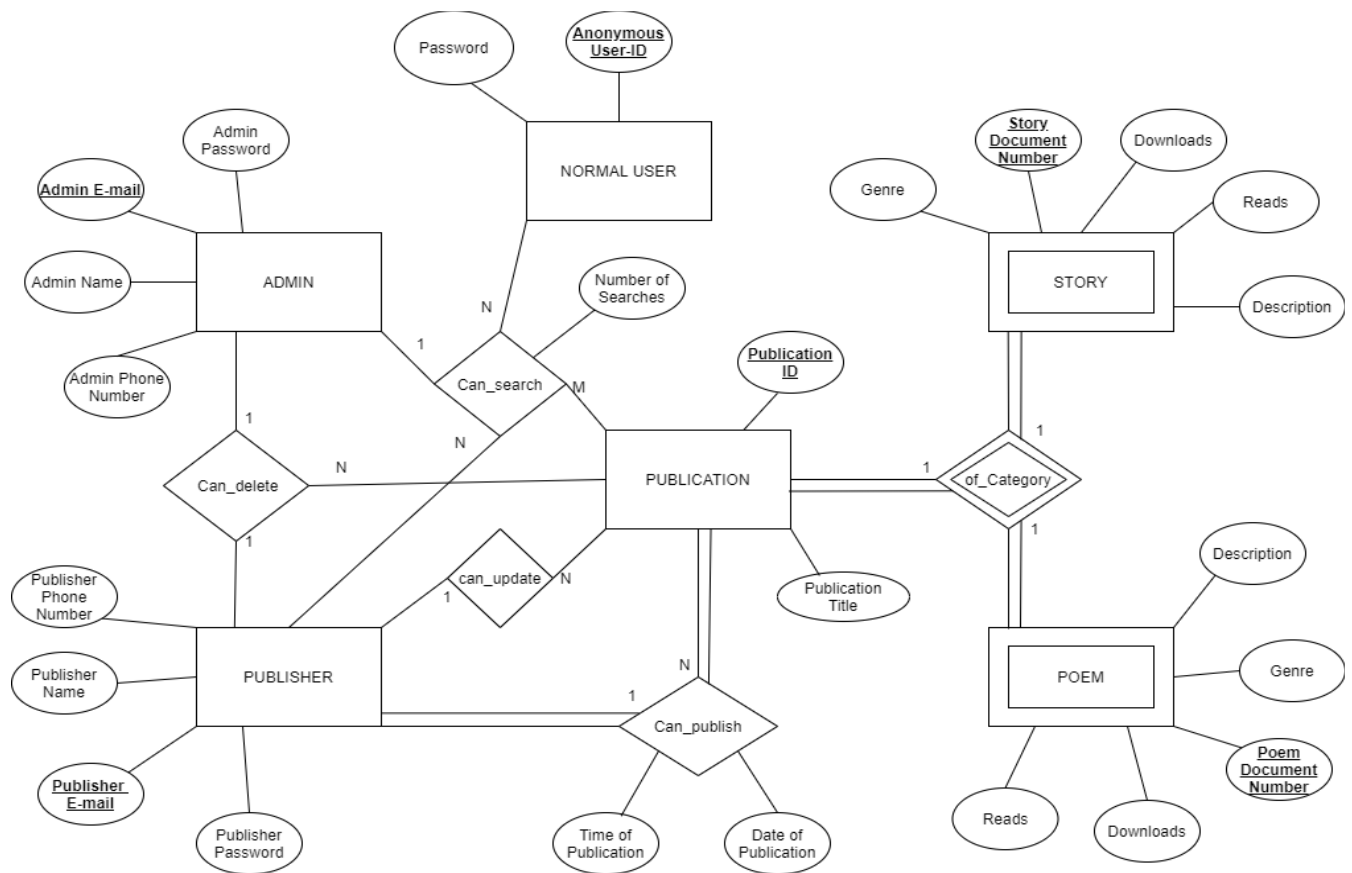
6. Update Database

The system shall allow the Publisher to change the record information including:

- The category
- The title
- The publisher name
- Brief description of the publication
- The published date

ER Diagram

The Entity Relationship diagram represents the plan for the database. The various entities are user, staff, admin, publication and publisher. Figure below shows the ER diagram. The various relationships in the given ER diagram are user searching for a publication, admin / publisher deleting a publication, publisher uploading a publication, user / admin / publisher searching for a publication.

Assumptions:

- Only one PUBLISHER per PUBLICATION.
- Only one ADMIN to handle the software.
- One PUBLISHER can *PUBLISH* multiple PUBLICATIONS.
- Only the PUBLISHER can *UPDATE* his PUBLICATIONS.
- Both the ADMIN and PUBLISHER can *DELETE* the PUBLICATIONS.