

ReguMate (Zoom Meeting Automation)

Synopsis of the Minor Project

in the partial fulfilment of the requirements for the degree of

BACHELORS OF COMPUTER APPLICATION (BCA)

Chhatrapati Shahu Ji Maharaj University

SESSION 2021-2024

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Executive Summary : Regumate (Regulate + Automate)

Introduction

Regumate is a groundbreaking project designed to streamline the process of joining daily zoom meetings automatically at specific scheduled times. In today's fast-paced world, virtual meetings have become an omnipresent part of our live and professional and educational lives. However, the need of manually join the meetings can be "time-consuming" and "cumbersome". Regumate addresses this challenge by offering an innovative solution for automated meeting participation.

This project leverages the power of programming to create a user-friendly, time-saving and having solution. It encapsulates the principle of automation, scheduling and user customization to deliver a tool that enhances productivity and reduces the cognitive load associated with managing virtual meetings with 'Regumate'. The user customization to deliver a tool that enhances productivity and reduces the cognitive load associated with managing virtual meetings with 'Regumate'. The user customization to deliver a tool that enhances productivity and reduces the cognitive load associated with managing virtual meetings with 'Regumate'. In this synopsis, we will delve deeper into the key features and functionality of Regumate, highlighting how it simplifies the process of joining zoom meetings and offering a glimpse into the technical aspects of its implementation.

Scope of Project

The Scope of zoom Automation is quite Expensive and can be applied In Various Ways To Streamline The optimize Zoom Meeting and Relised Trans. However here are some area Where zoom automation can be Benefical

- ① Meeting Scheduling :- You can automate the Scheduling of zoom meetings including setting up recurring meeting are on-time
- ② Registration and Attendance Management :- The application can support the automation process automate the registration process for webinars and file
- ③ Meeting Reminders :- Send automated reminders to participate before meeting or webinars
- ④ Meeting Recording :- Automatically record zoom meeting and store them in designated locations
- ⑤ Reporting and Analytics :- Generate automated reports on meeting attend participation engagement, and other newest devices
- ⑥ Integration :- Integrate zoom with other tools and platforms such as CRP1 System, to automatic data transfer and work flows.

- ③ Access Control:- Integrate zoom with other tools and platform such as CRM sol, to automate data transform and workforce.
- ④ Virtual Background and Filter:- Automate the application of virtual background or filter during meetings
- ⑤ Chatbot:- Developer can create a chatbot application system and assist with meeting related
- ⑥ Post Meeting Actions:- Automate actions after a meeting ,such as sending follow up-emails ,sharing meeting notes ,can updating CRM
- ⑦ Security:- Implemented automated security measures to protect meeting from unauthorized access or disruption

Final Review

The scope of zoom automation can vary depending on your specific needs and the tools are participation you integrate with zoom .it can significantly enhance the efficiency and productivity of online meeting and webinar .The extents of zoom automation depends on your specific needs and the integration you setup Business and organisations can use these automation techniques to save ,enhance the user experience and ensure a seamless zoom meeting and webinar process.

Key Objective :-

Automated Meeting participation:-

Regumate eliminates the need for user to manually join their daily zoom meetings, ensuring a seamless and effective experience

Scheduling flexibility :-

User can customize the software to automatically join meetings at specific area , making it adopted to various daily routine

User - friendly Interface:-

Regumate features an intutive user Interface that makes it easy to setup and manage meeting details entry in database

Reliability and consistency:-

The project focuses on ensuring reliable and Consistency meeting participation , Reducing the risk of missed on late meeting

Security of Data :-

Incorporate security measures to protect zoom credentials and sensitive data, ensuring the system is safe to use

Customization :-

Provide customization options for user to define which meeting are automated and specified different setting for each meeting

Key Features

Java based - Automation:

Regumate utilized zoom programming to automate the zoom meeting joining procedure, providing platform independence and Reliability.

XML Configuration:

User can configure meeting schedules and meeting through XML file, offering a simple and structured method for customization.

Daily Meeting Reminders:

Regumate can be set to send daily meeting reminder to user to ensure they are well-prepared for their virtual engagements.

Multi-Supported Client:

The project is designed to cater to the need of individual user as well as organization that require automation meeting attendance for multiple user.

Drawbacks of Current System

There are several system comes for online streaming and video conferencing platform as it can be frustrating to deal with Zoom support and additional cost if you encounter any technical issues or need live assistance.

- It can be challenging to use the platform of zoom optimized if you have a slow and unstable internet connection . as it affect the video and audio quality.
- It can be exhausting to participate in long or frequently Zoom meeting it can be tiring while we automate the body the bony stuff , as it cause fatigue , stress and reduce productivity.
- It can expensive to access advanced features and larger participant number, as it requires a paid subscription that may not be affordable for smaller organization or individuals.

It can be risky to use zoom without proper security measures, as it expose you to unauthorized access, Data Breaches, and Privacy Violation

While Technical limitation of zoom as we know the compatibility issue and the operating system and the system compatible with the limited UNIX OS.

① Frustation with zoom Support and Additional cost:-

The Current user interface support of the zoom desktop application is difficult for user to navigate the application is difficult it doo very technical and user have a hard time finally the specific features The screen exhaustion is the most common Support System.

② Technical Limitations in zoom's Linux Desktop Application because of WORA:-

The technical limitation zoom application occurs hence as we know we are using the most technology when it comes to platform independent hence JAVA is WORA (write once Run anywhere) type of nature so that JAVA is best for when it comes to limitation of zoom API Connection.

③ Security Concern, Limitation and Technical Challenges:-

Zoom relies upon random namely of ID's to Create private room However automate tools have been created to allow meeting ID's to be discovered. In other instances ,it appears a platform is present and allow for the Guessing of meeting ID's unauthorized access to "private" messages . Instead of cybersecurity concern return found multiple learning concern Repository this

Scope of Automation

The objective of implementing a automate project in Both an organization and a collage setting can include.

1. EFFICIENCY

Streamling The process of Scheduling and managing meeting ,making it more efficient and less time-consuming for administrator , faculty and students.

2. PUNCTUALITY

Ensuring That meeting either whenever they are for business or academic purpose , start and end on time to maximize the effective uses of Everyone Time.

3. DATA AND ANALYTICS

Gathering data on Meeting or class attendance and participation To make data driven decision for improvement in organization or academic performance

4. SCALABILITY

Ensuring That The zoom meeting automation system can adapt to The changing needs of both organization and The collage, accomodating Growth and increased usage

5. USER TRAINING AND SUPPORT

Providing Training and Support To Employees Faculty and Students To Ensure They can effectively use The automation system of Their Specific Needs

6. ENHANCED LEARNING EXPERIENCE

Making it easier for students To access online class , course Material and interact with instructor and peers .

The objective - aim To make meeting and class more efficient cost- Effective and productive while enhance cost-effective both organizational and Educational Settings.

Software Requirements

① Java Development Kit (JDK) :-

The Project requires The Installation of a given java development kit To Write , Compile and Execute java Code . The choice of JDK Version may depend on Library Compatibility and project requirement.

② Integrated Development Environment (IDE) :-

An Java Integrated Development Environment such as Eclipse , IntelliJ Idea, or NetBeans is recommended for Efficient Code development and Management.

③ Zoom API access :-

To interact with Zoom Service programmatically, The project requires Zoom API access . This involves Registering The Application , obtaining API Keys and Generating Tokens for Authentication

④ Version Control System:-

Use a version Control System , such as git to manage and track changes in The Codebase facilitating Collaboration and code Management.

⑤ Java Libraries

Java Libraries and SDK's are essential for Making HTTP Request (eg. Apache HttpClient, OKHTTP) and Parsing JSON Data (eg. Jackson, GSON) for effective Communication with Zoom API

⑥ XML

An XML Configuration file is like a digital Setting menu for our project. It's important Because it helps us Control how our Connection Work. Inside This file we can set Things like The address of The Server we want To Connect The Server we Should Behave, we would need zoom API and zoom Security Key.

⑦ Database Requirements.

For a data Storage we need a Database System such as MySQL or POSTGRE SQL. To Interact with database we use a java database Connectivity API and use The database Management System.

⑧ Testing Tools

Depending upon The Complexity of The project. Testing Tools and Framework such as unit may be used To Ensure The Reliability and Stability of The Code

⑨ Operating System

The chosen operating system should support the development tools and library used in the project.

Java is the platform independent language. But the integrated development environment and other components may have specific system requirement. The feature of Java write once run anywhere also help us to easily manipulate the system recognition work over the limited period of time.

Hardware Requirements

This java Based Automation Project aims To Streamline and Enhance Tasks Related To zoom Meeting Through custom automation. To achieve This, the following Hardware and software system.

1- Computer

A standard computer with a decent Single core processor, RAM, and storage that can support the development and execution of the Java application.

2- Internet Connection

A Reliable and Stable Internet Connection is Essential for accessing connection is essential for accessing external Service. Including zoom API and the execution of Automation Algorithm.

3- Camera and Microphone

A Camera and Microphone is Required for Task Involving video or audio component.

4- Sufficient Resources

The Hardware must provide sufficient Resources (RAM, CPU, Storage) to handle the Automation Especially if working with large database or Extensive processes

Front End Tools for Automate

In our Meeting Automation Application The front End is Built Using a user Interface Developed with Java Swing . This user Interface acts as The user's Portal For Interacting With the Application , facilitating a wide Range of Functionalities for Automation Zoom Meeting . users can input Various Eventual Data Through this Interface :

➤ Username or Meeting Name

User Specify the Desired username or the name they wish To use when participating in Zoom Meeting . This features adds a personal touch to the user Experience

➤ Meeting Identity Address

User Enter The unique zoom meeting ID, a critical Element for directing them to The Specific Zoom Session They Intended To Automatic

➤ Zoom API Key

To Facilitate Automation and Integration with the Zoom platform user input their API Key.

➤ API Security Key

For Enhanced Security and Authentication in API Interaction we provide an API Security Key.

➤ Meeting Date and Time

User can connectivity indicate the exact time at which they want the application to automate their entry along with the date into zoom meeting, optimizing time mgmt

➤ Reason Behind using Java Swing

For Creativity, The User-Interface, we are using Java Swing As Java Swing is a well-established library for creating Graphical user-interface in Java Application

➤ Minimalistic and Lightweight

Swing Components are Relatively lightweight, Making them a good choice for application that require a minimalist GUI while keeping resources usage to a minimum is a priority Since the use of Java is primarily to provide a user interface for data Input and Storage, without the need for graphics-intensive tasks, Swing is the preferred choice

Back-End Tools

For The BackEnd data Storage, we are using MySQL, Server Data will be stored with the help of Java Database Connectivity. Data Received from The Front-End In The MySQL Server

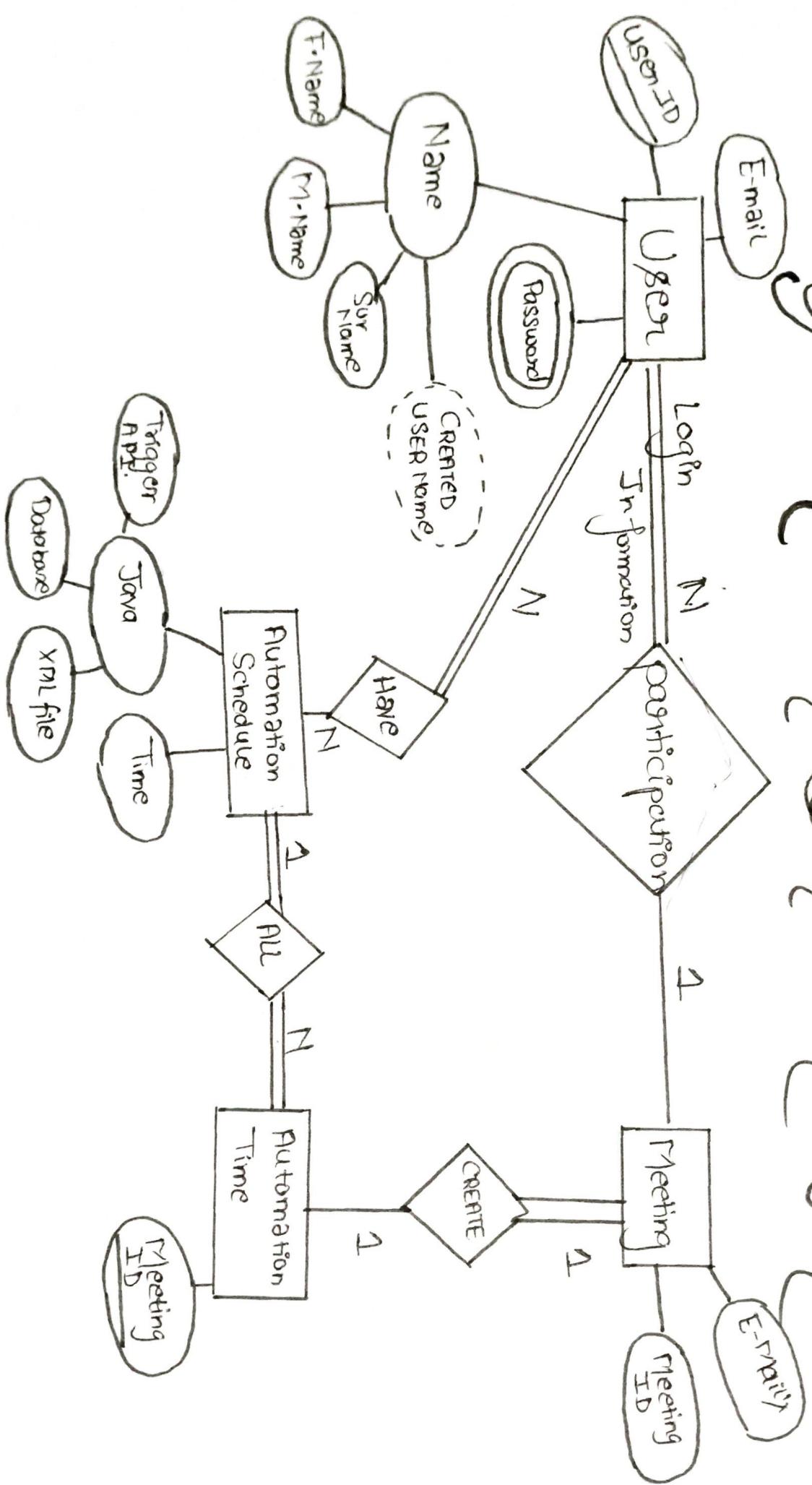
➤ Open Source and Cost-effective:

MySQL is an open source database system, which provides it free to use for most application. This can significantly reduce the cost of Database Management and Development.

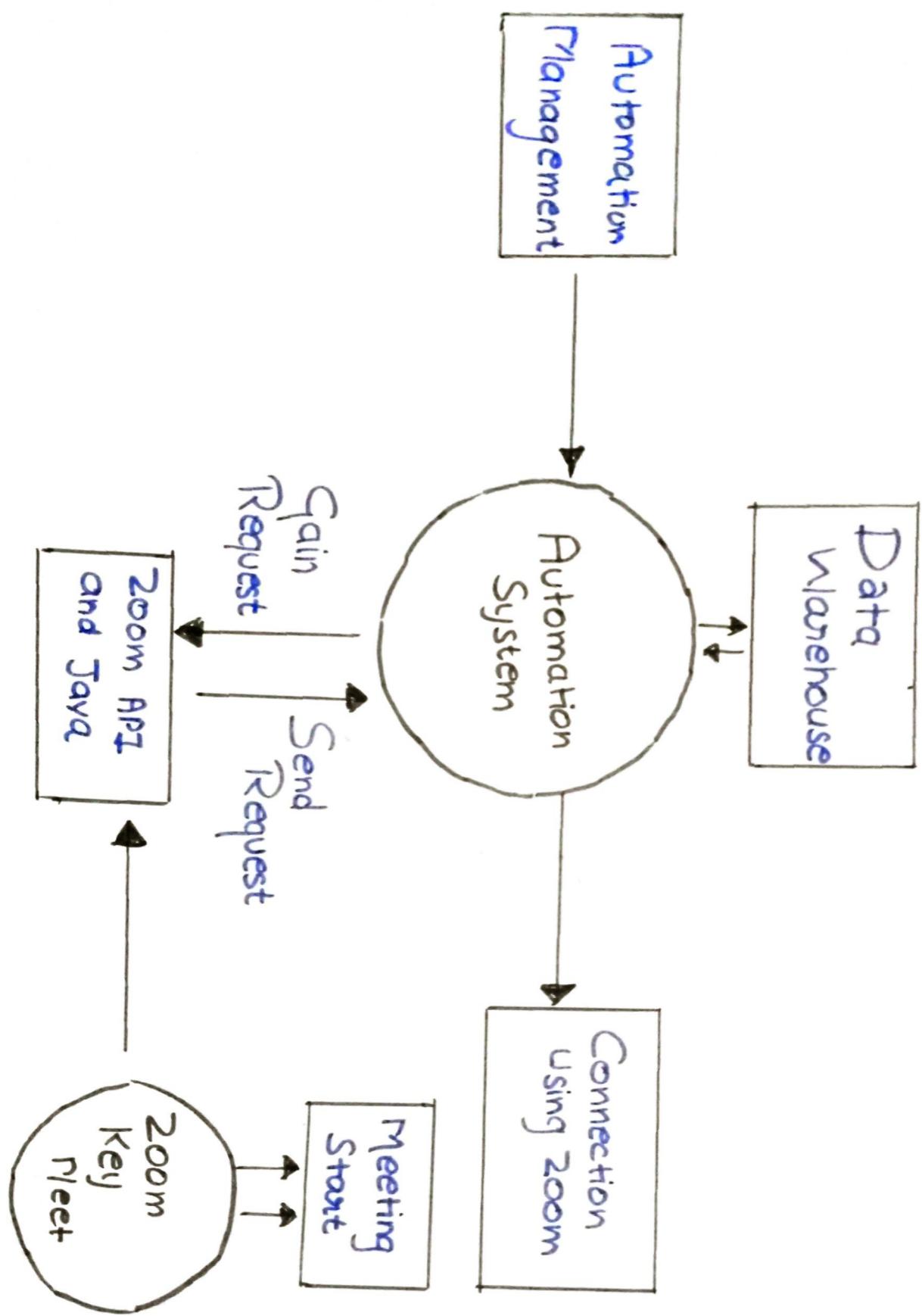
➤ Scalability

MySQL is known for its Scalability. It can handle both small and large database and is used by many high-profile website and application. It supports like Replication and Clustering for horizontal scaling.

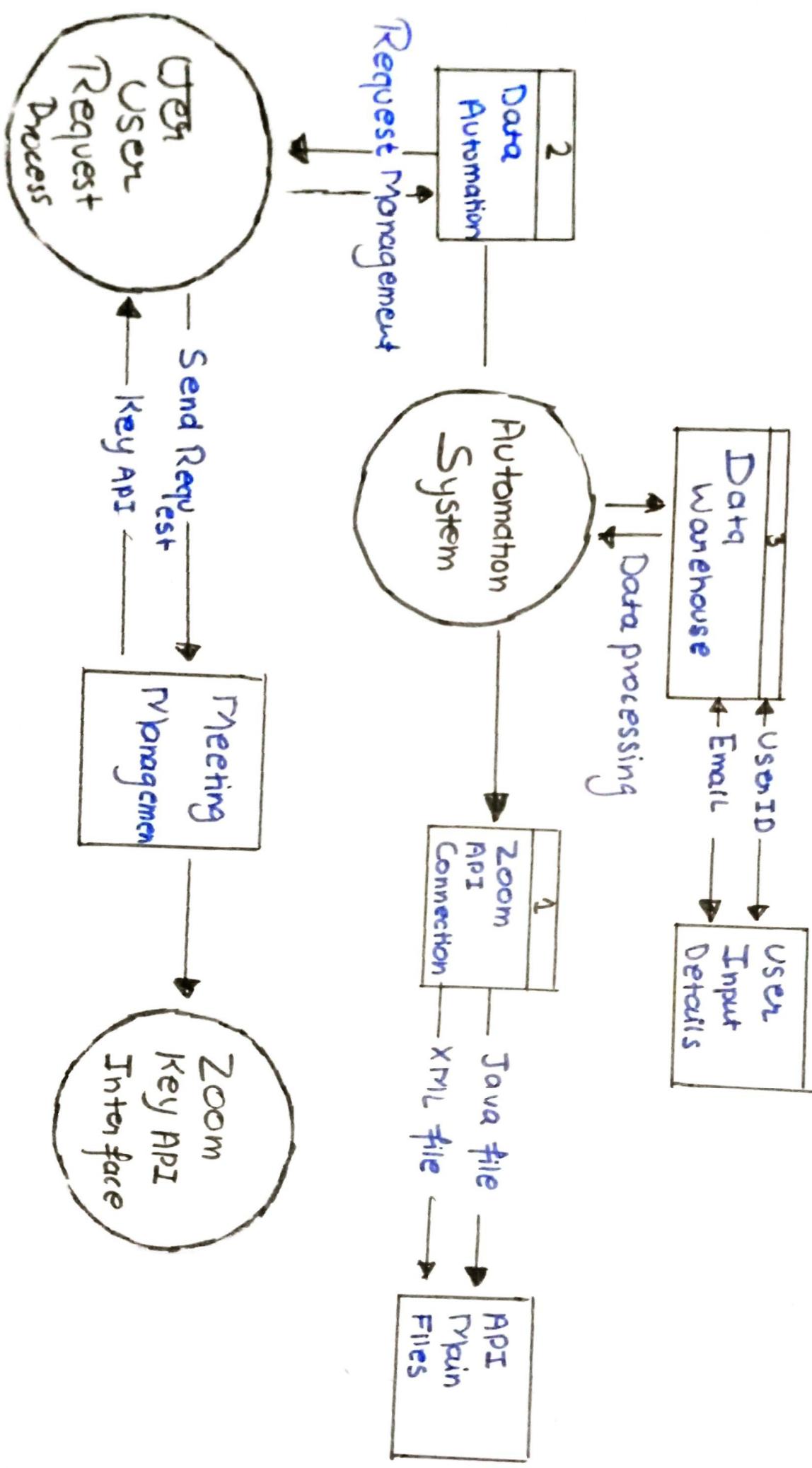
Entity - Relation ship Diagram



Data flow Diagram Level-0



Data Flow Diagram Level-1



Conclusion & Summary

In Summary, The Zoom Automation project undertaken during our College journey has been a Significant Achievement. Revolution How we manage and Engage in Virtual Meeting

Through The development

and Implementation of Automation Tools, we have not Only optimized Time Management But also Improved The Overall quality of our Online Interaction. This project Showcase our ability To harness Technology to enhance Productivity , Which will Undoubtedly serve as a valuable Skill in our future Career . it Exemplifies our adaptation and innovation. In The face of changing Educational and professional Landscape .

The Success of This project is a Testament To our Capacity To Leverage Automation for Greater Efficiency and Making a valuable Contribution to Our Academic journey