

**A
PROJECT REPORT
ON
MANGAIND**



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December-2021

Submitted to:

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CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. HONEY SONI students of B. Tech Semester VII Computer Engineering Enrollment number 18012011110 have completed 2CEIT703: Capstone Project-III Lab with project titled **“MANGAIND”** in the year 2021.

Supervisor Name:

Prof. Bhavisha Suthar

Sign:

Date:

Head of CE Department:

Dr. Paresh M. Solanki

Sign:

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Sign:

ACKNOWLEDGEMENT

I am pleased to present this Project report entitled **MangaIND**. It is indeed a great pleasure and a moment of immense satisfaction for us to express our sense of profound gratitude and indebtedness towards our guide **Prof. Bhavisha Suthar** whose enthusiasm are the source of inspiration for us.

I would also like to give our sincere thanks to **Dr. Paresh Solanki**, Head of Department for necessary help and providing us with the required facilities for completion of this project report. We would like to thank the entire teaching and non-teaching staff who are directly or indirectly involved in the various data collection and software assistance to bring forward this project report.

I would like to express our deep sense of gratitude towards our parents for their sustained cooperation and wishes, which have been a prime source of inspiration to take this project work to its end without any hurdles.

Last but not the least, we would like to thank all our colleagues for their co-operation and useful suggestions and all those who have directly or indirectly helped us in completion of this project work.

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CHAPTER 1

INTRODUCTION

1.1 PROBLEM STATEMENT

The purpose of the MangaIND is to provide Manga to every Manga fans. Nowadays increasing usage of the internet goes on and on. Now everything is available on the internet. But howsoever, the manga are not available easily online.

Even many people don't have the idea or knowledge where to find them or how to read them without encountering malicious sits with non-stop pop ups or advertisements.

1.2 OBJECTIVES

MangaIND significant objective is to provide a wide range of genres options in manga like action, comedy, teenage, sci-fi et cetera. Also, the manga will be available in different languages too. So, the user can easily access his/her favorite manga and read it without any issues.

Also, it draws me to my next point. It is very tough for people to contribute time specially to go Amazon or Flipkart and order manga. It is time consuming as well as money exhausting. MangaIND will come in the light and make a user work efficient and convenient.

The user can bookmark their favorite manga's. Also, he/she can read it later from when they left off.

1.3 MOTIVATION

Motivation for me comes when I am an existing example of the problem I face on daily basis. What if? There existed an application which made things easy for users like me where the user just has to search for their favorite manga and the application find it in few secs in all the available languages.

There aren't any websites let alone applications providing this type of services. The websites which exist don't provide this service where you can search and if there is some other book with same name or similarity, they show it on top. Also, don't forget the malicious websites and advertisements that entails with this method.

So, this is the second reason from where the motivation to make an app with wide spread approach comes into the picture.

1.4 SCOPE

The purpose of the MangaIND App Service is to help both users and creator. The user is saved by efficient search methods and easy readability options other wasting their precious time. The creator get help by a greater number of customers than they usually get while publishing if offline with a fee.

The potential of this application is broad in today time. In future, it can do many more things rather than these existing one which we will talk later in the SRS.

So, this way the user can find their desired manga's. Besides, A user can publish its own manga if he/she had made one.

1.5 LITERATURE SURVEY

In current system, in order to find a manga. One has to search online and find the manga. If the manga is found there is a chance that it will be expensive. Apart from it, if you ignore online and try to find the manga offline then good luck with it because you will waste your resources like time and money while roaming in the city to find it.

Our system can provide easy search and good reading experience for users.

Our system provides use the features like bookmarks, download, and continuation from where they left off on that manga.

This way the user can find manga and can also publish there on manga.

Currently there are few websites who let you read manga, but most of them are paid. We are providing free manga at one place with out any malicious bugs or viruses.

1.6 TOOLS & TECHNOLOGY

For Android Application:

Table 1 Tool and Technology (Android)

Sr.no	Tools and technology	version	Description
1	Android studio	2020.3.1	Android Studio is the official integrated development environment for Google's Android operating system, built on JetBrains' IntelliJ IDEA software.
2.	Firebase	25.0.0	The Firebase Realtime Database is a cloud-hosted database. Data is stored as JSON and synchronized in real-time to every connected client. When you build cross-platform apps with our iOS, Android, and JavaScript SDKs
3.	Java	Version 11	Java is at the heart of our digital lifestyle. It's the platform for launching careers, exploring human-to-digital interfaces, the world's best applications, and unlocking innovation everywhere from garages to global organizations.

CHAPTER 2

FEASIBILITY STUDY (SYSTEM ANALYSIS)

2.1 STUDY OF CURRENT SYSTEM

Currently there are few websites who let you read manga, but most of them are paid. In current system, in order to find a manga. One has to search online and find the manga. If the manga is found there is a chance that it will be expensive. Apart from it, if you ignore online and try to find the manga offline then good luck with it because you will waste your resources like time and money while roaming in the city to find it.

2.2 PROBLEMS & WEAKNESS OF CURRENT SYSTEM

- It is less user-friendly
- Most websites are paid.
- Even though there are websites it is difficult to find the manga.
- Time consuming process.
- Device is vulnerable.

2.3 REQUIREMENTS OF NEW SYSTEM

To build a system which can grow and help user find all types of manga at one place. We require new system which need to characteristics shown below:

- User-friendly
- Online Mobile Application
- Safe, Secure & Fast
- Availability

2.4 FINANCIAL FEASIBILITY

MangaIND is an android application which is intended to provide connection between the app and user. As per the revenue generation, all the services provided by the application are free of cost.

Also, to deploy and manage this application, certain hosting platform and development may be paid and this revenue can be generated back by the Ads, and other 3rd party services.

Hence, MangaIND is Financially Feasible.

2.5 TECHNICAL FEASIBILITY

The technical feasibility assessment is focused on gaining an understanding of the present technical resources of the organization and their applicability to the expected needs of the proposed system. It is an evaluation of the hardware and software and how it meets the needs of the proposed. The Technical Feasibility test involves questions like:

Is the current Computer's configuration adequate for Usage?

Is the selected technique sufficient for future enhancements?

Is there sufficient support for the project?

Is the current method acceptable to the user?

Are the level of security and any other access control constraints high or not?

Is the skill set available with proper manpower for development and maintenance?

As this application is an android application, it needs certain tools while developing and maintain the application.

For Android Application:

- Android Studio
- Firebase

For UML Diagram

- Star UML

For Data Flow Diagram

- Microsoft Visio 2013

For UI Design

- Adobe XD
- Figma

At initial phase, app may run on low specifications hosting infrastructure but as requirement increase, this app can be scaled to the higher application. The team developing the application will have some prior experience and can adapt new obstacle coming in the future.

Conclude that our app is technically feasible.

2.6 RESOURCE FEASIBILITY

This resource required for the project:

- Programming Device (Laptop)
- Running Device (Android Phone)
- Programming Tools (Android studio, VS Code)
- Development Team

So, it is clear that this app has required the resources feasibility

2.7 RISK FEASIBILITY

2.7.1 Risk associated with size

Estimate size of the final project:

This app will contain the significant line of code as it an android application so the estimate size of the final application for android is between 50-100 MB.

Size of database created:

Database used will be Firebase. At initial the database in the application will be separate but after it will be integrated with the rest API. So, the database at the deployment stage will be same for the application. Database will be designed in such a way that it minimizes the redundancy.

2.7.2 Development environment risk

Are tools to analysis the software

- Creately.com
- Star UML

Flutter will be used for developing the android applications. Hence it freely usable.

Java will also be used in the development of the application as this are the trending technologies in the era.

2.7.3 Technology risk

All the technology is already available and these applications are using them to create something new and each technology has good community support. System requirements demands for the creation of the new algorithms so that can work efficient

CHAPTER 3

SYSTEM REQUIREMENT STUDY

3.1 FUNCIONAL REQUIREMENTS

Admin:

Manage user accounts: This set of functionality enables admin to manage all the users throughout to the application and can manage the activities of the user.

Manage Manga: This set of functionality enables admin to manage the manga such add manga, delete manga and view manga uploaded by the creator before getting a publish publicly.

User:

User login: This set of functionality is used by user to login into the system. A user must login with his/her Google or Facebook account. He/she can login through phone number verification. If they are invalid, the user is not allowed to enter into the system.

User register: This set of functionalities is used by new user which will register into the system by providing essential details with Google or Facebook login in order to use the services in the system.

3.2 NON-FUNCTIONAL REQUIREMENTS

Reliability

The system has to be very reliable due to the importance of data and the damages incorrect or incomplete data can do. As it would be accessed several times in a day by different users across the department, it should be entirely robust and reliable. The system should be reliable in its operations and for securing the sensitive details.

Usability

The software can run on any android device which has 5.0 Lollipop or above.

- The software should be easy to use and should require minimum manual operation.
- The software should have a user-familiar interface so that the system would not pose an additional workload to the users.

Note. Interface design would follow generally accepted model conventions for the placement of dropdown menus and toolbars.

- The software should allow bidirectional synchronous communication between the user and the data source in real-time.
 - The software should provide security of operation and confidentiality of information (restricting access to non-privileged users), by FAT32 compression of data and Rijndael (AES) encryption algorithms.
 - The software should allow location information and network data/statistics.
 - The software should be able to avoid any malicious attack, while transmitting real-time data.
 - The application should be able to show data on the map accurately as information provided.
- (((The major features of app database system as shown in below entity–relationship model (ER model))))

Security

System should not be vulnerable to any unauthorized access or attack user data should be protected and should not be leaked to outside world. Application should not use any unauthorized services from the user devices. Suppose there is extensive damage to a vast portion of the database due to catastrophic failure, such as a disk crash. In that case, the recovery method restores a past copy of the database that was backed up to archival storage (typically tape) and reconstructs a more current state by reapplying or redoing the operations of committed transactions from the backed-up log up to the time of failure

Maintainability

The system should be designed to be easily maintainable and get the least complaints from users, along with minimum time.

3.3 SOFTWARE & HARDWARE REQUIREMENTS

Table 2 Software and Hardware Requirements

	Hardware	Software
Developer	8GB RAM 256 GB Storage Intel i5 5 th Generation For Android: Only smart phone which has an OS Android or iOS.	For Application: Backend: Firebase Language: Java (Android Studio)
User	For Applications: One android smartphone and iOS.	For Applications: Above 2GB RAM, Above Lollipop version, Good and Stable internet connectivity.

CHAPTER 4

SYSTEM DESIGN

4.1 USE CASE DIAGRAM

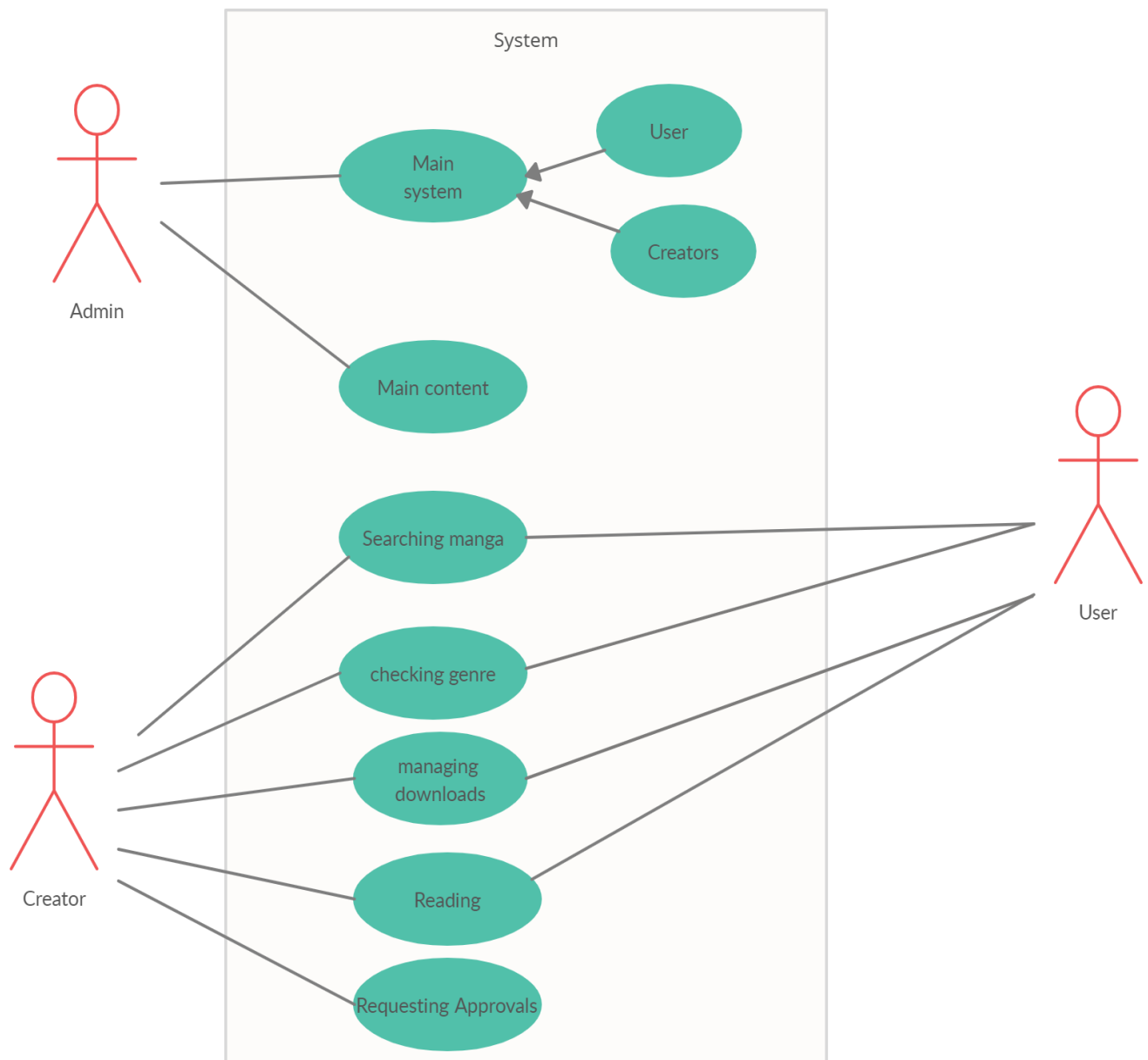


Figure 1 Use Case Diagram

4.2 CLASS DIAGRAM

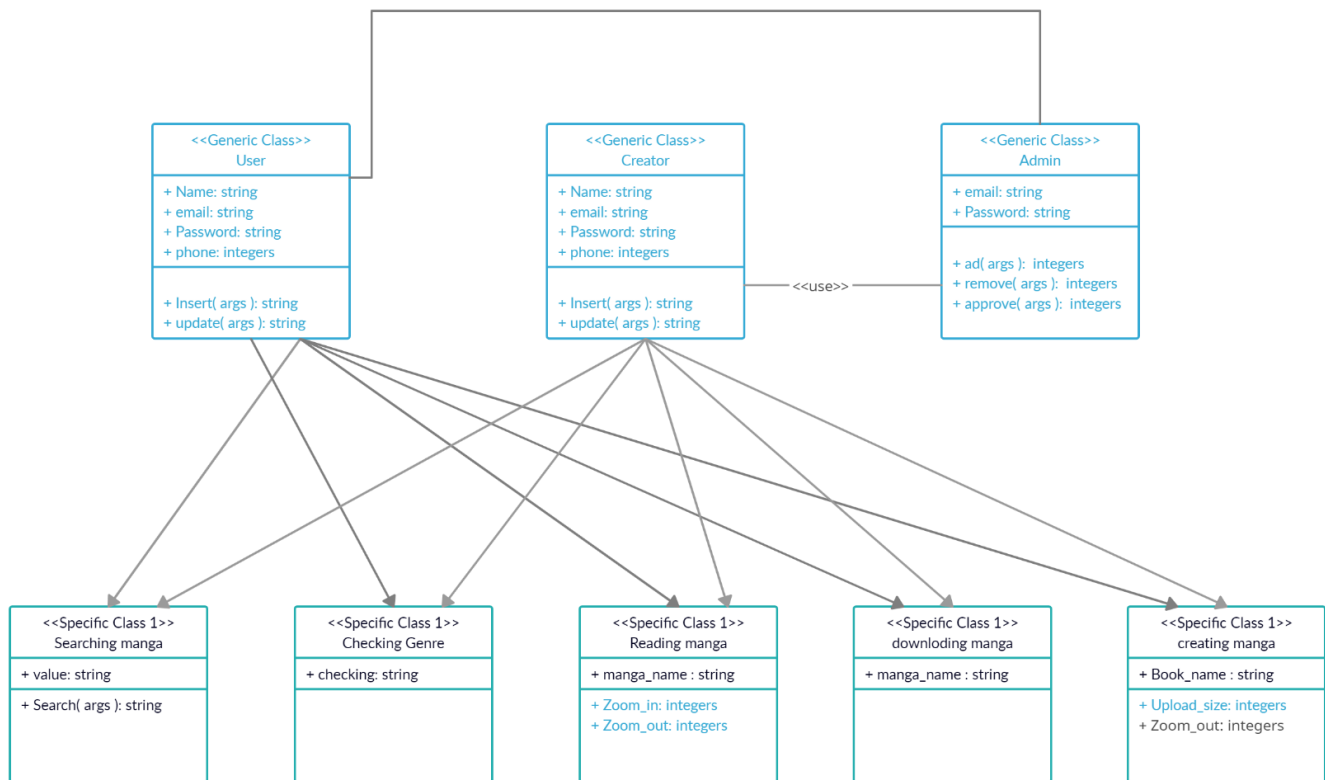


Figure 2 Class Diagram

4.3 SEQUENCE DIAGRAM

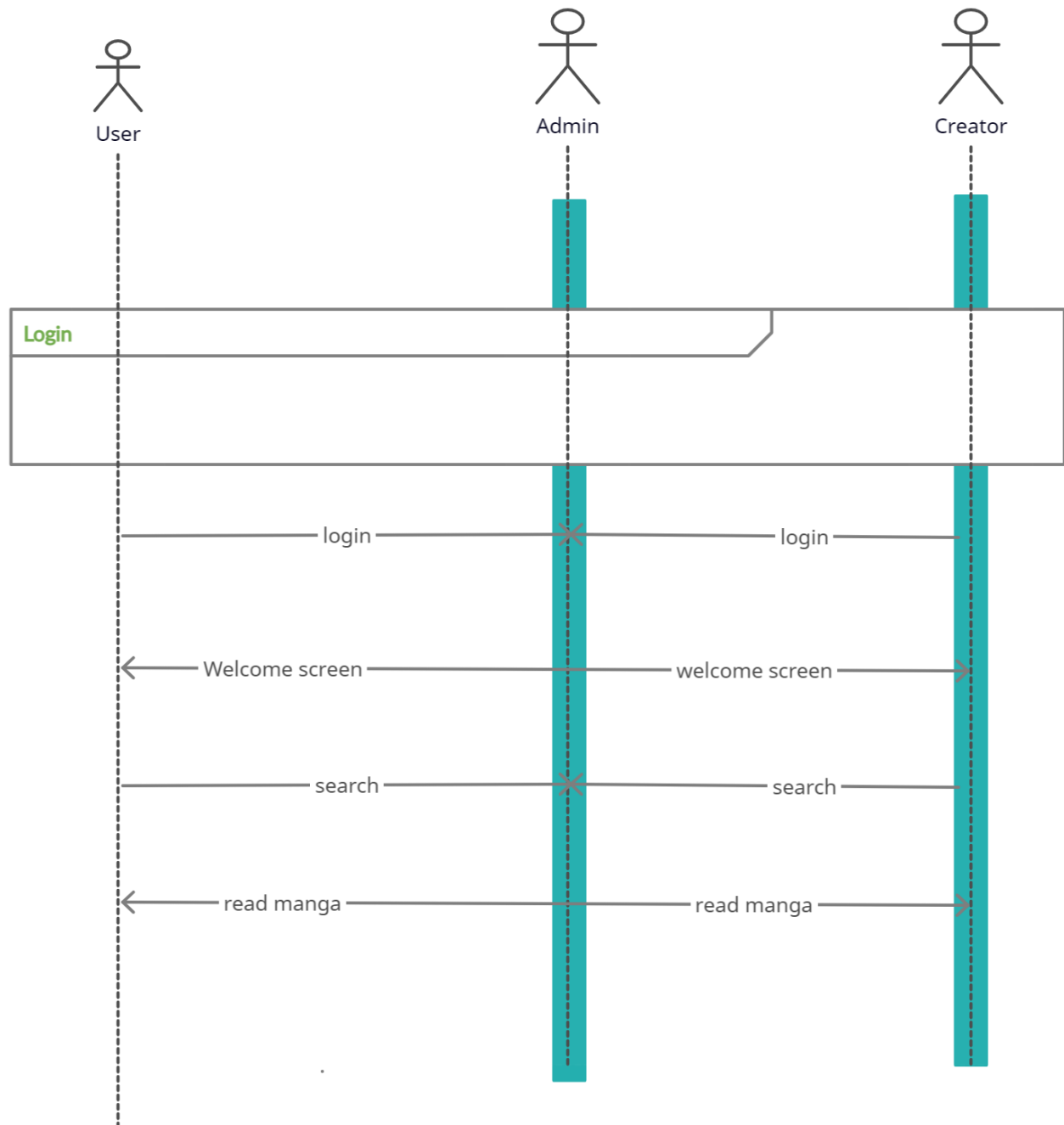


Figure 3 Sequence Diagram

4.4 ACTIVITY DIAGRAM

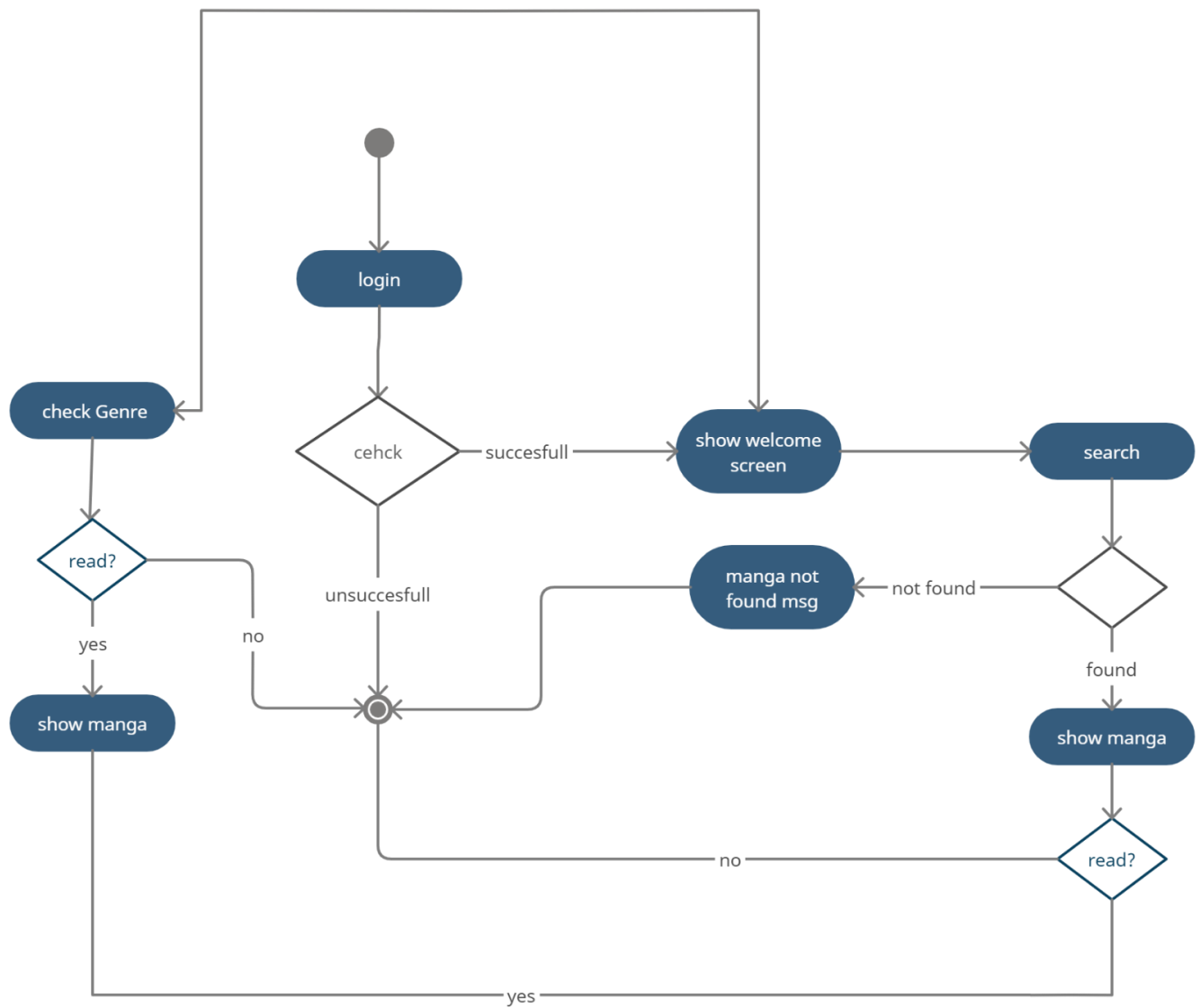


Figure 4 Activity diagram

4.5 DATA FLOW DIAGRAM

Level-0:



Figure 5 DFD level-0

Level-1:



Figure 6 DFD level-1

Level-2:

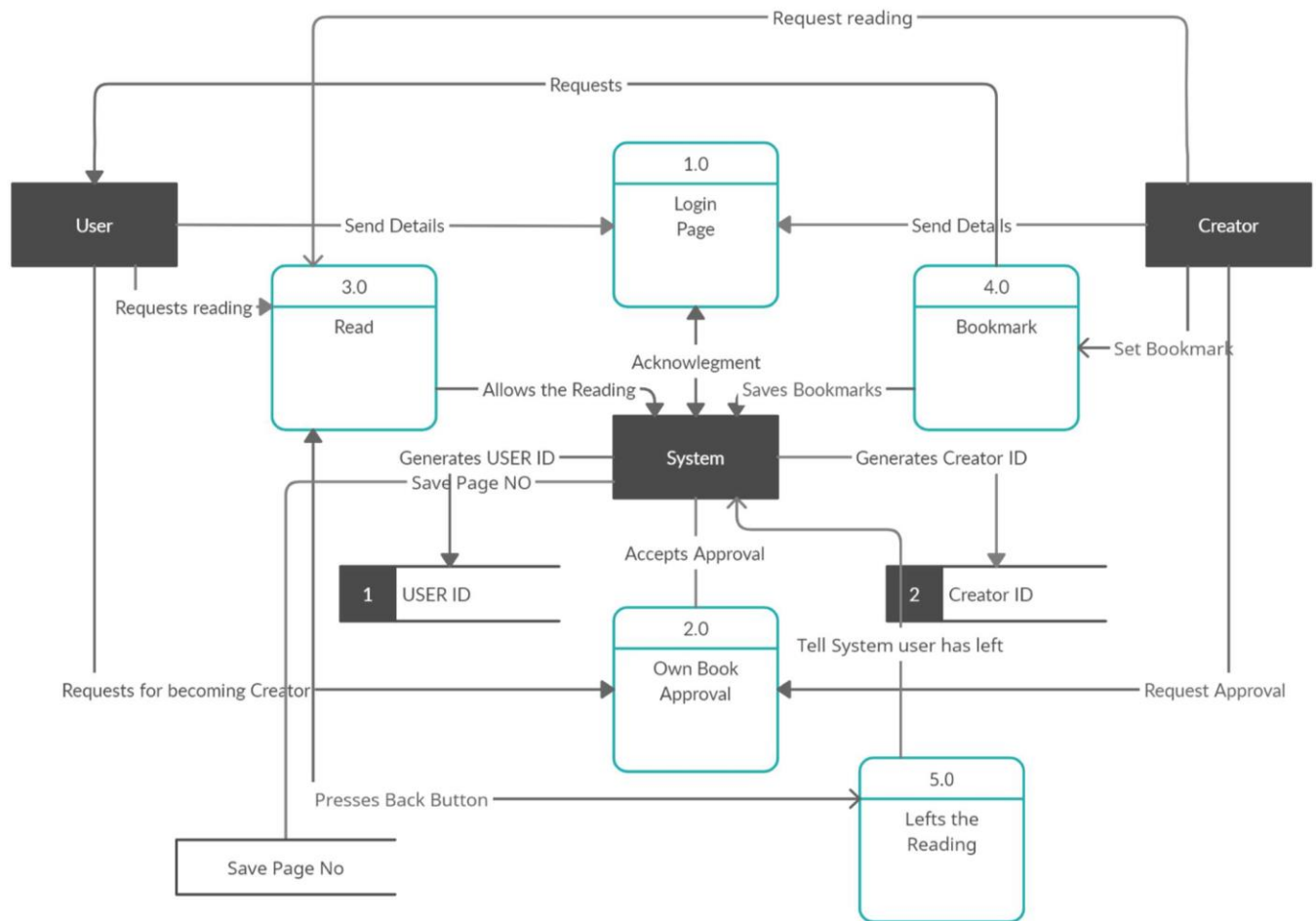


Figure 7 DFD level-2

CHAPTER 5

DATABASE DICTIONARY

5.1 Database Dictionary

Table 3 User ID

Sr. No	Field name	Data Type	Field Size	Description	Example
1	User ID	String	128 char	Unique ID of user	eH12asdBHJ213

Table 4 Creator ID

Sr. No	Field name	Data Type	Field Size	Description	Example
1	User ID	String	128 char	Unique ID of user	eH12asdBHJ213

Table 5 Creator Approval Table

Sr. No	Field name	Data Type	Field Size	Description	Example
1	Manga Images	Blob	128 char	Approval of Manga images	images

CHAPTER-6

IMPLEMENTATION PLANNING AND DETAILS

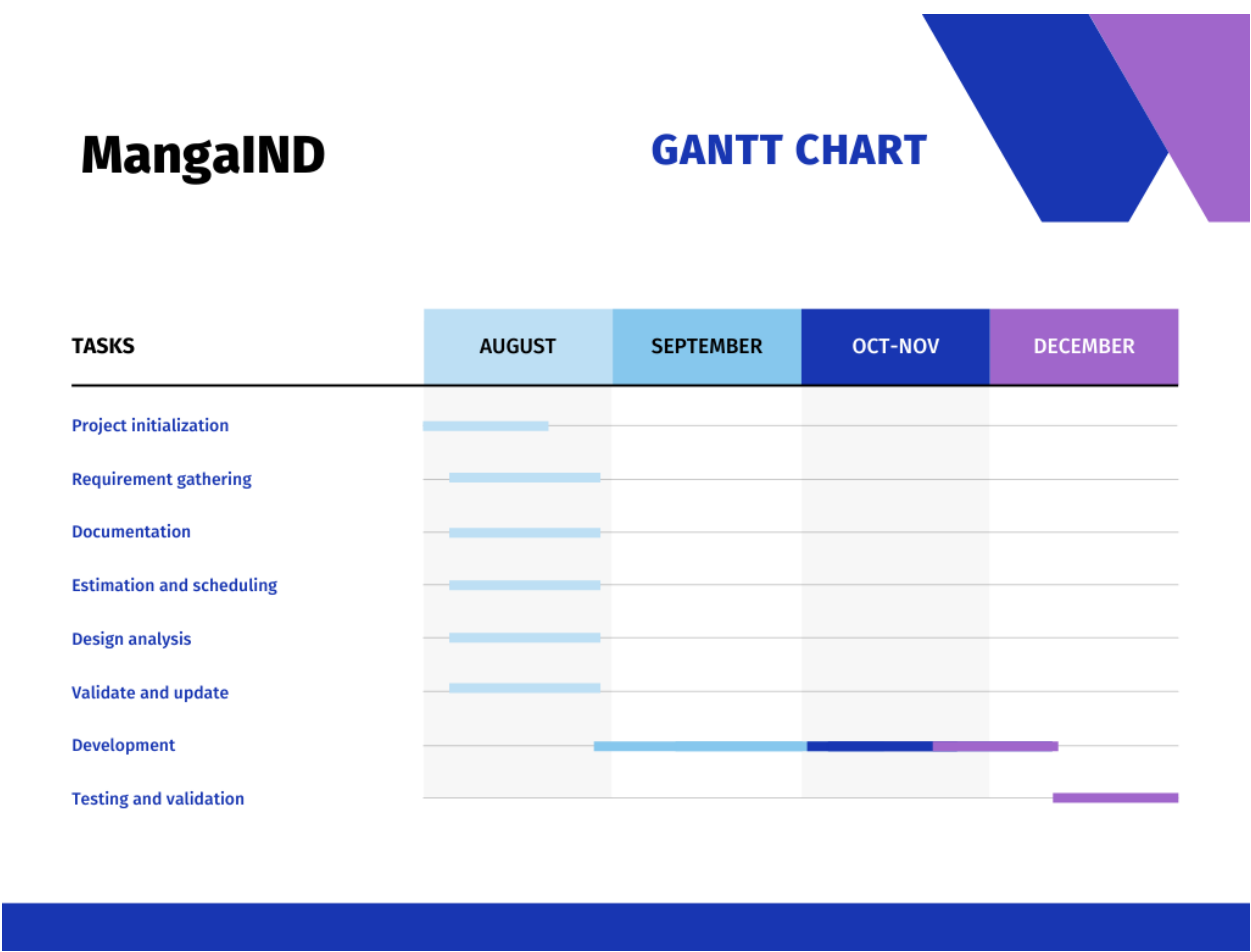


Figure 9 Project Planning and Implementation

Table 6 Project Planning and Implementation Details

Stages	Timeline	Description
Project initialization	9 th Aug-18 th Aug	Problem statement, goals and objectives
Requirement gathering	18 th Aug -23 th Aug	Gathering technical and non-technical requirements.
Documentation	18 th Aug -23 th Aug	Documenting and adding details
Estimation and scheduling	18 th Aug -23 th Aug	Estimating the time and work flow
Design analysis	18 th Aug -23 th Aug	Deciding models UML diagrams and data dictionary
Validate and update	18 th Aug -23 th Aug	Verify the work done till now and getting the feedback and update accordingly
Development	23 th Aug-10 th Dec	Developing the system according the document
Testing and validation	10 th Dec-17 th Dec	Testing the developed system and validating and making changes if required

CHAPTER-7

TESTING

Login:

Sr. No.	Test Case	Input	Expected Output	Actual Output	Test Result
1.	Test if user is able to login successfully	Correct User Id, correct password	User must be successfully login to the Homepage		
2.	Test Case if user is not able to login.	Incorrect User Id, Incorrect password	The User Id or Password is incorrect, or User is not register, forgotten Password?		

Register:

Sr. No.	Test Case	Input	Expected Output	Actual Output	Test Result
1.	Test if user is able to register username and email successfully	Name, Unique Username, Unique email, Unique Password, Phone Number	User must be getting OTP on their phone number		
2.	Test if user is not able to register with username and email	Same username or Same email	The username or email is incorrect, or there exist someone with same email or Username		
3.	Test if user register with OTP.	Correct OTP	User must be getting OTP on email address		
4.	Test is user enter correct password or not.	Incorrect Confirm Password and minimum password	Enter input not < 6 on the respective field.		

5.	Test is user enter name and full name	Correct name, Correct last name	Name and full name are not valid		
6.	Test is user selected gender or not and birthday	Selected gender, Selected birthday	Please select gender and birthday date		
7.	Test is user entered school/collage and course name	Correct school/college name, Correct course name	Please enter correct school/collage and course name		

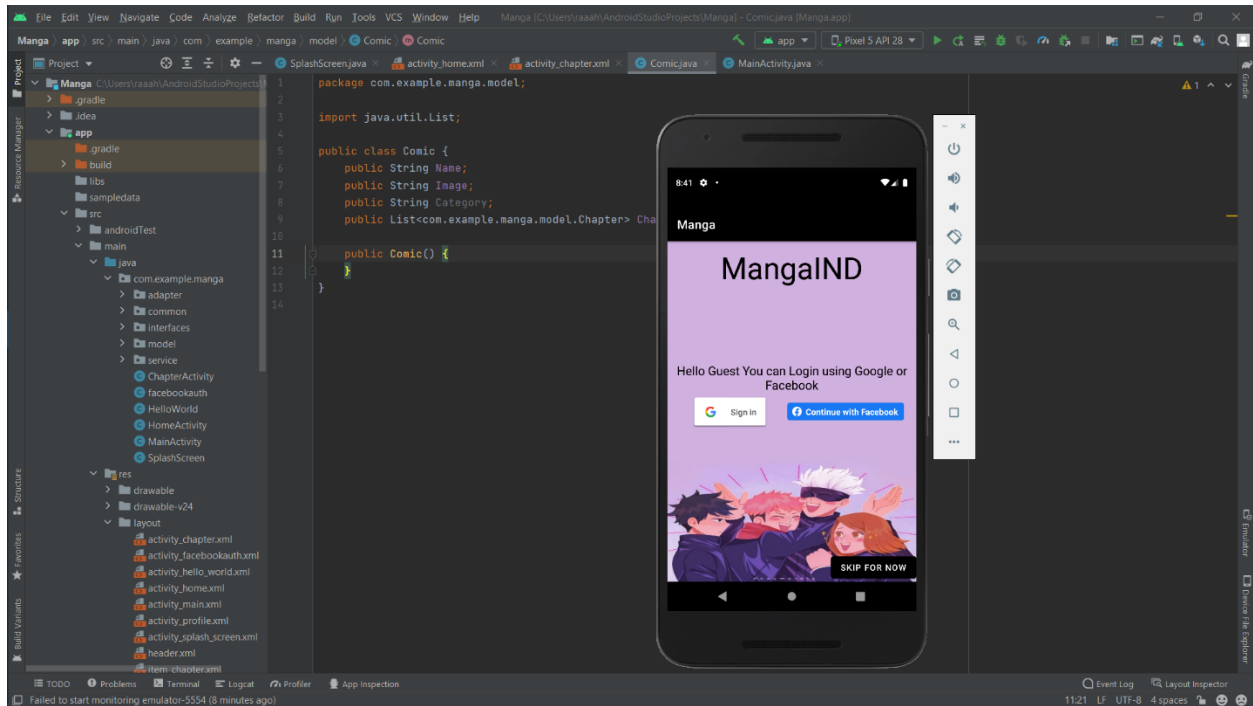
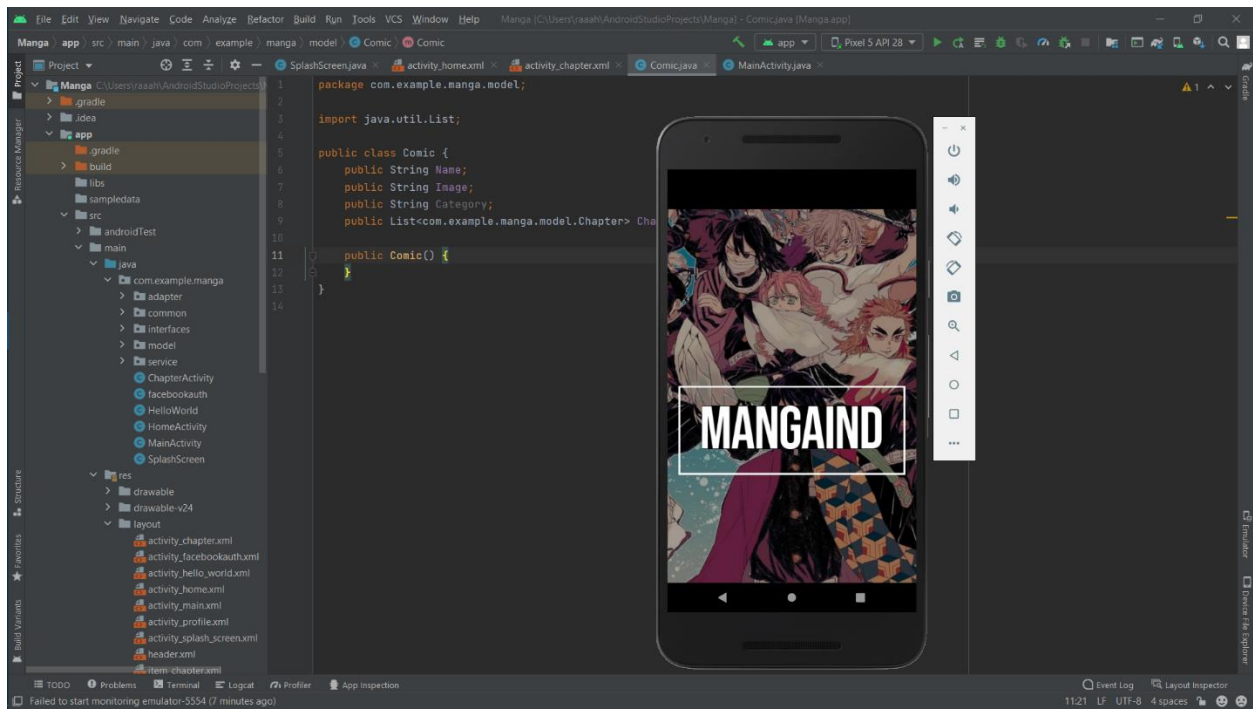
Menu:

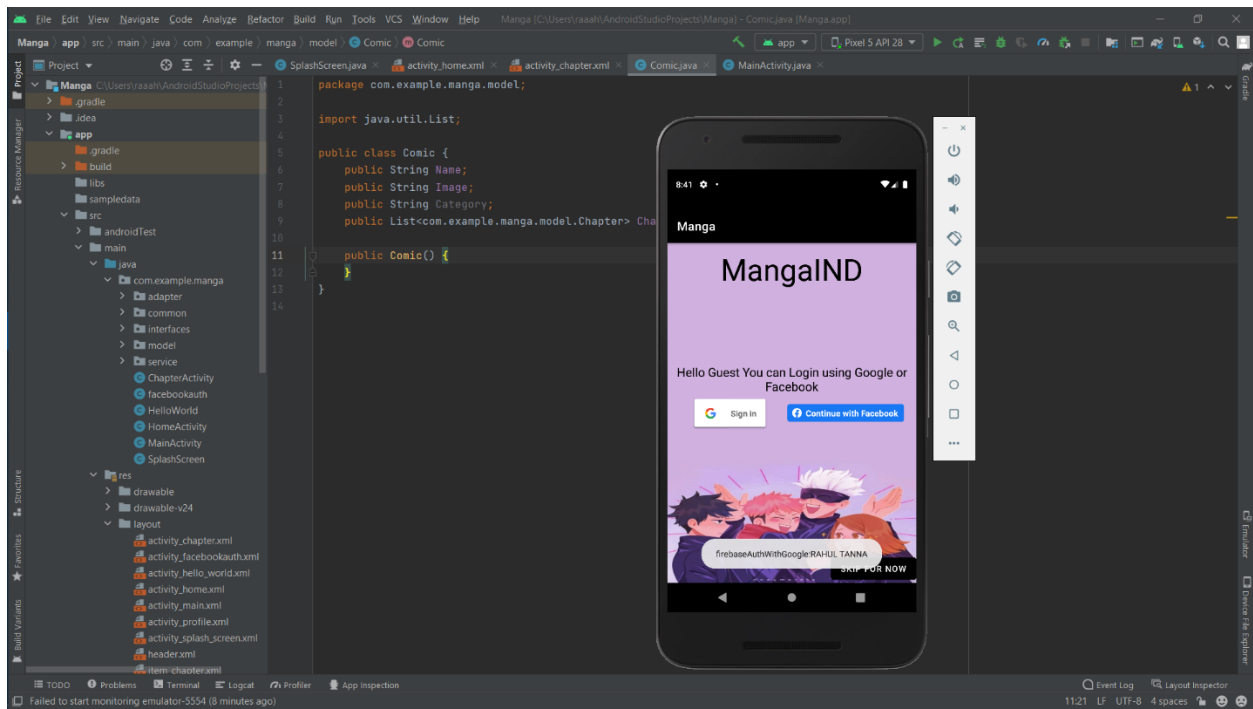
Sr. No.	Test Case	Input	Expected Output	Actual Output	Test Result
1.	Library	N/A	Displays the manga you have downloaded.		
2.	History	N/A	Displays the manga you read.		
3.	Browse	N/A	Displays the result when you search for the manga.		
4.	More	N/A	Take you other options like Settings, Download queue etc.		

CHAPTER-8

UI IMPLEMENTATION







CHAPTER-9

CONCLUSION

The designed application will be counted as application which will be used by the consumers in their daily life.

The whole system is designed into the multiple modules like login portal, registration portal, creator portals et cetera. Each one has their specific roles and functionalities. For implementing the system various feature Android studio have been used

There are various features and module which will make it effective and flexible to use.

Below is some point which shows the future points to be considered:

1. Each module of the system will provide a different user experience and the UI will be updated in future so it provides the best experiences at the regular interval of time.
2. As the system consist the creator functionality so there will be best interface for the user to showcase their art using the application

It was a wonderful learning experience for me while working on this project. This project took us through the various phases of projects development and gave us insights into the world of real software engineering. The joy of working and the thrill involved while tackling the various problems and challenges gave us a feel of the developer's industry.

It was due to this project; we came to know how professional software is designed and now we can make software/application with this project experience and eventually make this software/application more robust.

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ABOUT COLLEGE

GUNI-UVPCE is a hi-tech education institute in the campus GANPAT VIDYANAGAR near village Kherva, 45 km away from Gandhinagar and 65 km away from Ahmedabad. The dream of establishing a campus for professional courses came true by the generous support of Shree Ganpatbhai Ishwarlal Patel, an eminent settled in U.S.A., after whom the campus has been named as Ganpat Vidyanagar. The campus is being developed by Mehsana District Education Foundation, a highly progressive trust, dedicated to the cause of imparting quality technical and professional education in North Gujarat region. A visionary educationalist and eminent industrialist Shree Anilbhai T. Patel with his diligent group of trustees is leading this movement. The campus sprawling over 300 acres having natural surroundings full of greenery, several gardens, a pond, playground and plantation of over 40,000 trees provide a refreshing and enliven academic environment on the campus. To conserve the energy and ensure light over the campus during the night with higher reliability, the entire campus is illuminated by solar street lights, a unique feature.

- **Mission**

"It shall be the constant endeavour of the Mehsana District Education Foundation to meet the educational needs of the youth in the area of professional studies and provide state-of-the-art learning opportunities along with inculcation of values of professional commitment and uprightness."

- **Vision**

"Seek, Search and offer programs those lead to symbiotic emergence of 'academic excellence' and 'industrial relevance' in education and research in the field Engineering and Technology."

- **Aim**

Our spirituous efforts are directed towards leading our student community to such an acme of technical excellence that can satisfy the requisition of the industry, the nation and the globe at large. The generation of an entirely different community of students aiming at attaining technical expertise and utilizing the technical know-how in the service of mankind is at the root of our efforts