



# DLOCKER

## A DIGITAL LOCKER FOR INSTITUTIONAL LEVEL

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### BE Project 2021-22

Project Group - 14



**DYP**  
D. Y. PATIL COLLEGE  
OF ENGINEERING,  
AKURDI



# Introduction

In Today's world, its not possible to have hard copies of documents every time, everywhere. We need to have Digital prints of the documents with us to use it every time needed. But, there is a risk and authenticity issues with carrying the digital documents., for ex. security of documents, where they are stored, authenticity of the documents.

To overcome all this issues we present "DLocker – A digital Locker for institutional level which will secure the documents with the secure servers, with proper authentication and verifications from the concern authorities. So that this digitally stored documents are as verified and authentic as the hardcopy ones.

# Problem statements

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

Students can upload and verify documents like SSC Certificate, HSC Certificate, Marksheets, Fee Receipts, College related documents,etc.

# Proposed Work



## **Main User's (Students)**

Main Users like Students are the people applications is build for. students will upload, view, share, verify documents and carry a personal digitall files



## **Authenticator (College Authorities)**

Authenticator like College authorities are the admin users which will be upload new verified documents as well as verify documents that are send for verification by students



## **3rd Party Users ( Placements cells/Companies)**

3rd party Users like placements cells or companies are the people who will have access by students to view there uploaded documents for the placement purposes

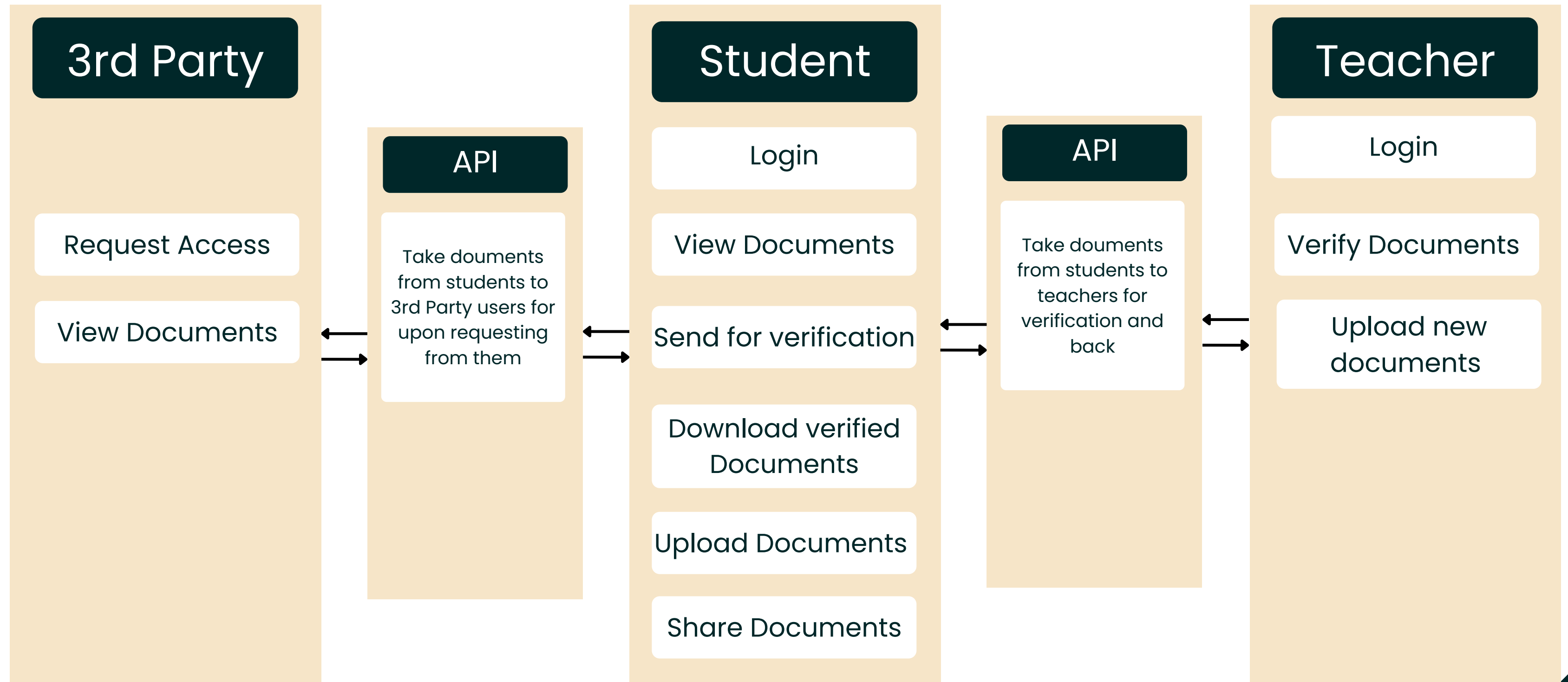
# Literature Review

SR. No.	Title & 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
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.

# Literature Review

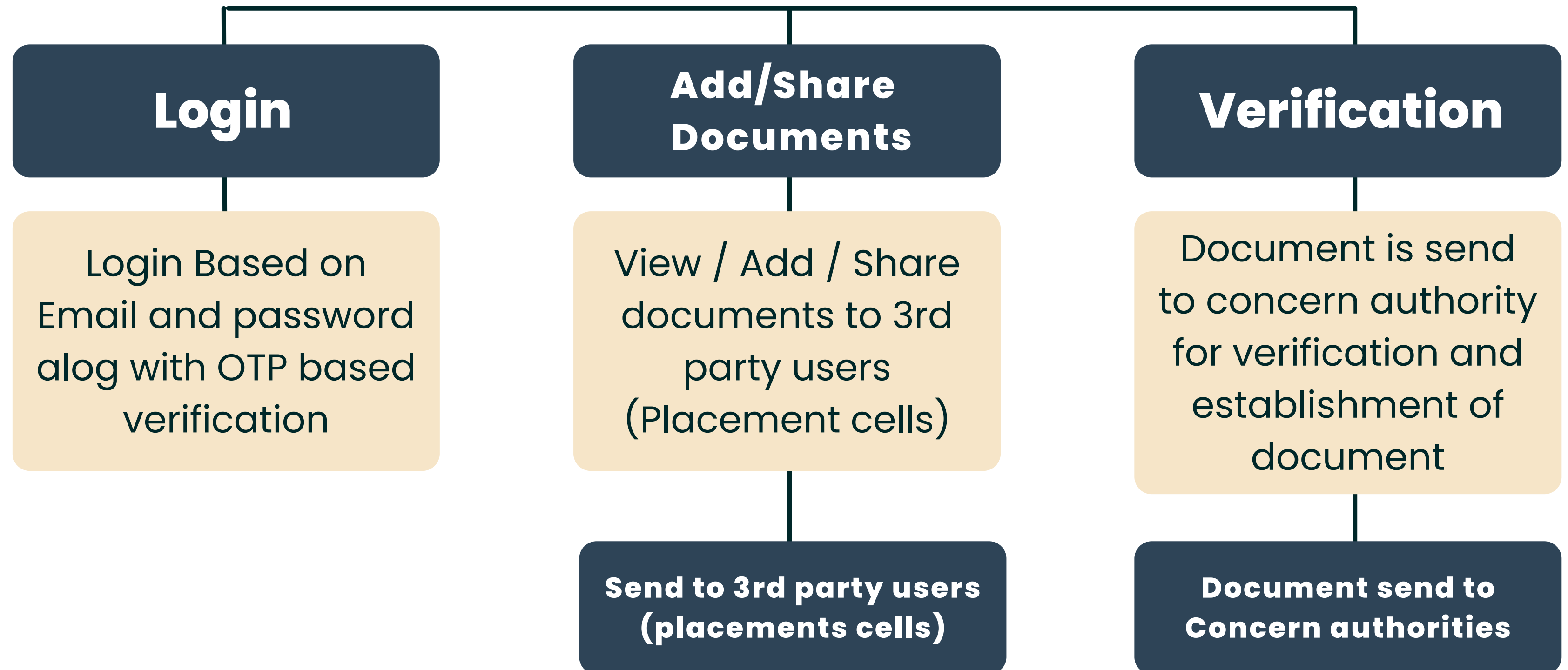
SR. No.	Title & Authors	Conference/ Journal Name and Publication Year	Advantages	Disadvantages
4	A Study on a JWT-Based User Authentication and API Assessment Scheme Using IMEI in a Smart Home Environment N. Hong, M. Kim, M. Jun and J. Kang	MDPI journals - 2017	This helps us to authenticate and verify 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.

# System Architecture



# Module Wise Algorithm

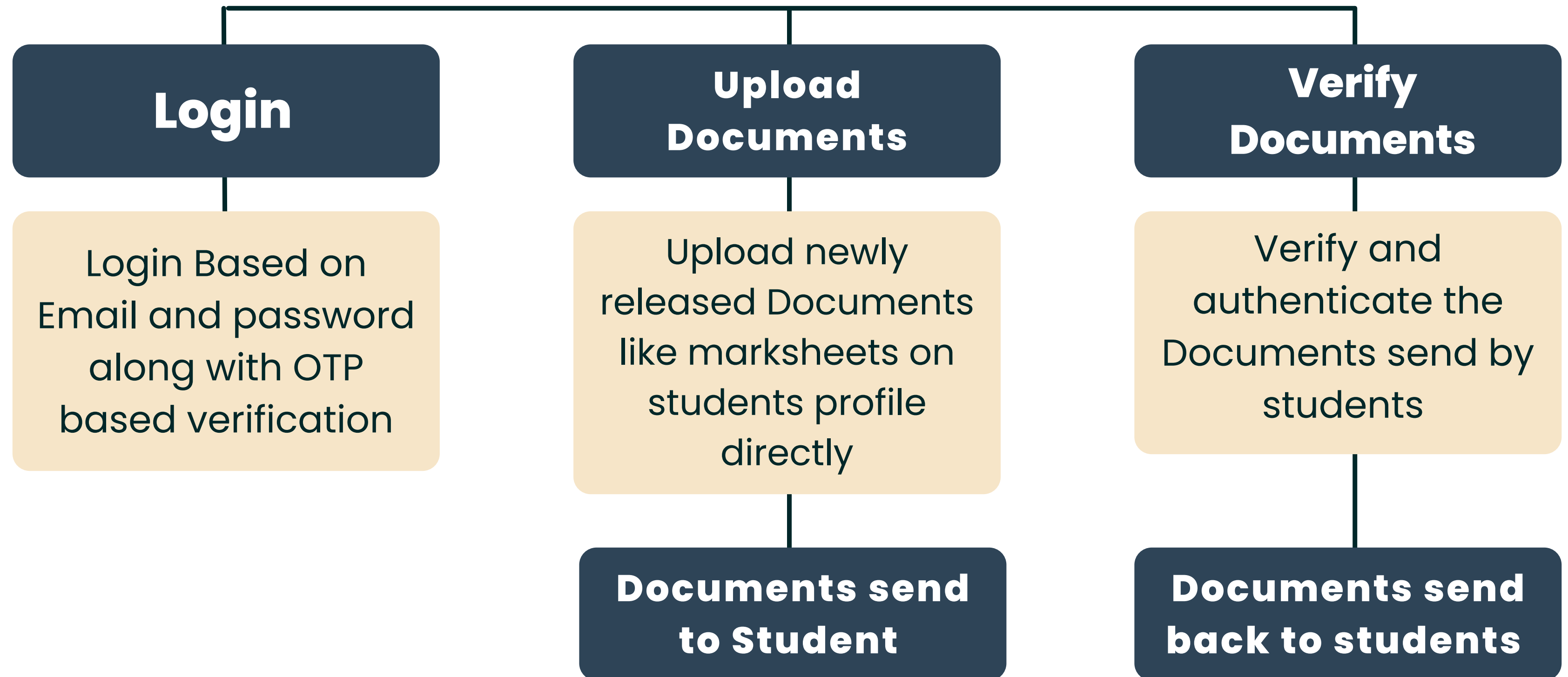
## Student Module





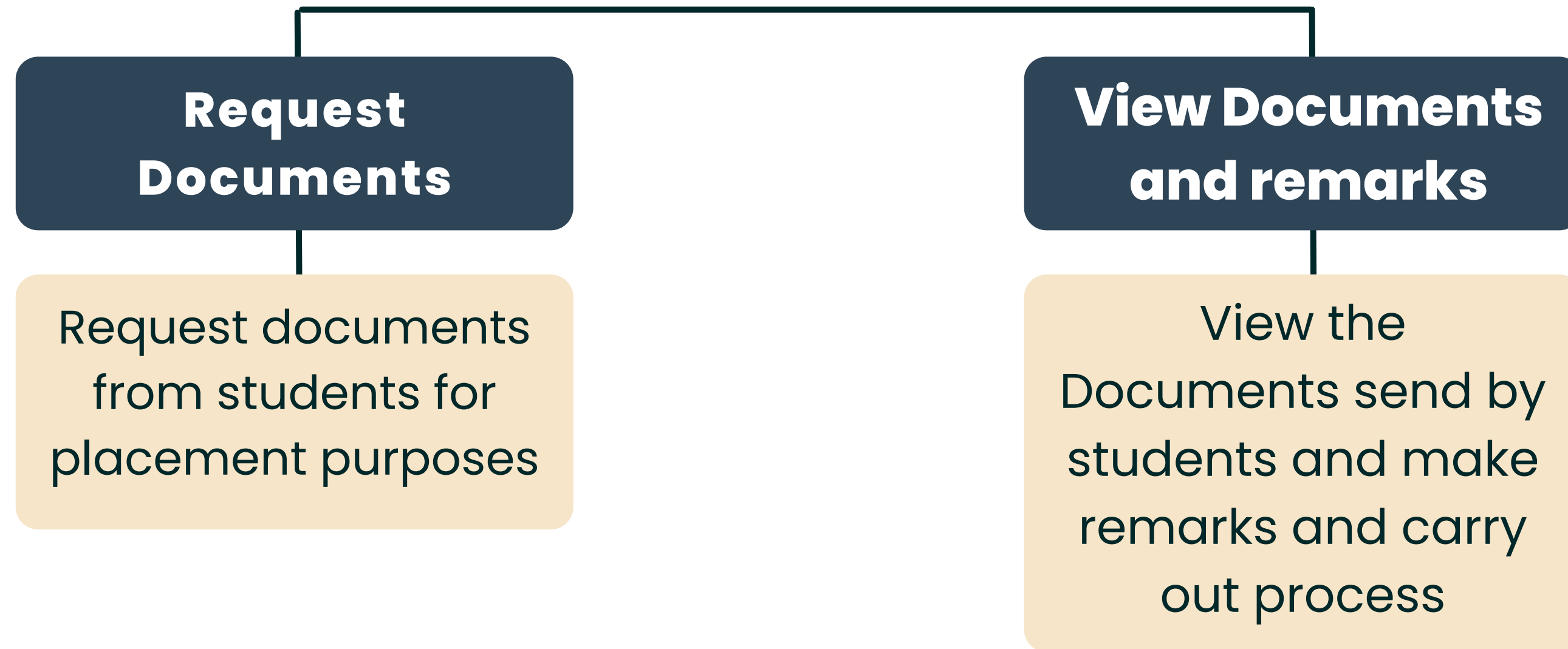
# Module Wise Algorithm

## Concern Authorities (College Admin)

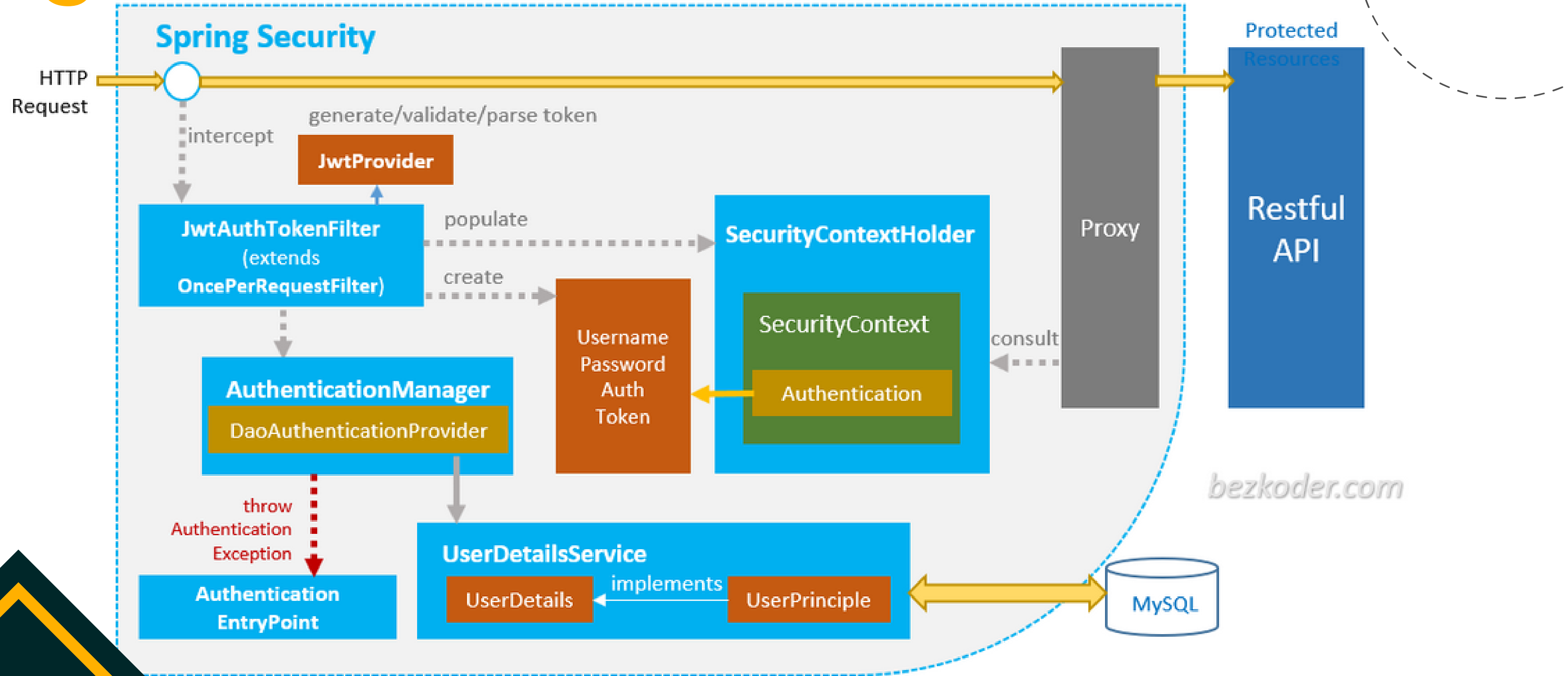


# Module Wise Algorithm

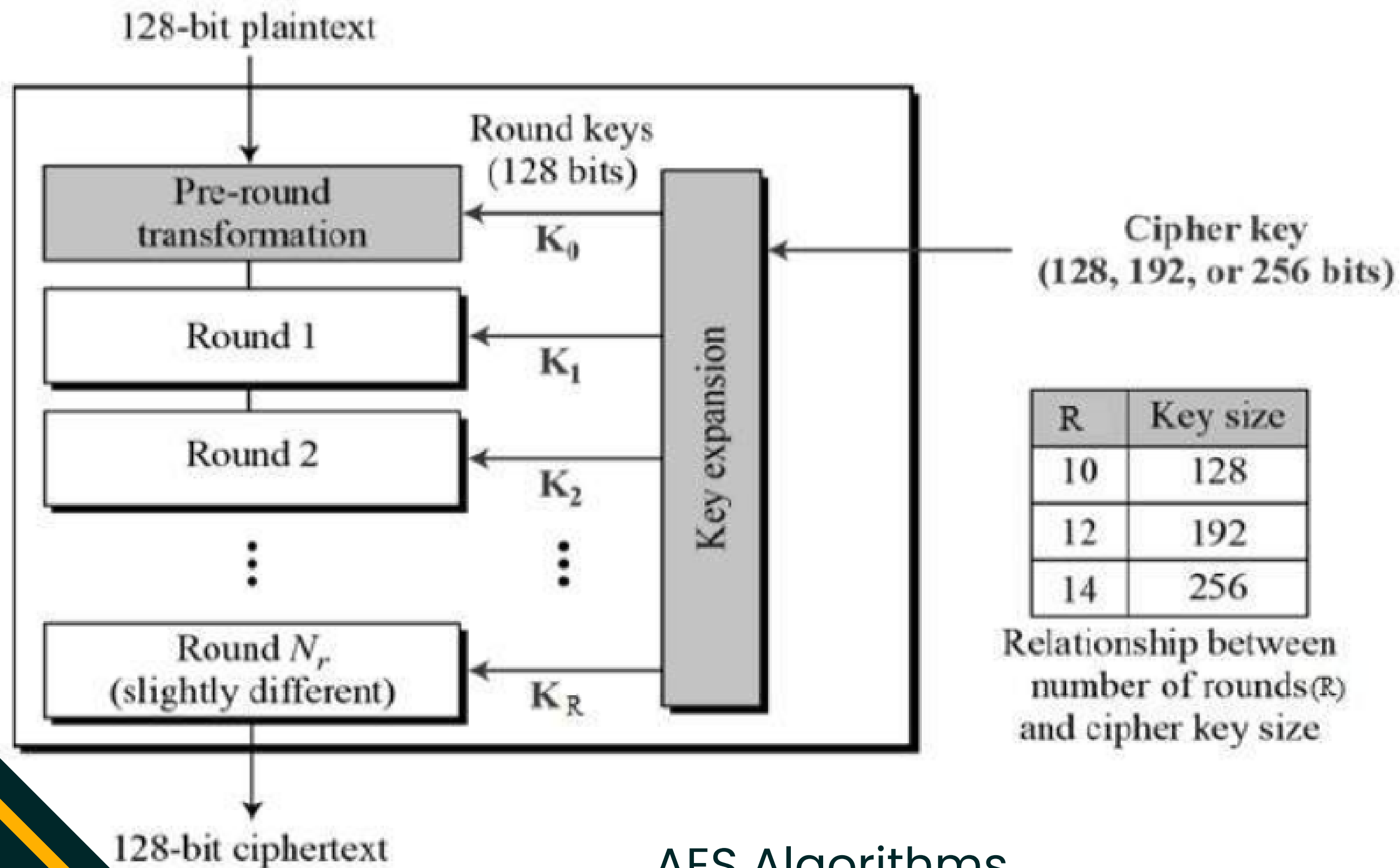
## 3rd party Users (Placement Cell/ Companies)



# Algorithms



# Algorithms



AES Algorithms

# Testing and Results

ID	username	Pass	Role	Authentication	OTP	Expiry	Email	Status
1	Rey	\$2a\$10\$h9rCnfw9ftgE aMeaPjrbyOB1APQZ73 6vFRrfU0W.WbaWMFV M1k55e	ROLE_staff	1	825835	2021-12-22 11:05 ;23	shreyaparamne@gmail.com	1
2	Reya	\$2a\$10\$mYS4epM3dN gFBtGDd.q/He5p1fqw eDoINJnCKoZOHsPNe WqZSi8PK	ROLE_admin	1	728382	2021-12-19 12:05 ;23	hefshinessoftwares@gmail.com	1
3	Ankan	\$2a\$10\$h9rCnfw9ftgE aMeaPjrbyOB1APQZ73 6vFRrfU0W.WbaWMFV M1k55e	ROLE_stu	0	019828	2021-12-20 11:05 ;23	ankan.rana@gmail.com	1

# Conclusions & Future Scope

## Conclusion

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.  
Adding more modules to store all kinds of documents at one single location.

# The Team

## Team members

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## Guide

**Prof. Mrs. Deepali Rane**

Internal Guide

**Prof. Mrs. Vrushali Uttawar**

Internal Co-Guide

Thank you