A

Project Report

On

Image Gallery

Submitted by

Rishabdev Panchal - 2205103140012

Priyanshi Patel - 2205103120030

Seeram Harshsa Vardhini - 2205103140020

as

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Under the Guidance of

Internal Guide Prof. Saumil Trivedi

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Acknowledgement

The success and final outcome of this project required a lot of guidance and assistance from many people, and we are extremely privileged to have got this all along the completion of our project. All that we have done is only due to such supervision and assistance and we would not forget to thank them.

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Rishabdev Panchal 2205103140012

Priyanshi Patel 2205103120030

Seeram Harsha Vardhini 2205103140020

PARUL INSTITUTE OF COMPUTER APPLICATION

CERTIFICATE

This is to certify that ***Rishabdev Panchal, Priyanshi Patel and Seeram Harsha Vardhini*** the students of Parul Institute of Computer Application, has satisfactorily completed the project entitled ***Image Gallery*** as a part of course curriculum in IMCA semester- 4 for the academic year 2023-2024 under guidance of ***Prof. Saumil Trivedi***

Enrolment Number: 2205103140012

Enrolment Number: 2205103120030

Enrolment Number: 2205103140020

Quality of work	**Grade** **A / A+ /B /B+**	**Sign of Internal guide**
Poor / Average / Good /Excellent		

Date of submission:

HOD,

Dr. Hina Chokshi

Principal,

Dr. Priya Swaminarayan's

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ABSTRACT

- Developed a Java-based application for managing digital image collections efficiently.
- Prioritize intuitive interface design for easy navigation and image management.
- Enable secure user registration and personalized access to image galleries.
- Support image uploading, categorization, tagging, and operations like viewing and deletion.
- Employ MySQL database management for robust data storage and retrieval.
- Implement secure authentication mechanisms to protect user accounts and data integrity.
- Employ password hashing and encryption techniques to secure user credentials.
- Design architecture to accommodate potential scalability requirements for managing large image collections efficiently.
- Optimize performance for responsive and reliable image processing and retrieval.
- Explore integration with cloud storage services for backup and synchronization.
- Investigate advanced image recognition and categorization algorithms for automated tagging.
- Provide comprehensive documentation covering installation, usage, and troubleshooting.
- Offer ongoing support and updates to address user feedback and improve the application.

Chapter 1

Introduction to Project System

"The Image Gallery project is a Java-based application tailored to simplify the management of digital image collections. With a focus on user-friendly functionality and robust security, the application empowers users to effortlessly upload, categorize, and interact with their images. Leveraging Java's versatility and MySQL's reliability, it offers secure user registration, intuitive interface design, and seamless image handling capabilities. By revolutionizing the way users organize and access their images, the project aims to redefine the user experience in digital image management, serving as the ultimate tool for individuals to preserve memories, showcase portfolios, and curate visual inspirations."

Chapter 2

System Requirement Specification

2.1 Introduction to SRS

2.1.1 What is SRS?

A software requirements specification (SRS) is a description of a software system to be developed. It lays out functional and nonfunctional requirements and may include a set of use cases that describe user interactions that the software must provide.

2.1.2 Need of SRS

In order to fully understand one's project, it is very important that they come up with a SRS listing out their requirements, how are they going to meet it and how will they complete the project. It helps the team to save upon their time as they are able to comprehend how are going to go about the project. Doing this also enables the team to find out about the limitations and risks early on.

2.2 Hardware Requirement

Hardware Component	**Specification**
Processor	Pentium 2 266 MHz or above
RAM	128 MB or above
Hard Disk	124 MB for JRE, 2 MB for JAVA Update
Device	Mouse and Keyboard

2.3 Software Requirement

Name of component	**Specification**
Operating System	WindowsXP or above/ OS X 10.8.3 and above
Software Development Kit	IntelliJ IDEA or any code editor
Programming language	JAVA
Database	MySQL

2.4 System Users & Modules

2.4.1 Customer/User
2.4.2 System Administrator

2.5 Description of Users & Modules

2.5.1 Customer/User

The primary user of a Image Gallery is the one who is gonna interacts with the platform to explore usage of the system.

2.5.2 System Administrator

As a system administrator for a food ordering website, main responsibilities include managing servers, databases, and security measures, ensuring smooth operation, scalability, and data protection.

2.6 System Features

2.6.1 User Authentication and Registration
2.6.2 Stores the Image
2.6.3 View the Image
2.6.4 Delete the Image

2.7 Description of Features

2.7.1 User Authentication and Registration

Allows users to create accounts, log in, and manage their profiles.

2.7.2 Stores the Image

Enables the user to upload their image with details and descriptions.

2.7.3 View the Image

Allows users to view uploaded content.

2.7.4 Delete the Image

Allows users to view uploaded content.

2.8 Timeline Chart

Development phase	*75 Days*						Duration N (days)
	0to10 days	11to20 days	21to30 days	31to40 days	41to50 days	51to75 days	
Requirement Gathering							07
Analysis							09
Design							10
Development Phase 1							13
Development Phase 2							13
Development Phase 3							13
Documentation							10
Total time (Days)							**75**

2.8 Timeline chart of Image Gallery

Chapter 3

System Flow Diagram

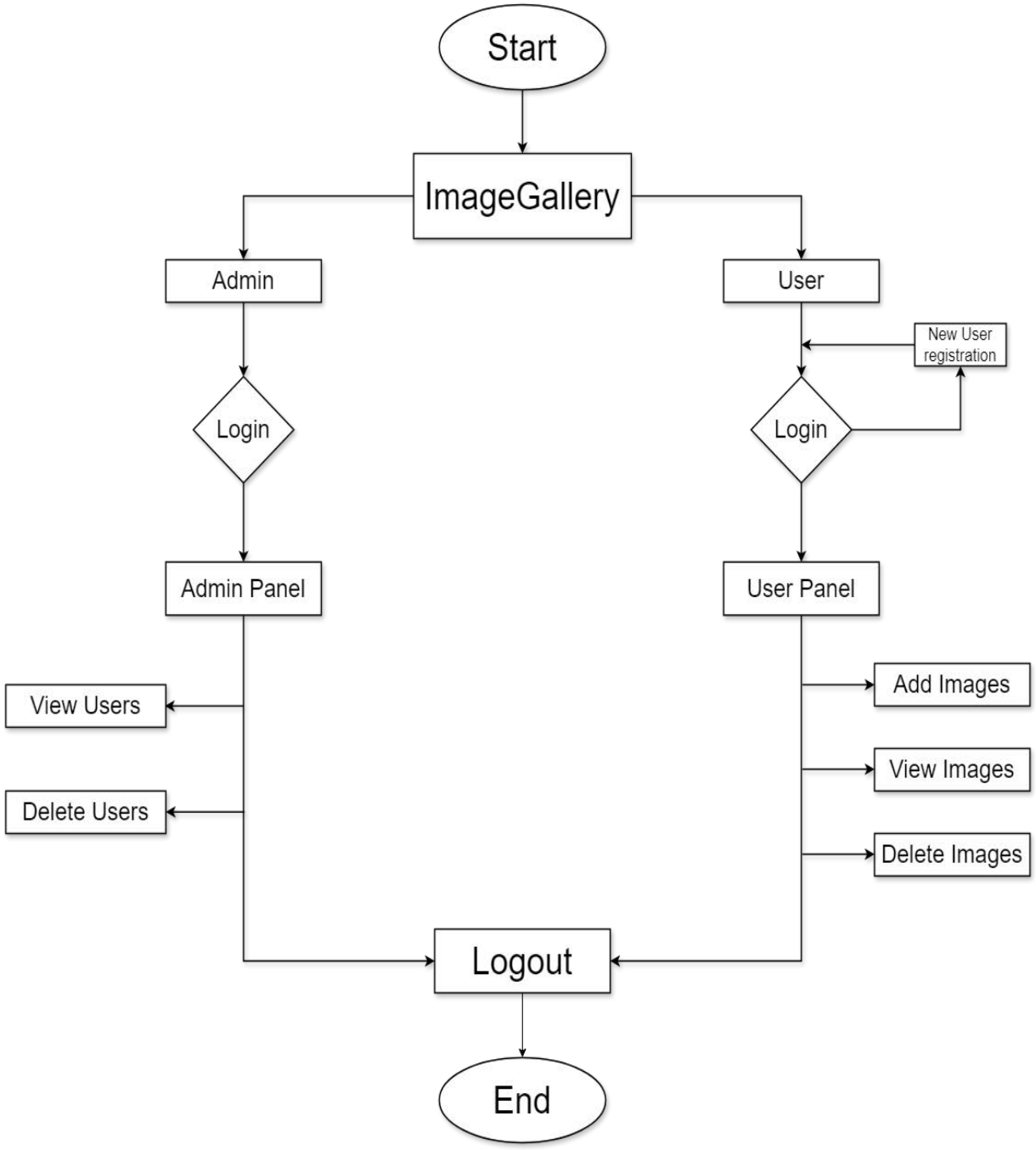

Figure 3 System Flow Diagram of Image Gallery

Chapter 4

Data Flow Diagram

Data Flow Diagram of Image Gallery (level-0)

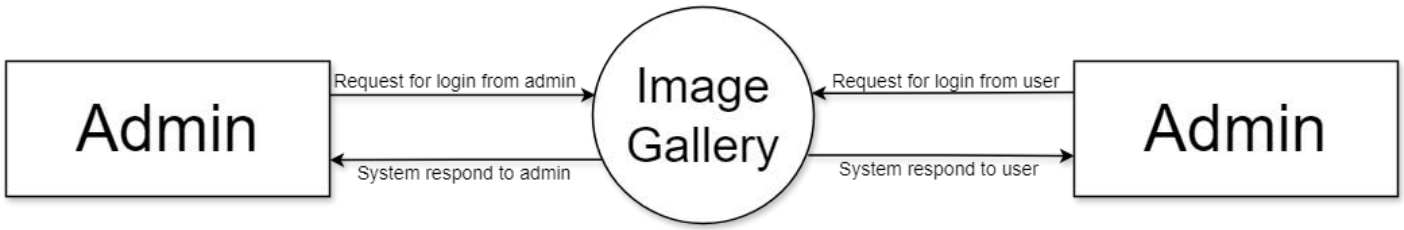

Figure 4.1 Data Flow Diagram of Image Gallery (level 0)

Data Flow Diagram of Image Gallery (level-1)

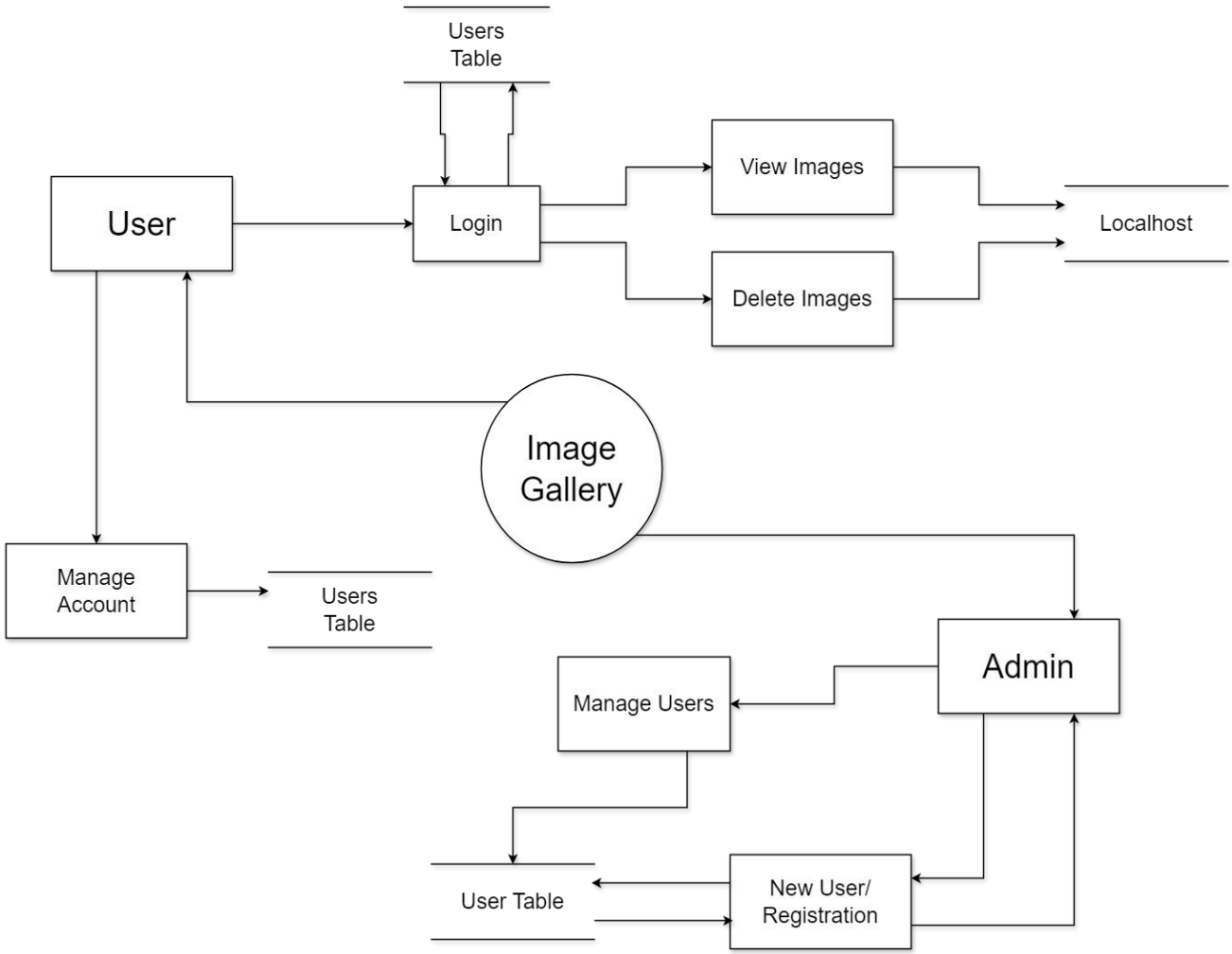

Figure 4.2 Data Flow Diagram of Image Gallery (level 1)

Data Flow Diagram of Image Gallery (level-2)

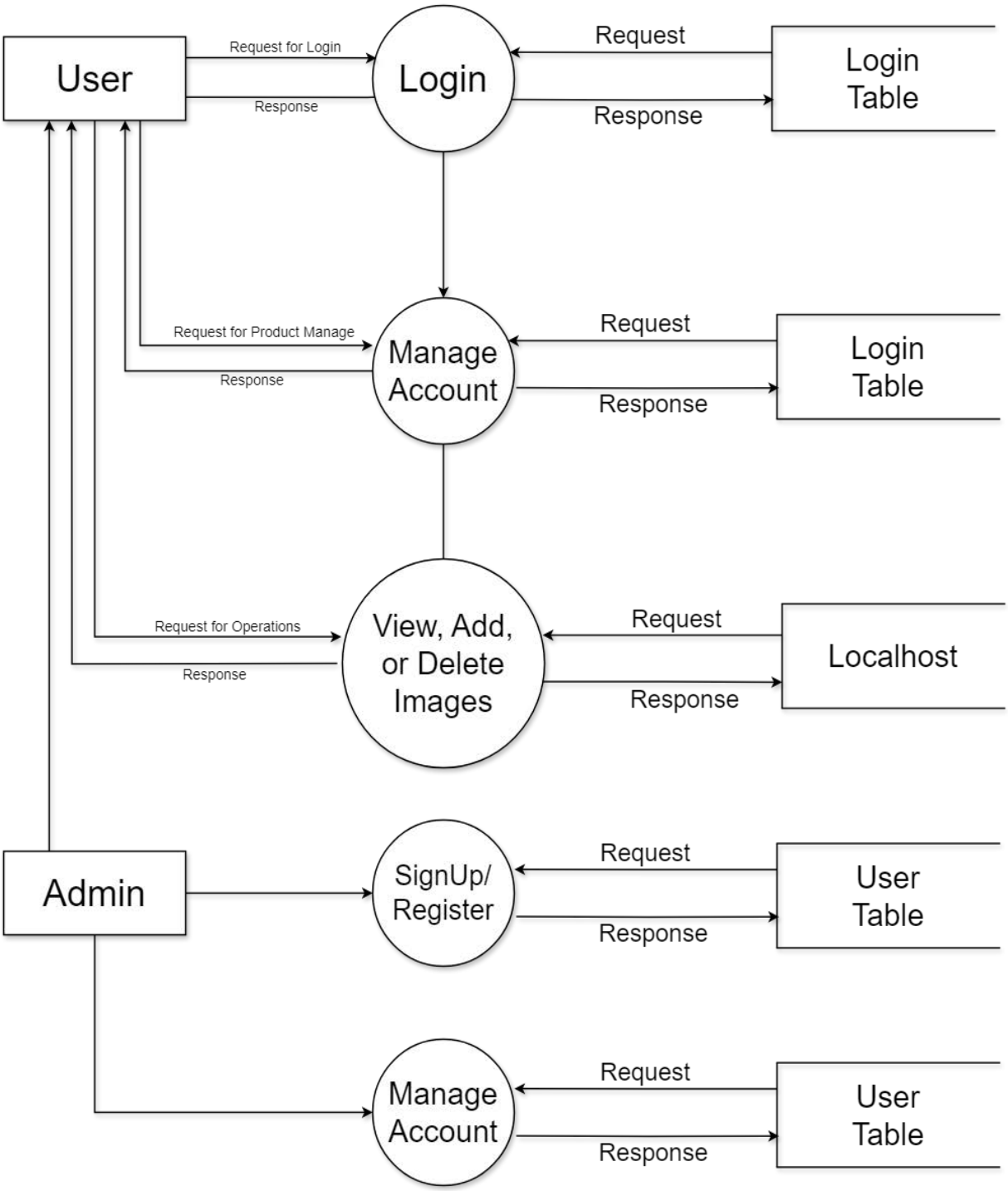

Figure 4.3 Data Flow Diagram of Image Gallery (level 2)

Chapter 5

Use Case Diagram

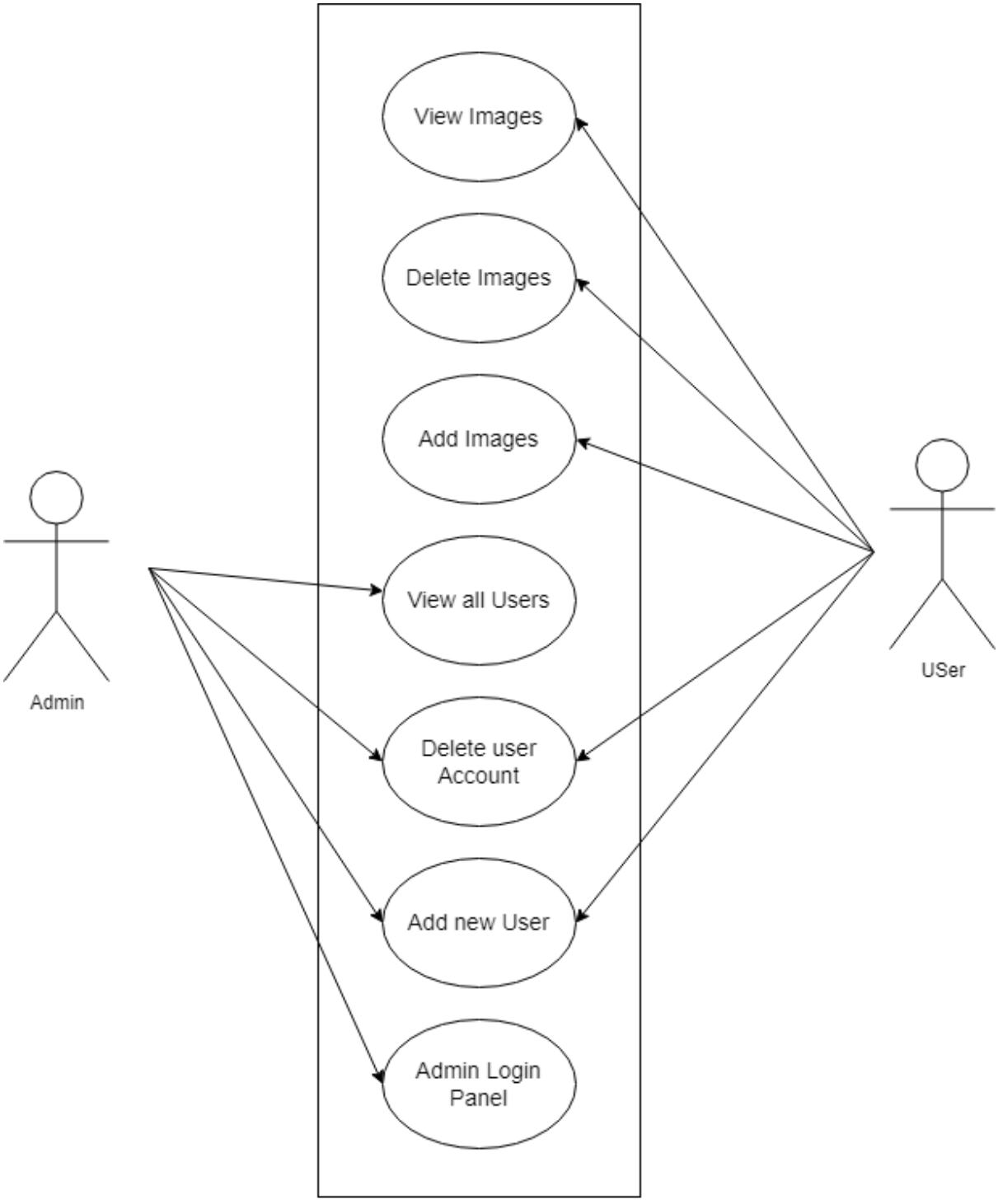

Figure 5.1 Use Case Diagram of Image Gallery

Chapter 6

Data Dictionary

Table Users:

FIELD	DATATYPE	NULLABLE	KEY	DEFAULT	EXTRAS
SrNo	int	NO	PRIMARY KEY	NULL	AUTO INCREMENT
Name	varchar(255)	NO		NULL	
Age	int	NO		NULL	
DateOfBirth	date	NO		NULL	
Gender	varchar(16)	NO		NULL	
Username	varchar(255)	NO	UNIQUE KEY	NULL	
Password	varchar(255)	NO		NULL	

Table Login:

FIELD	DATATYPE	NULLABLE	KEY	DEFAULT	EXTRAS
SrNo	int	NO	PRIMARY KEY	NULL	AUTO INCREMENT
Username	varchar(255)	NO	UNIQUE KEY	NULL	
Password	varchar(255)	NO		NULL	

Chapter 7

Screenshot of Development Phase 1

7.1 Image Gallery Front Page design

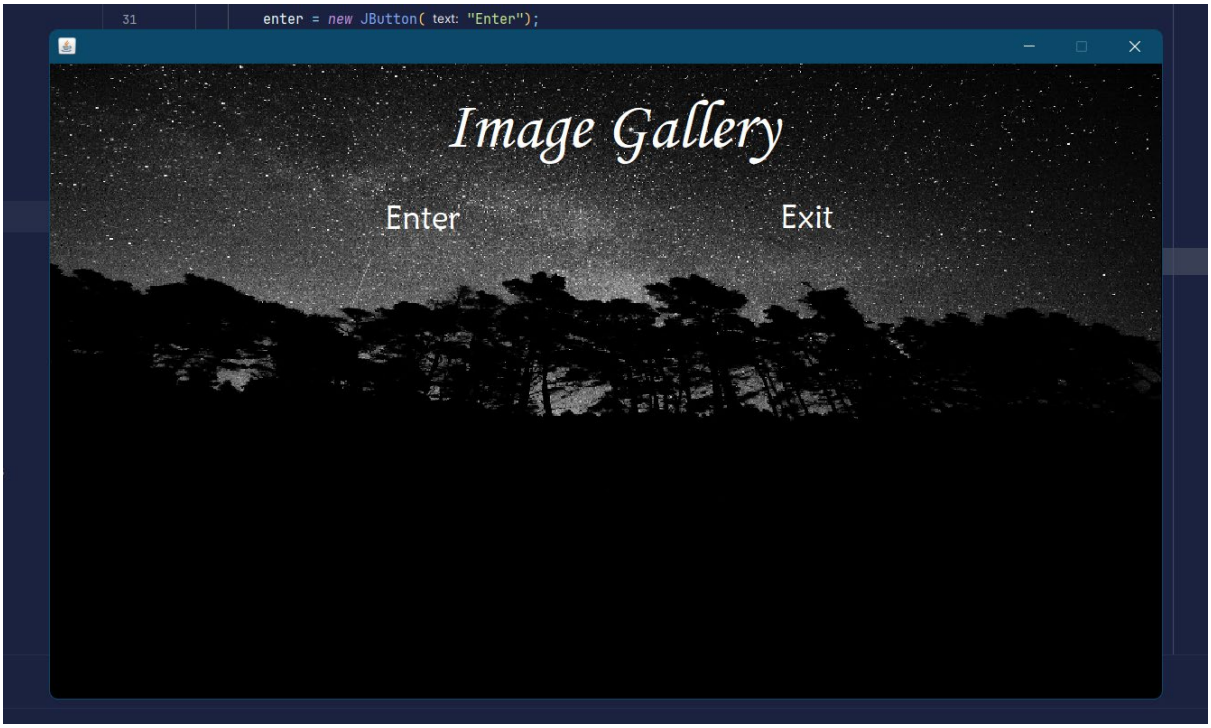

Figure 7.1 Home page

7.2 Code of Image Gallery Front Page

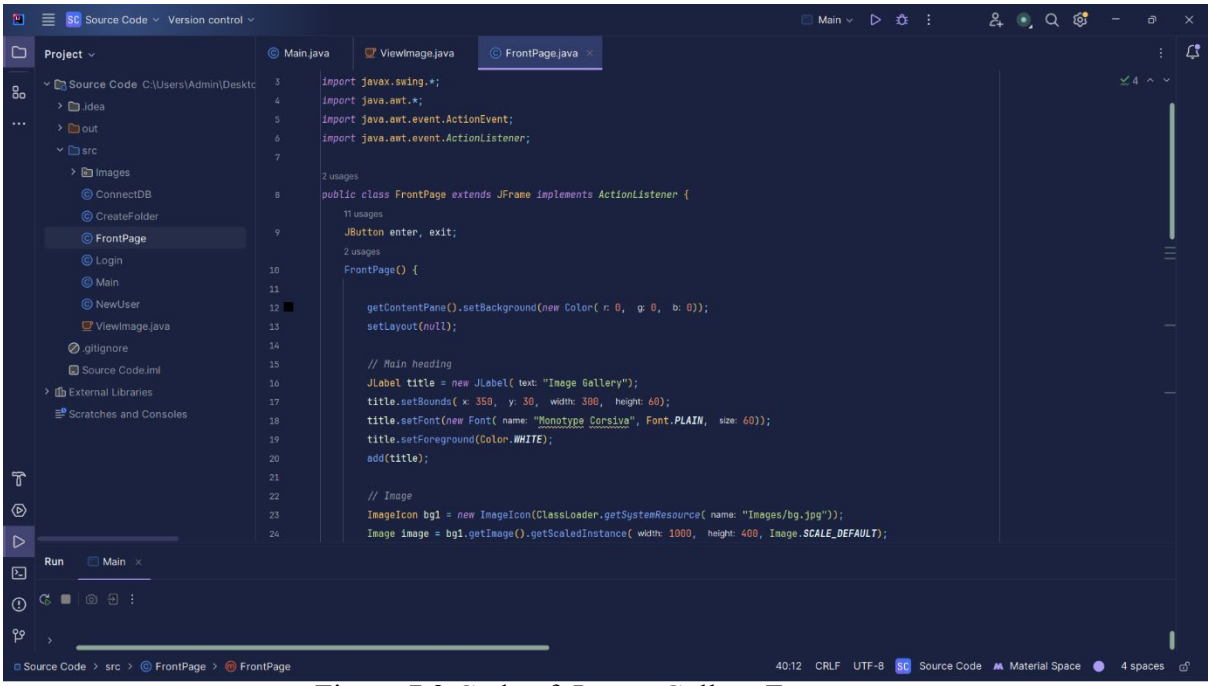

Figure 7.2 Code of Image Gallery Front page

Chapter 8
Screenshot of Development Phase 2

8.2 Image Gallery Login Page Design

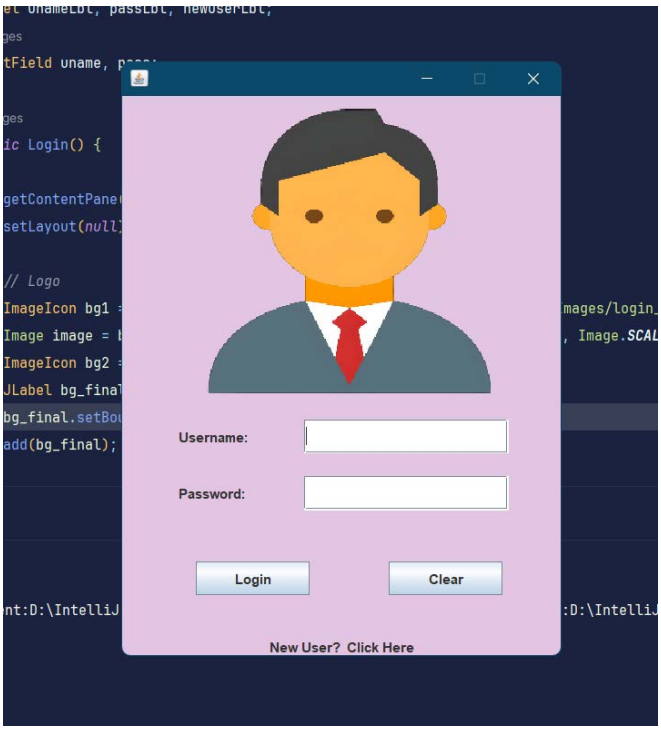

Figure 8.1 Home page

8.2 Code of Image Gallery Login Page

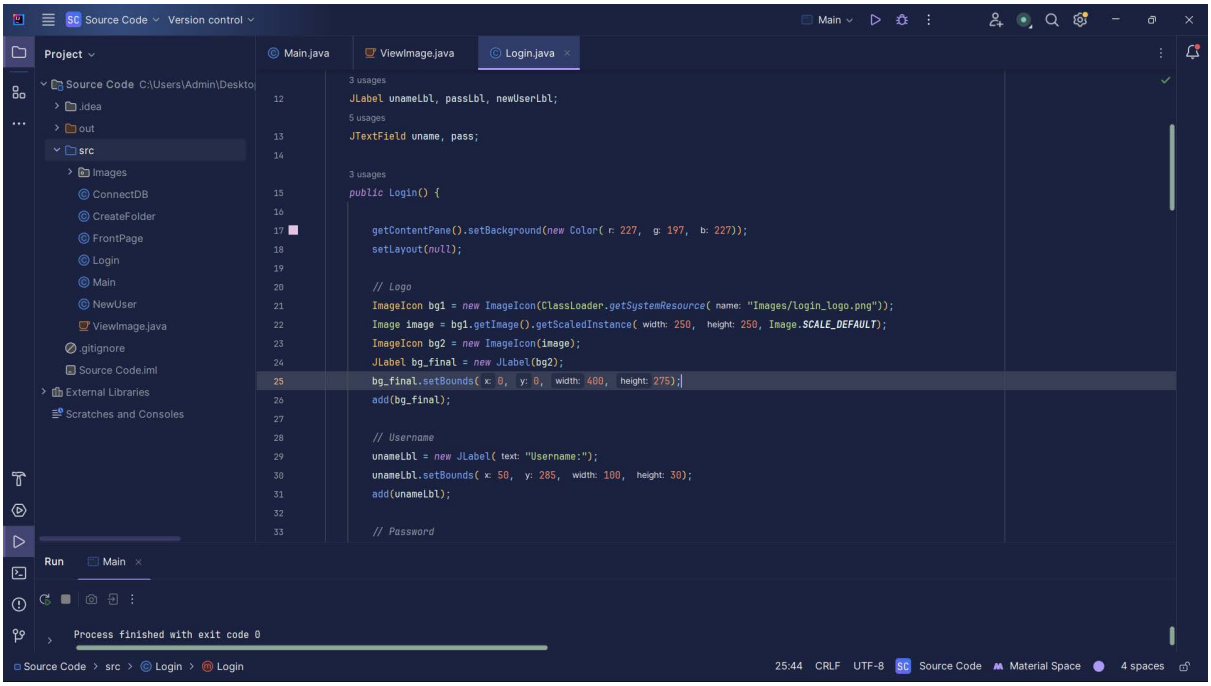

Figure 8.2 Code of Image Gallery Front page

Chapter 9

Screenshot of Development Phase 3

9.2 Image Gallery Main Page Design

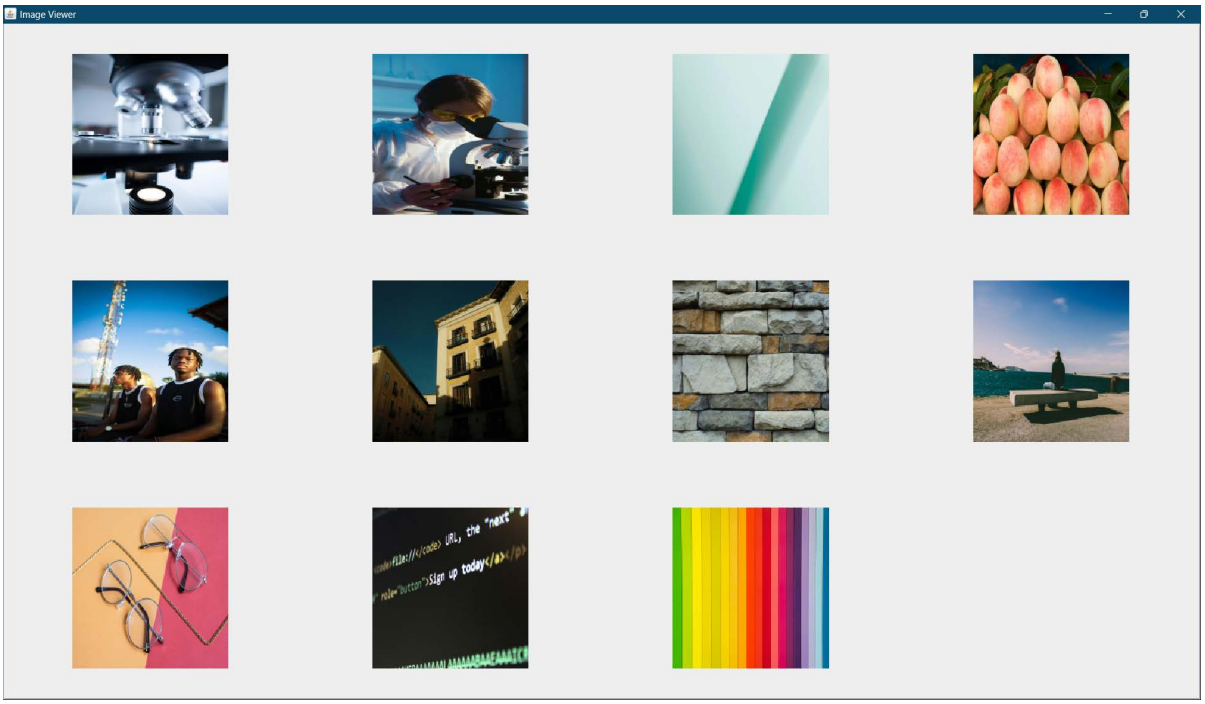

Figure 9.1 Home page

9.2 Code of Image Gallery Main Page

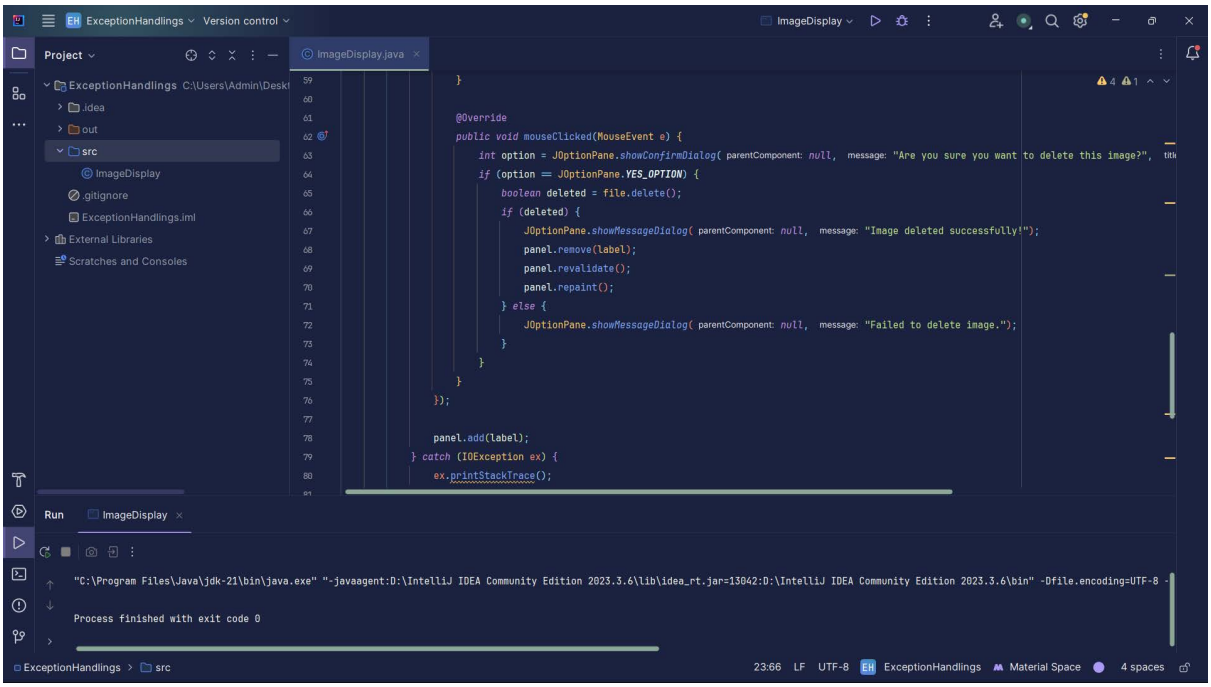

Figure 9.2 Code of Image Gallery Front page

Chapter 10

Conclusion

- The Image Gallery project merges innovation, creativity, and dedication to simplify digital image collection management.
- Through Java and MySQL integration, the application provides an intuitive platform for effortless image organization and access.
- User-centric design principles and robust security measures redefine the digital image management experience.
- The project empowers users to preserve memories, showcase portfolios, and curate visual inspirations with unparalleled ease.
- Continuous improvement ensures the Image Gallery remains the ultimate companion for all image enthusiasts.
- With user-friendly functionality and timeless appeal, the project exemplifies the power of innovation in digital creativity.

Chapter 11

Future Enhancement

- **Image Sorting:** Allow users to sort their images by date, name, or size for easier **organization an**d access.
- **Image Thumbnails:** Display thumbnails of images in the gallery view to provide users with a quick preview of their images without needing to open each one individually.
- **Bulk Image Upload:** Implement the ability for users to upload multiple images at once, saving them time and effort when adding new images to their gallery.
- **Image Sharing:** Add a feature that allows users to share individual images or entire galleries with others via email or social media.
- **Image Details:** Provide users with the option to view additional details about each image, such as file size, resolution, and metadata.
- **Responsive Design:** Ensure the application's interface is responsive and adapts to different screen sizes, making it accessible and easy to use on both desktop and mobile devices.
- **Keyboard Shortcuts:** Introduce keyboard shortcuts for common actions like navigating between images, deleting images, or opening image details, improving user efficiency.
- **Image Download:** Allow users to download individual images or entire galleries for offline access or backup purposes.
- **Feedback Mechanism:** Implement a feedback mechanism where users can provide suggestions or report issues directly within the application, helping you continuously improve the user experience.

Chapter 12

References

Website:

1. www.google.com
2. chat.openai.com

Book:

1. Introduction to Programming Using Java
2. Modeling and Analysis of Enterprise and Information Systems

Other Resources:

1. YouTube
2. Chat GPT