İhsan Doğramacı Bilkent University
Computer Science
Database Management Systems
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Project Proposal

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1- Introduction

This report is about our project proposal of an Art Sharing Database System which explains the basic functionalities and extent of our project. Within this report, the aim of the project, the basic functions, the limitations and restrictions, how the project will be designed and how the database system is going to be integrated into the project is discussed.

The report starts with Project Description part in which the scope and the properties of the Art Sharing Database System is explained. It continues with the questions of why we need a database and how we can use a database as part of this Art Sharing Database System project.

The report continues with the requirements. As part of the requirements, functional requirements, nonfunctional requirements, pseudo requirements are explained. Functional requirements are essential to establish the functionalities, the scope and the properties of the project. The functional requirements are clarified by analyzing the user ends, their permissions and capabilities in the system. In nonfunctional requirements, we provided authentication & security, performance, reliability and usability goals for the system. In pseudo requirements part, we listed the technologies that we will be using as part of the project. In the limitations part, we provided the boundaries and constraints of the system.

After defining project requirements, at the end we provided the E/R diagram that will be used as the basis of our database design. E/R diagram is tried to be designed so that the requirements and functionalities of our system are satisfied.

2- Why/How do we use a database?

Our project goal is to make a platform for artists who are willing to share their art with others. It is a system to view and share arts online. Our system needs to store a huge data of arts and users according to their user types. All of these data has to be in one system and needs to be secured. In order to accomplish this complicated system we need to use a database.

The database which we will use must include the information about creators, users, art collections and the information of its accordingly. The relation between them will also be included in the database system.

3- Project Description

ART+ is a web-based application for managing and observing art collections, designed to be used by creators or viewers. The system includes information about artists' information, information of creations and viewers information. With this data, the viewers are able to follow their favourite artists. Additionally, they can comment and fav on arts. The creators can create and share their art and view art created by others. Admins are responsible for adding art categories and managing the content when necessary. Moderators can flag creations and change their categories. Private information like user information that includes users' name and passwords will be stored in the system. Creators and arts will be public but their detailed information will only be accessed by creators. Java and Microsoft SQL Server Management Studio will be used to access and update the database.

4.0 Requirements

4.1 Functional Requirements

Art+ Database System supports 4 main user types which are creators, users, moderators and admins.

All of the users have accounts to use the system and reach the functionalities of its.

4.1.1 Creators
- Creator must has an account.
- Creator can publish their arts(image) to the system.
- Creator can create a collection of their arts.
- Creator can upload a bio to their profile page.

4.1.2 Standard Users
- User must has an account.
- User can make comments to published arts.
- User can fav on desired arts.
- User can view arts from collections or category.

4.1.3 Moderators

- Moderator must has an account.
- Moderator can flag arts.
- Moderator can change the category of the arts.

4.1.4 Admins

- Admin must has an account.
- Admin can manage the arts by their contents
- Admins can new categories
- Admins have the permission to ban or suspend users

4.2 Non-Functional Requirements

Authentication & Security

- Access permissions may only be changed by the system administrator.
- Each type of user can login but can access to different levels, therefore the permissions and limitations of the actions of the user should be specified.
- There should be password requirements for security such as length, etc.

User-Friendliness

- The system should be user friendly, everything in the system should be clear and understandable for the user to use them.
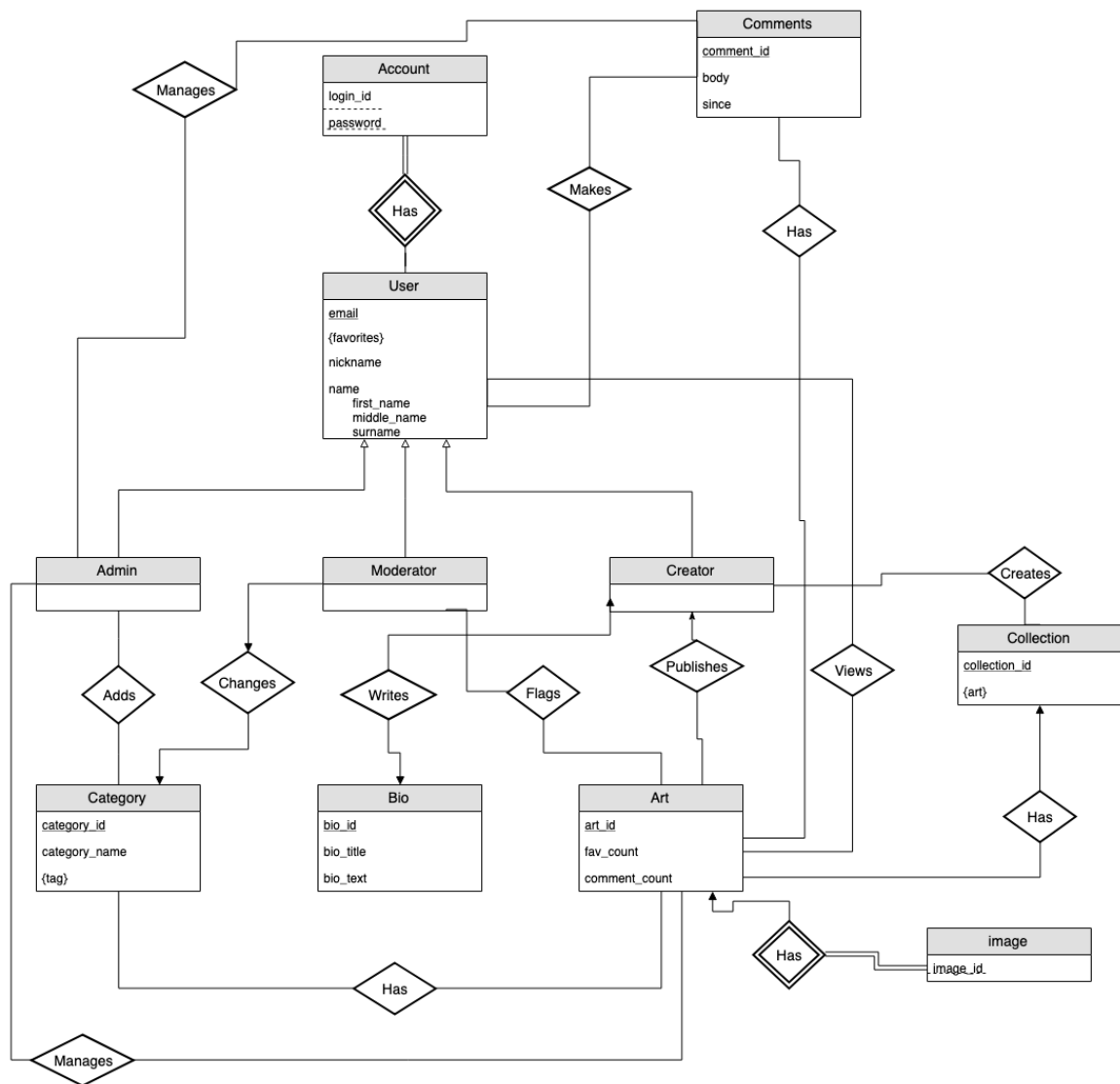- Basic, easily reachable contents will be provided for users.

Quick Response Time

- The system should be as fast as possible. This is related with loading, browser refresh time and etc.
- There is a big amount of data which grows by time and since there might be multiple user requests and interactions with the system, the system itself, should be designed in such a way that it prevents long waiting times and have faster responses.

5- Limitations

- Standard users are only allowed to view art, add them to their favorite list, and comment on them.
- Admins are eligible for managing the comments done by standard users, creates new categories, manages the content of the art and have right to ban or suspend users. Admins also have the same rights with standard users.
- Moderators are eligible for flagging arts and changing categories of them. They also have the same rights with standard users.
- Creators are the publishers of this project. They can write their own biographies, publish arts and create collection of these arts. They also have the same rights with standard users.
- When a creator deletes his/her account or gets banned their publications, comments, collections will be deleted automatically. This is also valid for standard users. Their favorite list, comments will be deleted.
- There will be word limit for comments. It will be stated after the design.
- Creators will require permission for uploading images which exceed the size limit, which will also be stated further.

6- E/R Diagram

7- Conclusion

This project is an art sharing platform which is almost equivalent to Pinterest, DeviantArt, and CGSociety. These websites also inspires the shaping and building of our project. People all around the world will access within three different types of accounts which have different permission levels. Our project provides users to share their art and view other users' art. Administrator's of the website will add new categories and manage the content. Lastly, Moderators will work as a bridge between users and administrators. They will check whether the content is placed on the right category and will be able to change the art's category if needed and moderators have the right to flag creations.

This proposal aims to explain briefly about the project while pointing some detailed parts for the building stage. It will enlighten the path while we are implementing and updating the project. It points out the main parts of the project which are requirements, limitations, and E/R diagram of the project in order to describe the project briefly.