SAVITRIBAI PHULE PUNE

UNIVERSITY A PROJECT REPORT ON

DLocker – A Digital Locker for Institutional Level

SUBMITTED TOWARDS THE
PARTIAL FULFILLMENT OF THE REQUIREMENTS OF

BACHELOR OF ENGINEERING (Computer Engineering) BY

Mohit Khedkar	Exam No:71901532E
Rutuja Kondhare	Exam No:71842663M
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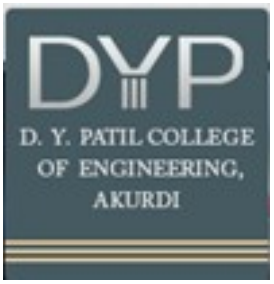
Under The Guidance of

Prof. Mrs. Deepali Rane (Guide)

Prof. Mrs. Vrushali Uttawar (Co-Guide)



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D. Y. Patil College of Engineering,
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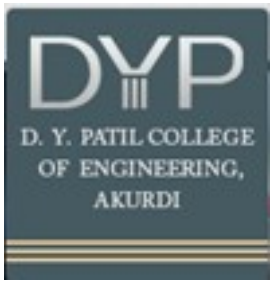

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CERTIFICATE

This is to certify that the Project Entitled

DLocker – A Digital Locker for Institutional Level

Submitted by

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is a bonafide work carried out by Students under the supervision of Prof. Mrs. Deepali Rane and it is submitted towards the partial fulfillment of the requirement of Bachelor of Engineering (Computer Engineering).

Mrs. Deepali Rane	Mrs. Vrushali Uttawar	Dr.Mrs.M.A.Potey
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PROJECT APPROVAL SHEET

DLocker - A Digital Locker for Institutional Level is successfully completed by

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at

DEPARTMENT OF COMPUTER ENGINEERING

(D. Y. Patil College of Engineering, Akurdi.)

SAVITRIBAI PHULE PUNE UNIVERSITY,PUNE

ACADEMIC YEAR 2021-2022

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Abstract

This project consists of a web based digital locker for storage of documents and certificates of the university and college purposes. This project is inspired from the idea of digilocker app from the government of India. In which we can store our government related documents.

In digi locker for institutional level we plan to implement the digital locker for storage and verification of documents from the college so that documents can be easily accessible as well as verified. So students need not carry hard copies of those documents everywhere.

Our project also helps to ease out the verification process from college and time required for it . Now any student can verify any documents in minutes from college officials.

Implementing this can ease out the process of document storage and verification of any document and can help the system to run efficiently and smoothly.

Acknowledgments

*It gives us great pleasure in presenting the preliminary project report on **'DLocker - Digital Locker for Institutional Level'**.*

*I would like to take this opportunity to thank my internal guide **Prof. Mrs. D. D. Rane** and Co-guide **Prof. Mrs. Vrushali Uttawar** for giving me all the help and guidance I needed. I am really grateful to them for their kind support. Their valuable suggestions were very helpful.*

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*In the end our special thanks to **HefShine Softwares** for providing various resources such as laboratories with all needed software platforms, continuous Internet connection, for Our Project.*

Mohit Khedkar
Rutuja Kondhare
Ankan Biswas
Shreya Parmane
(B.E. Computer Engg.)

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2.1 Project Title

DLocker - Digital locker for Institutional level

2.2 Project Option

Internal Project

2.3 Internal Guide

Prof. Mrs. Deepali D. Rane

2.4 Sponsorship and External Guide

Sponsorship is provided by HefShine Softwares Pvt Ltd Pune and Mr. Akshay Paramane has been a guide at every step.

2.5 Technical Keywords (As per ACM Keywords)

1. Computer Systems Organization
    (a) COMPUTER-COMMUNICATION NETWORKS
        i. Distributed Systems
            A. Client/server
            B. Distributed applications
            C. Distributed databases
            D. Network operating systems
            E. Distributed file systems
            F. Security and reliability issues in distributed applications
2. Software:
    (a) PROGRAMMING TECHNIQUES:

i. Object-oriented Programming

A. Inheritance

B. Polymorphism

C. Abstraction

D. Encapsulation

(b) SOFTWARE ENGINEERING:

i. Requirements/Specifications:

A. Java

B. Java Spring Boot

C. JWT Token

D. Angular

E. Bcrypt

ii. Coding Tools and Techniques:

A. VS Code, Intellij Idea for java

iii. Programming Environments:

A. Java Spring Boot

B. Angular

(c) PROGRAMMING LANGUAGES:

i. General:

A. Java

B. JavaScript

3. Information Systems:

(a) DATABASE MANAGEMENT:

i. Database Applications:

A. Relational Database

B. MYSQL

2.6 Problem Statement

Creating a Digi-Locker or digital locker which provides access to authentic virtual documents. It is a digital document wallet where students can store documents such as SSC, HSC, Degree Marksheets, Online course completion certificates etc.

2.7 Abstract

- Handling Original Documents everywhere can be frustrating and work cannot proceed without it.
- Acknowledging this issue, we have come up with DLocker – A Digital locker for Institutional Level.
- This web based digital locker for institutional level helps to store and verify documents.
- It provides safe storage for documents like X, XII, and other marksheets and other documents so it can be used when required as well as it can be verified by the concerned authority when required.

2.8 Goals and Objectives

1. Create a digital locker to store the documents of students
2. Create a verification process to verify any stored document with the concern authority
3. To ease the process of carrying the official documents.
4. To create a seamless digital storage system which can be accessible as well as secure to hold important documents.
5. To ensure the safety and authenticity of the documents

2.9 Relevant mathematics associated with the Project

System Description:

- Input: Educational Documents
- Output: Verified documents
- Functions: Upload the document, get it verified by staff, change role from student to staff.
- Mathematical formulation if possible
- Success Conditions: Documents can be shared easily to the 3rd party
- Failure Conditions: Virus may be uploaded instead of documents corrupting the system

2.10 Names of Conferences / Journals where papers can be published

- International Journal of Engineering Research and Technology (IJERT)
- Indian Journal of Computer Science and Engineering (IJCSE)
- Association for Computing Machinery
- Conference held in IITs

2.11 Review of Conference/Journal Papers supporting Project idea

- **Blockchain-based Digital Locker using BigchainDB and InterPlanetary File System:** In this paper, a blockchain based digital locker idea is given with the helps of BigchainDb and InterPlanetary tools for better and duplicity prrof documents in blockchain form.

- **Securing Technology and Government Services Enrollment – Stage:** This paper explains the brief idea of connecting of the databases into single form and using digilocker for accessing that document.
- **Automated Smart Locker for College:** This paper Explains using of Internet of Things with Digital locker for smart storing of documents inside college.
- **Digital Locker System for College or University Admissions Using Blockchain Technology:** This paper explains brief idea of digital locker to be us as the document handler in universities for all the document related and marksheet work.
- **An authentication based scheme for applications using JSON web token**: This Paper Explains the usage of JWT Token for authentication of documents for secure login and session establishment in the site.
- **Preventing IoT DDoS Attacks using Blockchain and IP Address Obfuscation:** This paper introduces us with the challenges of security with respect to digital storing of data.
- **Study of Secured Full-Stack Web Development**: This paper discusses with web patterns and secure way to creating full stack web applications with all the security against web vulnerabilities.
- **A JSON Token-Based Authentication and Access Management Schema for Cloud SaaS Applications**: This paper provides way to use JSON token based authentication in applications with big security and privacy.

2.12 Plan of Project Execution

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Topic/ Module	Module Head	Current Status	Plan of Completion
Login for Students	Shreya	Completed	Sept -21
Login for Admin & Others	Mohit	Completed	Oct-21
OTP based Authentication for Students and Teachers	Shreya	Completed	Oct-21
Creating student interface	Rutuja	Completed	Dec-21
Creating teacher interface	Rutuja	Completed	Jan-21
Creating Database for storage of Documents	Ankan	Completed	Jan-21
Creating Backend Services for interacting Students and Teachers	Ankan-Shreya	Completed	March-21
UI Touches	Mohit	Completed	March-21
Miscellaneous	Rutuja	Completed	April-21

Table 1: Plan of Execution

Technical Keywords

3.1 Area of Project

This Project aim is to create a personal Digital Locker for Student with they can use for storage of all the important documents like Admission documents, fees receipts, and College Marksheets at a single place with the option of verification from the concern authorities. Which in future they can also be used directly in college and off campus placements.

3.2 Technical Keywords

1. Computer Systems Organization
    (a) COMPUTER-COMMUNICATION NETWORKS
        i. Distributed Systems
            A. Client/server
            B. Distributed applications
            C. Distributed databases
            D. Network operating systems
            E. Distributed file systems
            F. Security and reliability issues in distributed applications
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            C. Abstraction
            D. Encapsulation
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A. Java

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i. General:

A. Java

B. JavaScript

3. Information Systems:

(a) DATABASE MANAGEMENT:

i. Database Applications:

A. Relational Database

B. MYSQL

Introduction

4.1 Project Idea

- The main idea behind DLocker is to create a online digital locker for university students to keep there personal documents like marksheets, fee receipts and more at a single place. With that they also get option to verify the documents for the authenticity of the documents.

4.2 Motivation of the Project

- The main Motivation is the digital-locker app from the government of India which is used to store important documents like aadhar card, pan card, election card and likewise.

4.3 Literature Survey

SR. No.	Title and Authors	Conference/ Journal Name and Publication Year	Advantages	Disadvantages
1.	Digital Locker System for College or University Admissions Using Blockchain Technology Pooja Vairagkar & Sayli Patil	Springer - 2021	Creating a Digital locker for the internal usage of college students.	Lacking security needed for the application.
2.	Blockchain-based Digital Locker using BigchainDB and InterPlanetary File System D. Babrekar, D. Patel, S.	IEEE Conferences - 2021	Using Blockchain to store and secure the documents	Lack of infrastructure to deal with the data generated by the user on free tire

	Patkar and V. B. Lobo,			
3.	An authentication-based scheme for applications using JSON web token S. Ahmed and Q. Mahmood	IEEE Conferences – 2019	JSON web based token for easy login for the user for each session	load should be manage to if the user load is huge, the authentication system will be slowed down.
4	A Study on a JWT-Based User Authentication and API Assessment Scheme Using IMEI in a Smart Home Environment N. Hong, M. Kim, M. Jun and J. Kang	MDPI journals - 2017	This helps us to authenticate and verify the system and the documents in the servers.	token based authentication should be done and active on each session
5.	Preventing IoT DDoS Attacks using Blockchain and IP Address Obfuscation G. He, Y. Si, X. Xiao, Q. Wei, H. Zhu and B. Xu	IEEE Conferences – 2021	Helps in preventing IOT DDoS Attacks in Applications	Newly created vulnerabilities
6.	A JSON Token-Based Authentication and Access Management Schema for Cloud SaaS Applications O. Ethelbert, F. F. Moghaddam, P. Wieder and R. Yahyapour	IEEE Conferences - 2017	This helps to create tokens for SaaS Applications on Cloud	Proper Setup should be done for the system to be in place.

Table 2: Literature Survey Table

Problem Definition and scope

5.1 Problem Statement

Creating a DigiLocker or digital locker which provides storage to store important documens with option to have access to authentic virtual documents by getting verified by the concern authority.

5.1.1 Goals and objectives

- Create a digital locker to store the documents of students
- Create a verification process to verify any stored document with the concern authority
- To ease the process of carrying the official documents.
- To create a seamless digital storage system which can be accessible as well as secure to hold important documents.
- To ensure the safety and authenticity of the documents

5.1.2 Statement of scope

- Users can upload documents in the web/cloud based system in which it will be encrypted and stored.
- Users can also send it for verification to the college to get authenticated by the concerned authority.
- Authorities can verify and use the documents when required with the permission of the user who has uploaded the document.

5.2 Major Constraints

- For the College authorities to be able to verify the documents, the concerned authority should have access to that document from the college/ institutional level, if not the verification process can't be done smoothly.

- Students can upload the document in the system where it can be secure with the help of encryption and decryption-based algorithms. if these algorithms are not implemented properly the documents may be at risk of being misleading in the cyber breach.

- Proper implementation of the verification process should be done in order to solve the authentication problem. if not done properly the authenticity of the document is in the question.

5.3 Methodologies of Problem solving and efficiency issues

- The main problem solved using this system is to eliminate the use of carrying original documents. and the issue of reverifying it again and again physically.

- We will be using the web based system to store the documents uploaded by the students and it will also be secured by the use of encryption and decryption algorithms to ensure the safety of the documents.

5.4 Outcome

- We can access the documents from anywhere with the help of this project.

- the documents uploaded can be verified and the authenticity of the document can be checked.

- physical need to carry any document will be eliminated completely.

5.5 Applications

- Storage systems
- Digital lockers
- Banking Systems
- Educational Institutional
- Medical Fields

5.6 Hardware Resources Required

Sr. No.	Parameter	Minimum Requirement	Justification
1	CPU Speed	2 GHz	To perform the operations in the browsers.
2	RAM	2 GB	To run any browser to access the website

Table 3: Hardware Requirements

5.7 Software Resources Required

Platform :

1. Operating System: windows XP,7,10,11, Ubuntu, Kali ,parrotOS
2. IDE: Spring tool suite, Vscode
3. Programming Language- Java, Angular
4. Framework: Spring boot
5. Postman Api

Project Plan

6.1 Project Estimates

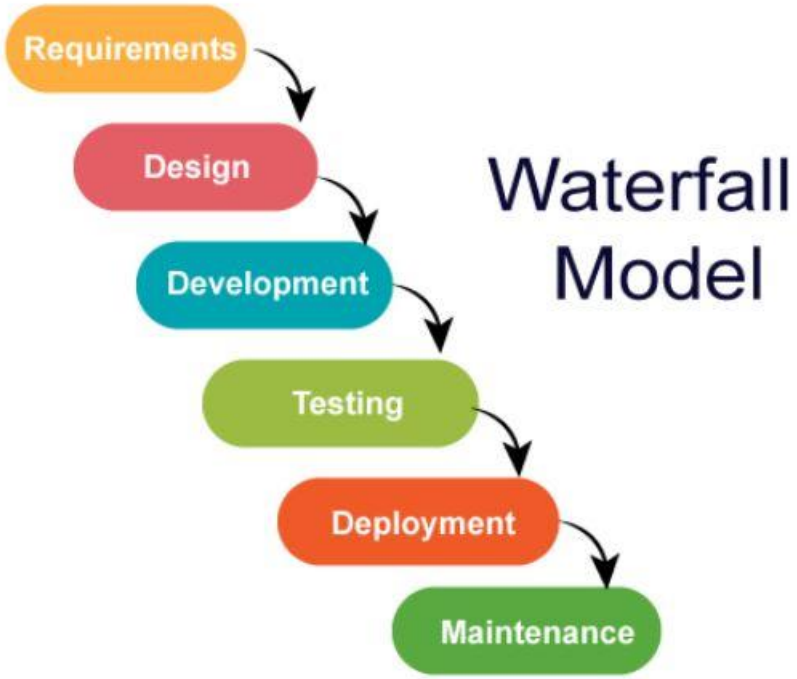


Figure 1: Waterfall Model

- Requirement gathering and analysis In this step of the waterfall we identify what are various requirements are needed for our project such are software and hardware required, database, and interfaces, first of all, collect online all paper and analysis the all paper.
- System Design In this system design phase we design a system that is easily understood by the user i.e. user friendly. We design some UML diagrams and data flow diagrams to understand the system flow and system module and sequence of execution. system design in which that design the all web pages for example that login, registration, forget password, contact, etc.
  ● Implementation In the implementation phase of our project we have implemented various modules required to successfully get the expected outcome at the different module levels. With inputs from system design, the

system is first developed in small programs called units, which are integrated into the next phase. Each unit is developed and tested for its functionality which is referred to as Unit Testing.

● Testing The different test cases are performed to test whether the project module is giving the expected outcome in the assumed time. All the units developed in the implementation phase are integrated into a system after testing each unit. Post integration the entire system is tested for any faults andfailures.

● Deployment of System Once the functional and non-functional testing is done, the product is deployed in the customer environment or released into themarket.

● Maintenance There are some issues that come up in the client environment. To fix those issues patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment. All these phases are cascaded to each other in which progress is seen as flowing steadily downwards like a waterfall through the phases. The next phase is started only after the defined set of goals is achieved for the previous phase and it is signed off, so the name ”Waterfall Model”.In this model, phases do not overlap.

6.1.1 Reconciled Estimates

6.1.1.1 Cost Estimate –

- Development Cost
- Hosting Cost

6.1.1.2 Time Estimates - 10 Months

6.1.2 Project Resources

People - 4 People

OS - Windows - 10

Software: VsCode, Spring tool suite

Hardware: - Any laptop/pc with decant size ram and Computing Power

6.2 Risk Management w.r.t. NP Hard analysis

- The main risk is to secure storage of the document in the system as any wrong entry in the system can cause a cyber breach in the system, which can cause the document leak and threat to the system.

6.2.1 Risk Identification

1. Are end-users enthusiastically committed to the project and the system/product to be built?

Answer: YES

2. Are requirements fully understood by the software engineering team and its customers?

Answer: YES

3. Do end-users have realistic expectations?

Answer: YES

Does the software engineering team have the right mix of skills?

Answer: YES

5. Are project requirements stable?

Answer: No

6. Is the number of people on the project team adequate to do the job?

Answer: YES

7. Do all customer/user constituencies agree on the importance of the project and on the requirements for the system/product to be built?

Answer: YES

6.2.2 Risk Analysis

- The login details should be protected by the user and the credential of the college should be separate.
- The document should be encrypted/decrypted otherwise there will be data breach in the system which will not be beneficial for anyone.

6.2.3 Overview of Risk Mitigation, Monitoring, Management:

As we are going to use the resources and data from the users system we should also respect the privacy of the users data. For that we will apply some rules on access and storage of that data and all the resources that are going to be used. All its details and its priority is discussed in the following table of Mitigation and monitoring.

Sr. No	Title	Key Action	Priority
1.	Securing Data collected while performing tasks.	Store these data only at Local storage. Uploading this data at third party server will cause breach of user security and privacy.	High
2.	Login details of the users system	Don't store these details at any cost.	High
3.	Access to the Users file from Servers	Access to these file should be in the form of read-only.	Moderate

Table 4: Overview of risk mitigation

6.3 Project Schedule

6.3.1 Project task set

Major Tasks in the Project stages are:

- Use AES(Advanced Encryption Standard for encrypting documents on the server side)
- Bcrypt for password encryption
- Spring security and JWT
- Encryption/Decryption algorithm for hashing the key used in AES

Impact	Value	Description
Very high	> 10%	Schedule impact or Unacceptable quality
High	5 − 10%	Schedule impact or Some parts of the project have low quality
Medium	< 5%	Schedule impact or Barely noticeable degradation in quality Low Impact on schedule or Quality can be incorporated

Table 5: Risk Impact definitions [**?**]

6.3.2 Task network

Project tasks and their dependencies are noted in this diagrammatic form below.

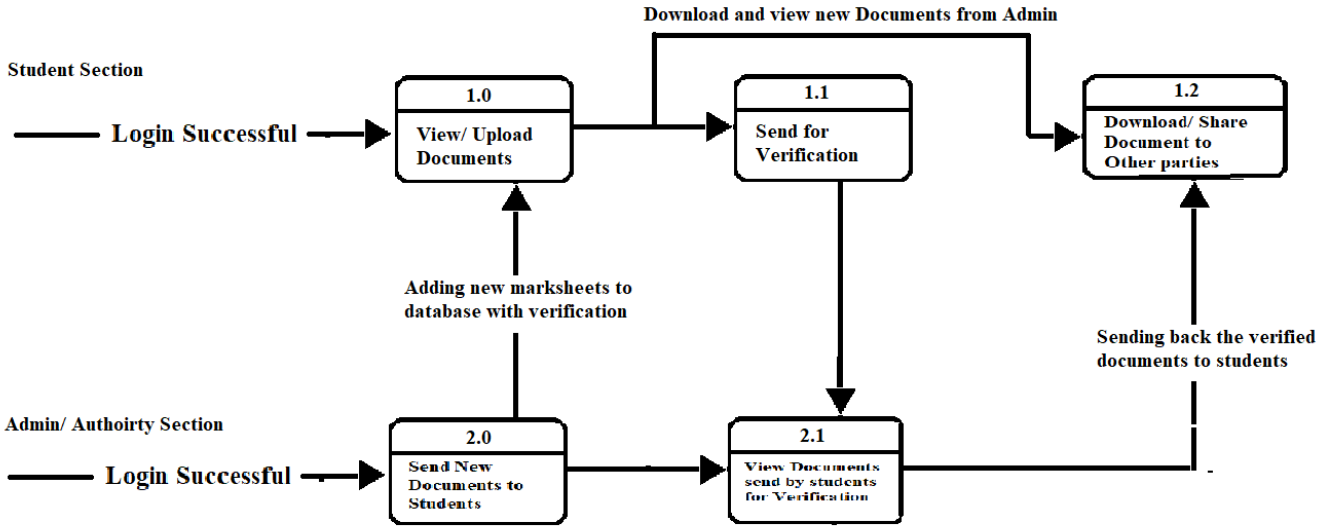


Figure 2: Task Network

6.4 Team Organization

6.4.1 Team structure

Guide: Prof. Mrs. Deepali Rane

Co-Guide: Prof. Mrs. Vrushali Uttawar

Team Members: 1. Mohit Khedkar

2. Rutuja Kondhare

3. Ankan Biswas

4. Shreya Paramane

Software requirement specification

7.1 Introduction

7.1.1 Purpose and Scope of Document

Purpose of digital locker is to securely store the important documents and to be able to view, verify and store the document in the secure server. The verification is important to find out the authenticity of the document. The verification will be done through the college concerned authority which will verify the document with the origin of the document. like the marksheet uploaded by the student will be verified across the marksheet issued by the college. if the numbers and marksheet match the verification will be offered.

This will enable us to access any document through ease along with verifying it from the college concerned authority which in turn saves time for verification of the documents.

7.1.2 Overview of responsibilities of Developer

- Perform project design and development activities according to project requirements.
- Coordinate with team mates in preparing project proposals and contractual documents.
- Track project progress regularly and develop status reports to management.
- Ensure that the project is completed within allotted timelines.
- Research and recommend new technologies to carry out project development tasks.
- Provide assistance to other Developers, perform peer reviews and provide feedback for improvements.
- Develop time reduction initiatives while maintaining quality and productivity.

7.2 Usage Scenario

7.2.1 User profiles

Student - A student profile for each student for uploading and accessing the documents

College - A college authorizes a person for the verification of the documents from the college side.

7.2.2 Use-cases

Sr. No.	Use Case	Description	Actors	Assumptions
1	Student Login	Student Login on Application	User	Students can success fully login
2	Admin/Teacher Login	Admin/ Teacher login on Application	User	Teachers can successfully Login
3	Documents Upload	Documents upload on portal	User	Documents upload successfully
4	Document send for verification	Documents send for verification to teachers	User	Documents send to concern authority for verification
5	Documents viewed and verification process	Documents are received and verified by teachers	User	Documents will be verified by concern authority and send back to students
6	Verified documents received by Student	Documents after verification returned to Students	User	Documents with verification status received by students
7	Download or Share Documents	Verified documents can be shared or downloaded for further use	User	Documents can be Shared

Table 6: Use Cases

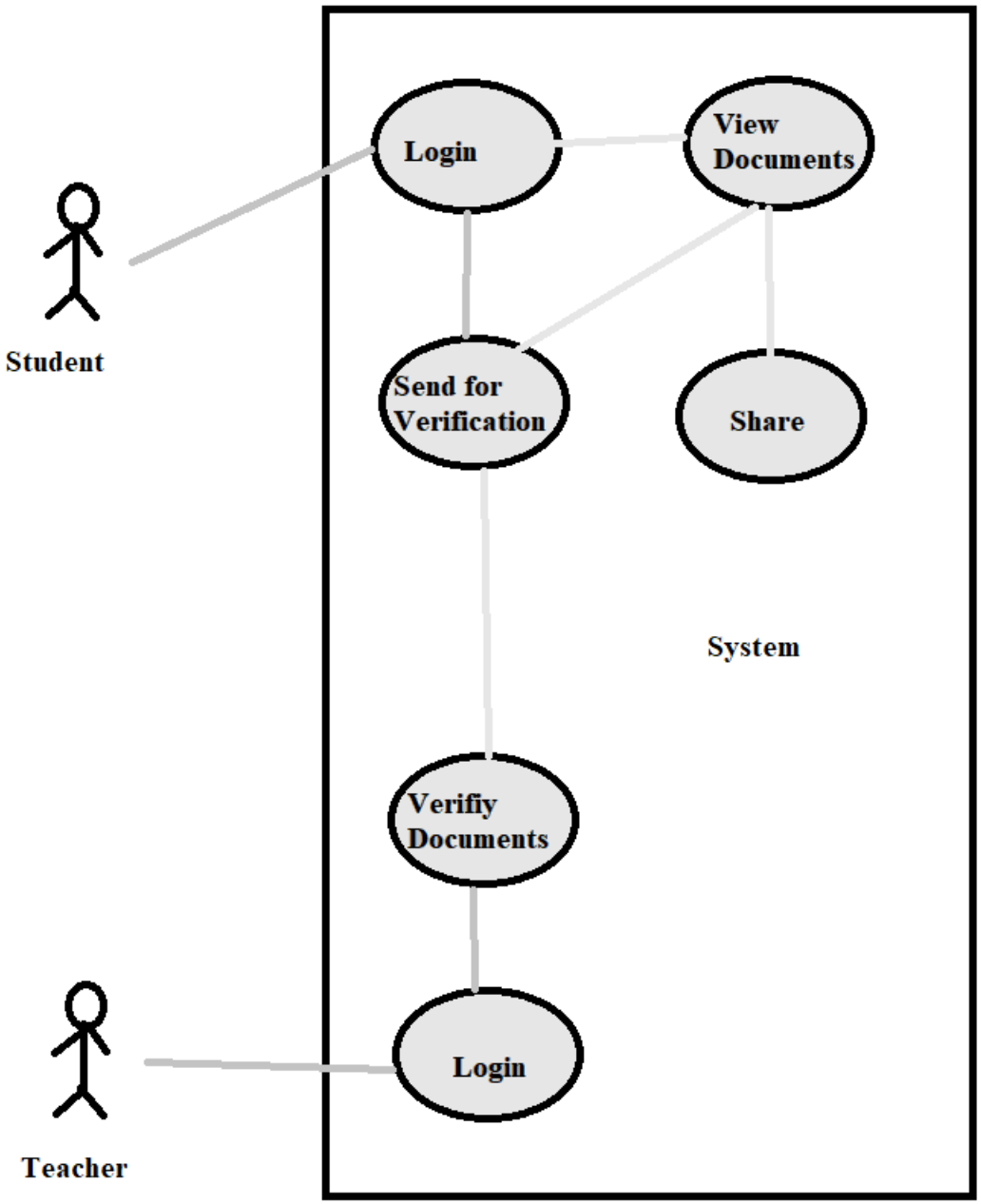


Figure 3: Use case diagram

7.3 Data Model and Description

7.3.1 Data Description

Data objects that will be managed/manipulated by the software are described in this section. The database entities or files or data structures required to be described. For data objects details can be given as below

7.3.2 Data objects and Relationships

Data objects and their major attributes and relationships among data objects are described using an ERD- like form.

7.4 Functional Model and Description

A description of each major software function, along with data flow (structured analysis) or class hierarchy (Analysis Class diagram with class description for object oriented system) is presented.

7.4.1 Data Flow Diagram

7.4.1.1 Level 0 Data Flow Diagram

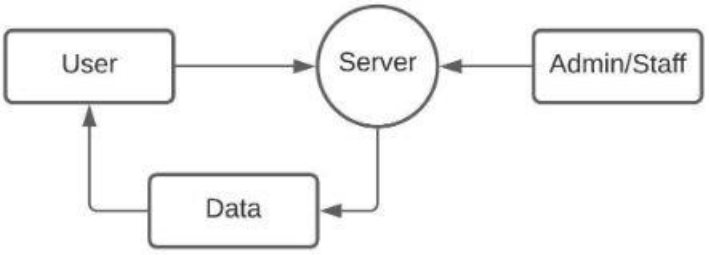


Figure 4: Level 0 Data Flow Diagram

7.4.1.2 Level 1 Data Flow Diagram

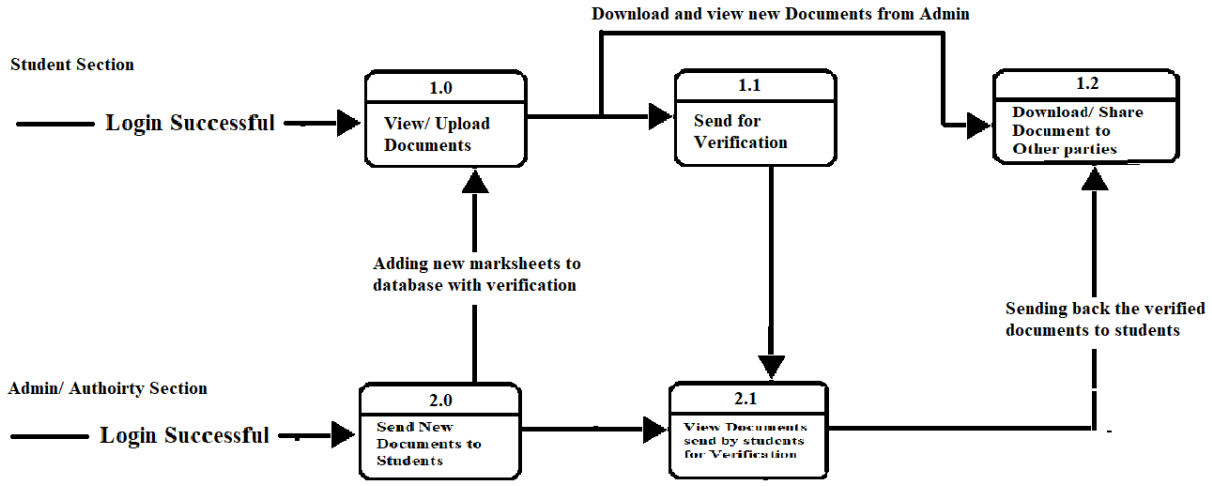


Figure 5: Level 1 Data Flow Diagram

7.4.2 Activity Diagram

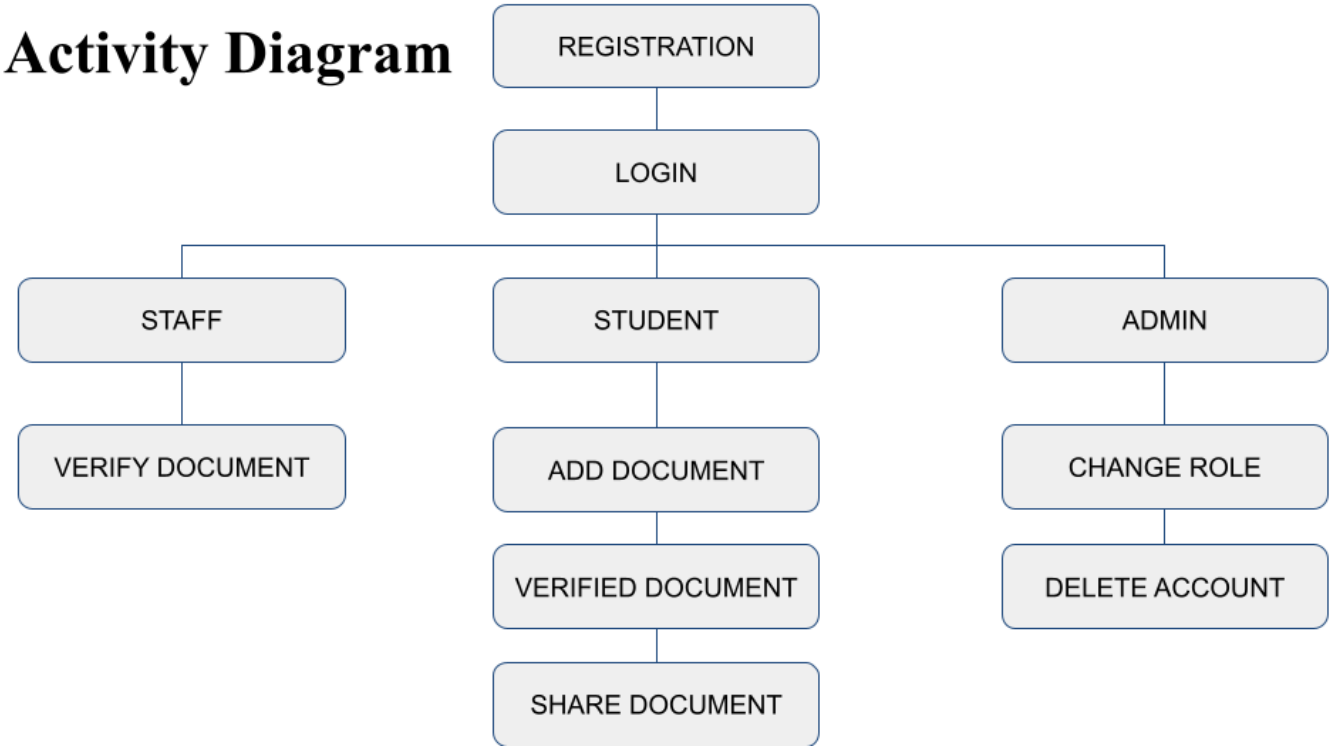


Figure 6: Activity Diagrams

7.4.3 Non Functional Requirements:

Performance Requirements: The main performance requirements that the product should satisfy are:

1. Speed: Information retrieval from the database should be as fast as possible.

2. Load balance: The server should be able to handle a reasonable number of users without any issue.

7.4.4 State Diagram:

State Transition Diagram

Fig.7 example shows the state transition diagram of Cloud SDK. The states are represented in ovals and the state of the system gets changed when certain events occur. The transitions from one state to the other are represented by arrows. The Figure shows important states and events that occur while creating new project.

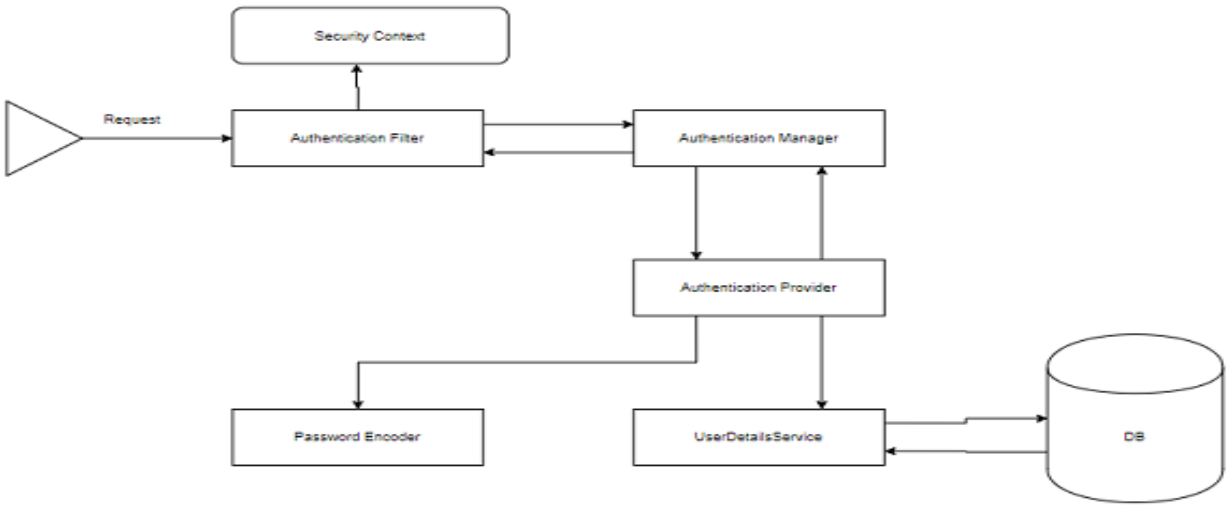


Figure 7: State transition diagram

7.4.5 Design Constraints

- As of Now Website will be only in English.
- Only Registered users are allowed on site.
- System working on single server

Detailed Design Document using Appendix A and B

8.1 Introduction

The main idea behind DLocker is to create a online digital locker for university students to keep there personal documents like marksheets, fee receipts and more at a single place. With that they also get option to verify the documents for the authenticity of the documents.

8.2 Architectural Design

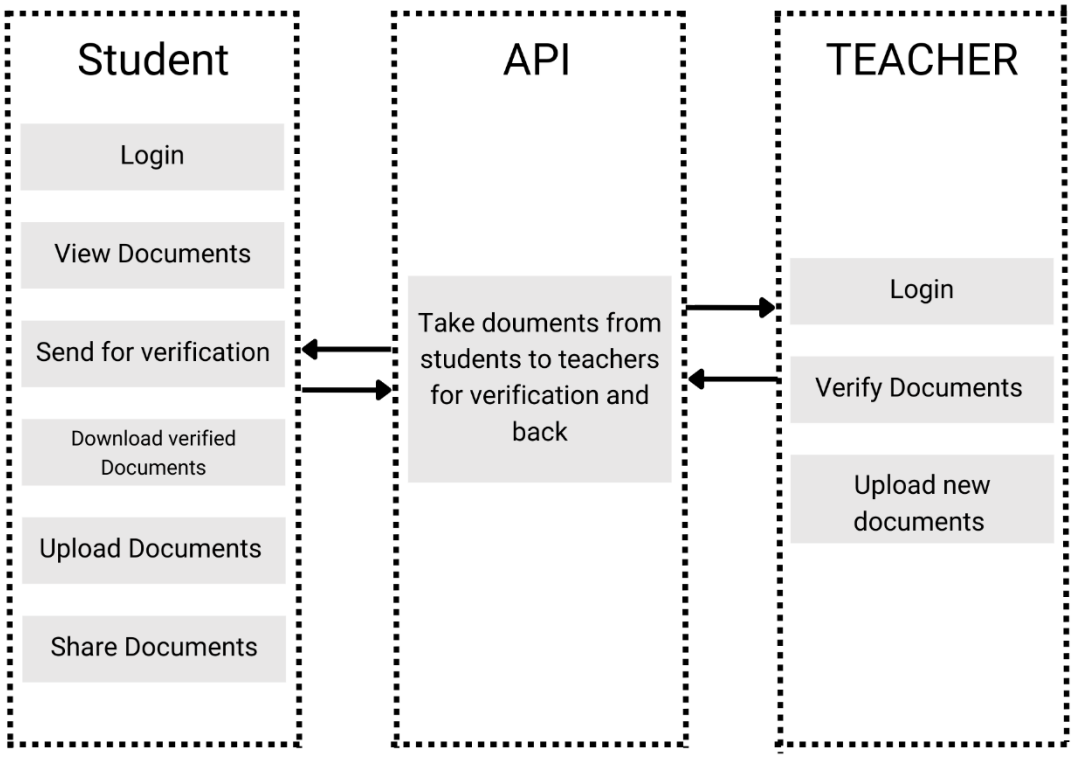


Figure 8: Architecture diagram

8.3 Data design (using Appendices A and B)

A description of all data structures including internal, global, and temporary data structures, database design (tables), file formats.

8.3.1 Internal software data structure

Data structures that are passed among components of the software are described.

8.3.2 Global data structure

Data structures that are available to major portions of the architecture are described.

8.3.3 Temporary data structure

Files created for interim use are described

8.3.4 Database description

In Digital Locker for Intuitional Level MySQL Database is used .

Project Implementation

9.1 Introduction

Creating a Digital Locker or digital locker which provides access to authentic virtual documents. It is a digital document wallet where students can store documents such as SSC, HSC, Degree Marksheets, etc

9.2 Tools and Technologies Used

Spring tool suite - Spring boot

Vs-Code - Angular

MySQL - Database

9.3 Methodologies/Algorithm Details

Spring Security

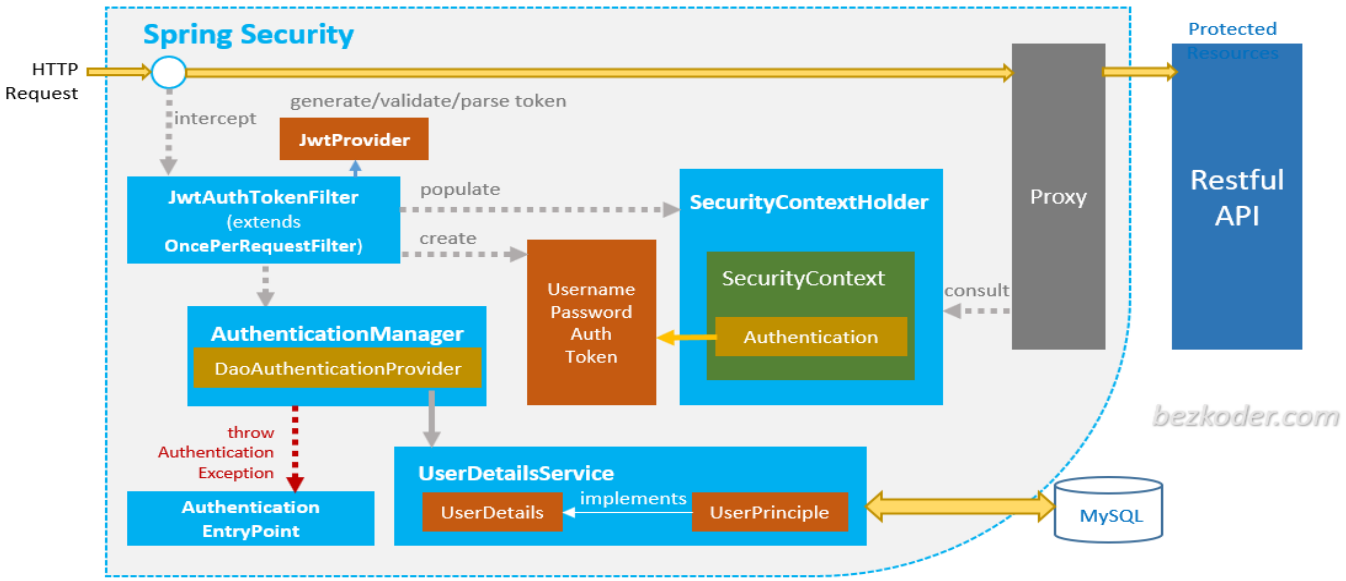


Figure 9: Spring Security diagram

BCrypt Algorithm

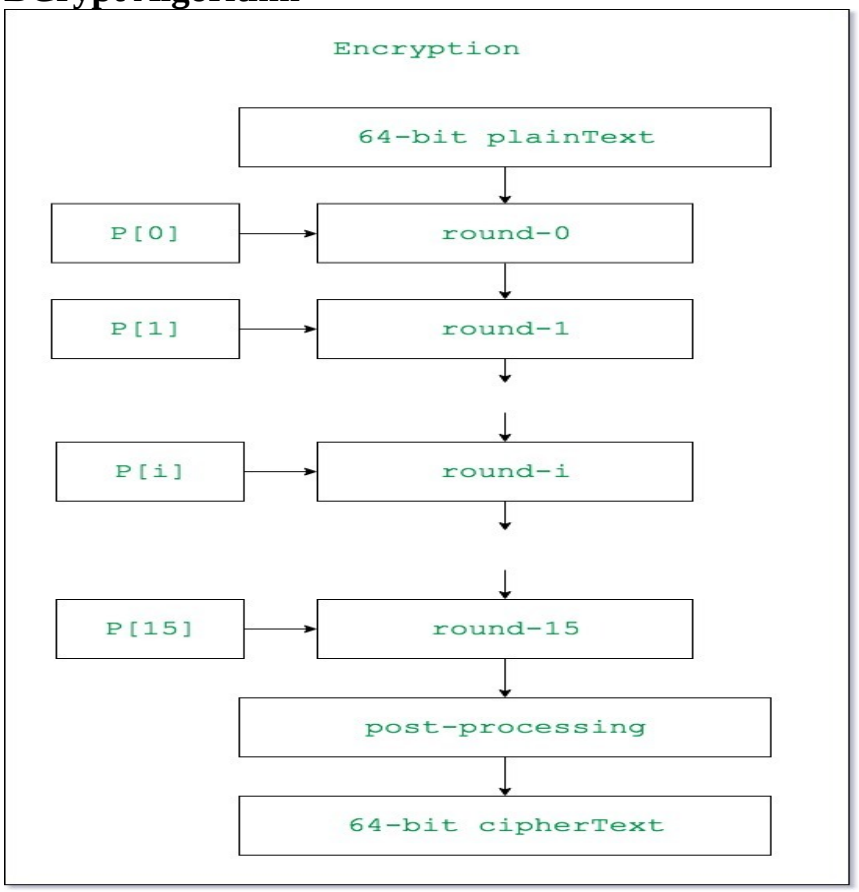
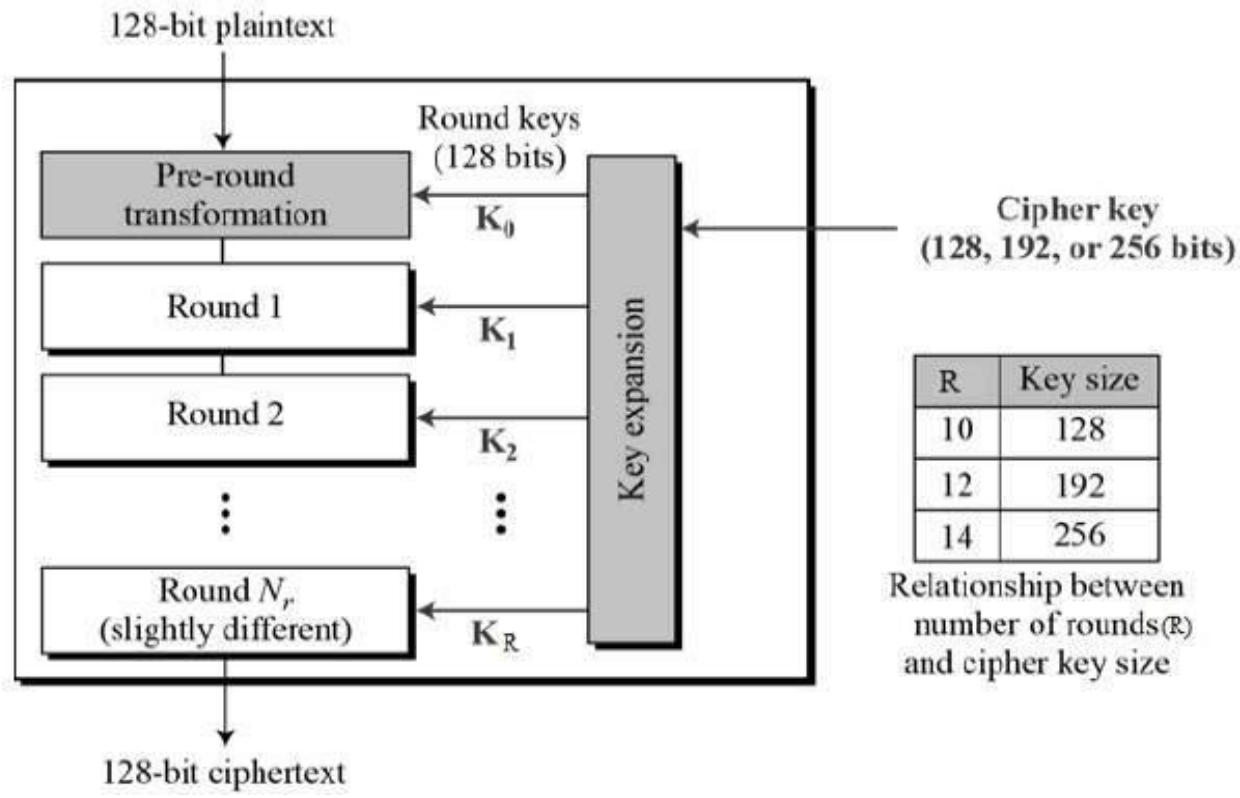


Figure 10: Bcrypt Algorithm diagram

AES(Advanced Encryption Standard)



R	Key size
10	128
12	192
14	256

Relationship between number of rounds(R) and cipher key size

Figure 11: Advanced Encryption Standard Diagram

Software Testing

10.1 Test Cases

Id	Username	Pswd	Role	Authentication	Otp	Expiry	Email	Status
1	Rey	$2a$10$h9rCnfw9ftgEaMeaPjrbyOB1APQZ736vFRrfU0W.WbaWMFVM1k55e	ROLE_staff	1	825835	2021-12-22 11:05 ;23	shreyaparamne@gmail.com	1
2	Reya	$2a$10$mYS4epM3dNgFBtGDd.q/He5p1fqweDolNJnCKoZOHsPNeWqZSi8PK	ROLE_admin	1	728382	2021-12-19 12:05 ;23	hefshinesoftwares@gmail.com	1
3	Ankan	$2a$10$h9rCnfw9ftgEaMeaPjrbyOB1APQZ736vFRrfU0W.WbaWMFVM1k55e	ROLE_stu	0	019828	2021-12-20 11:05 ;23	ankan.rana@gmail.com	1

Table 7: Test Cases

1. SYSTEM TESTING:

a. The field values were validated using JavaScript on the client-side.

b. Client-side validation included testing the following functionalities on eachpage.

i. Checking each form objects such as text boxes, select fields, and checkboxes to make sure that mandatory fields were not empty.

ii. Testing that data entered in these fields was in the correct format.

c. The referential integrity constraints and other semantic constraints associated with fetching data from the database were handled in the back end.

d. Load testing was done by having many users log in to the system simultaneously and check the working functionality of the project

Conclusion and future scope

The objective of DLocker - A Digital Locker for Institutional level is to have digital verified documents at the ease of a login. We can easily Upload, Update, Delete and Verify all college related documents. It will also help in the process of college placement related activities as every company that comes to college ask for documents from students which needs to be verified by college in-charge in order to validate.

Future Scope

- Decrypted file is stored on the server for few seconds we will try not to store it for even a second so it is secure.

- After adding more functionalities can be used globally as well to share authentic documents of any candidate to other organizations.

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Project Planner

Topic/ Module	Module Head	Current Status	Plan of Completion
Login for Students	Shreya	Completed	Sept -21
Login for Admin & Others	Mohit	Completed	Oct-21
OTP based Authentication for Students and Teachers	Shreya	Completed	Oct-21
Creating student interface	Rutuja	Completed	Dec-21
Creating teacher interface	Rutuja	Completed	Jan-21
Creating Database for storage of Documents	Ankan	Completed	Jan-21
Creating Backend Services for interacting Students and Teachers	Ankan-Shreya	Completed	March-21
UI Touches	Mohit	Completed	March-21
Miscellaneous	Rutuja	Completed	April-21

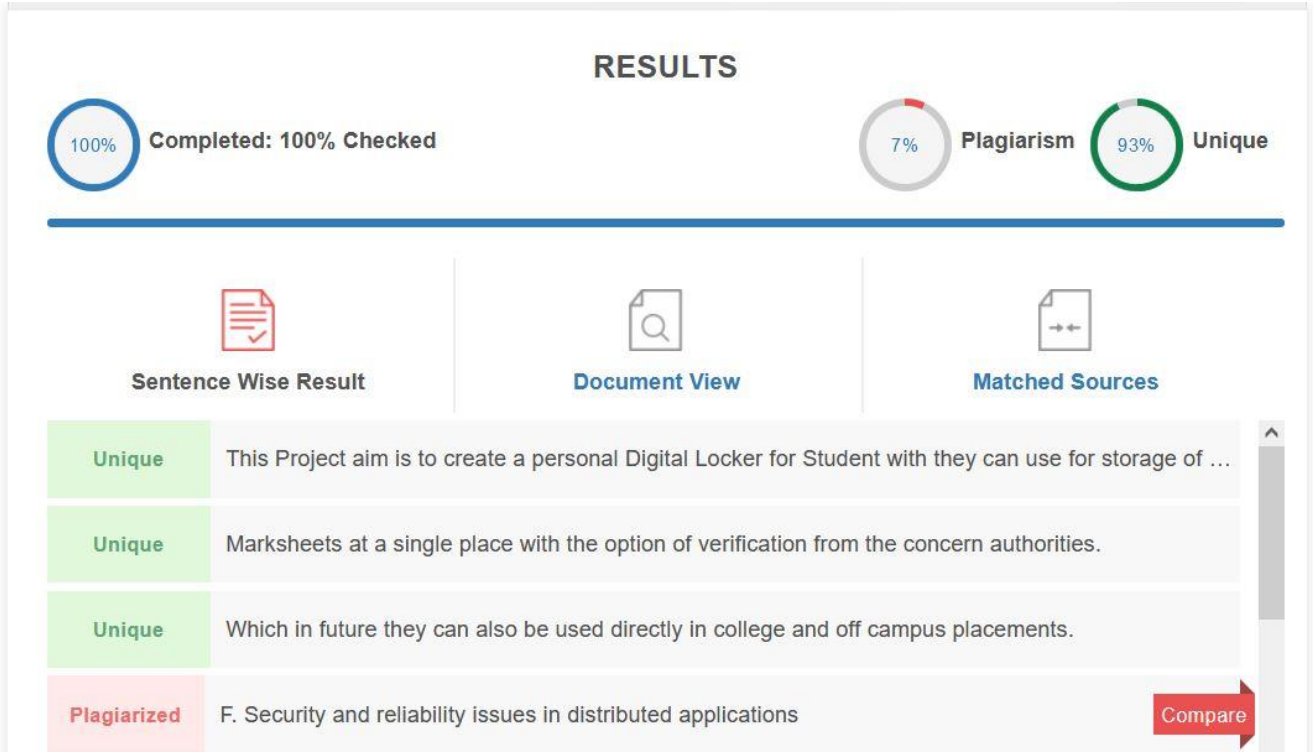
Reviewers Comments of Paper Submitted

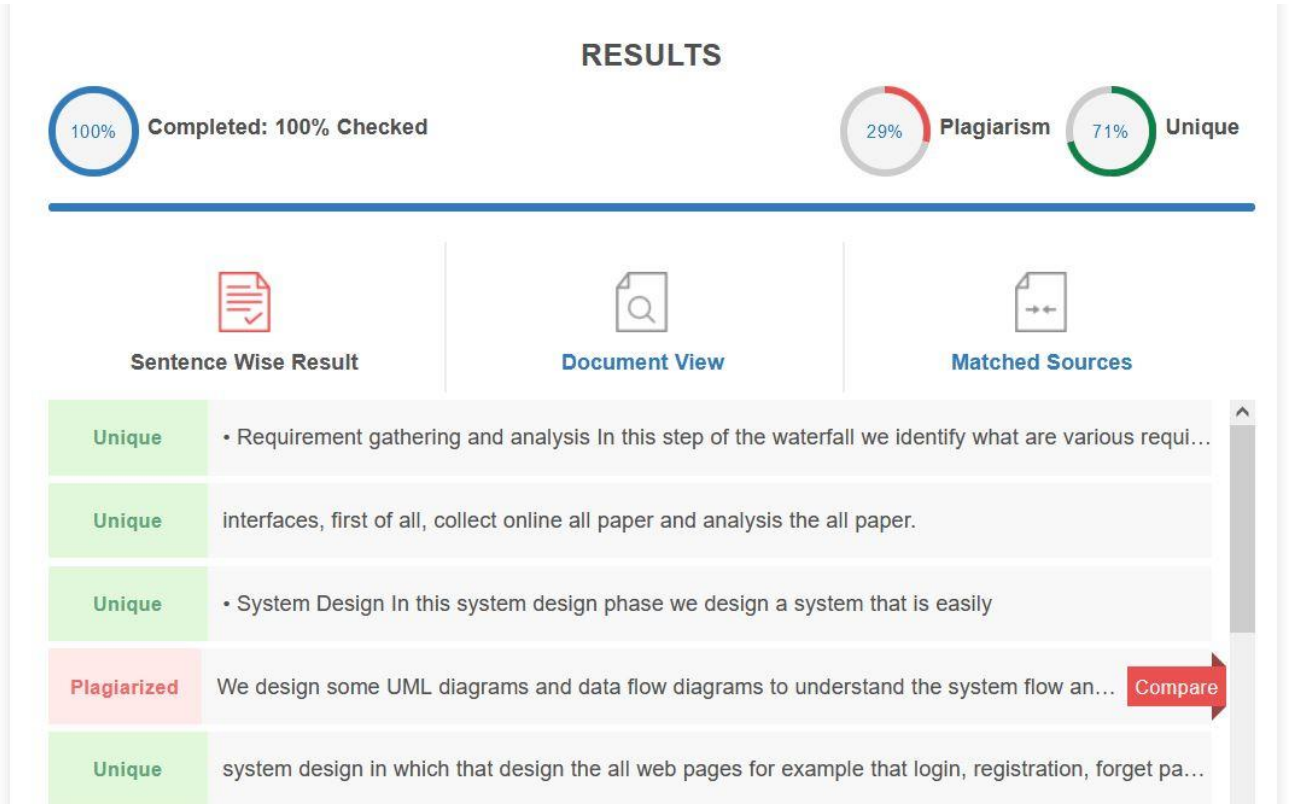
(At-least one technical paper must be submitted in Term-I on the project design in the conferences/workshops in IITs, Central Universities or UoP Conferences or equivalent International Conferences Sponsored by IEEE/ACM)

1. Paper Title:
2. Name of the Conference/Journal where paper submitted :
3. Paper accepted/rejected :
4. Review comments by reviewer :
5. Corrective actions if any :

Plagiarism Report

Plagiarism report: 82% Unique , 18% plagiarism





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