TABLE OF CONTENTS

ABSTRACT

The plagiarism is a widespread and one of the growing problems in the internet. The problem of plagiarism has caused problems for individuals and corporates on levels unexpected.

The traditional manual detection of plagiarism by humans is a tedious task, inaccurate, and time-consuming process. This project, Plagiarism Terminator aims at creating an online, free to use web- based plagiarism-detection system that can help to find plagiarism.

We hope to solve the problem of plagiarism through this project and thus make our contribution to help the society face such expensive and common day to day issue.

LIST OF FIGURES

LIST OF ABBREVIATIONS

WBS	WORK BREAKDOWN STRUCTURE
ER	ENTITY RELATIONSHIP
RMMM	RISK MITIGIATION MONITORING MANAGEMENT
DFD	DATA FLOW DIAGRAM
SWOT	STRENGTH WEAKNESS OPPORTUNITIES THREATS
CAPEX	CAPITAL EXPENDITURE
OPEX	OPERATIONAL EXPENDITURE
GANTT	GENERALIZED ACTIVITY NORMALIZATION TIME TABLE
UI	USER INTERFACE
UX	USER EXPERIENCE

DEPT. Of NWC

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	1
Title of Experiment	To identify the Software Project, Create Business Case, Arrive at a Problem Statement
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Number	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	17-03-2022

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

Aim

To Frame a project team, analyze and identify a Software project. To create a business case and Arrive at a Problem Statement for the <title of the project>

Team Members:

Sl No	Register No	Name	Role
1	RA2011030010052	Aditya A R	Lead
2	RA2011030010031	Adhin Jibil	Member
3	RA2011030010044	S Shanthosh Sivan	Member

Project Title: Plagiarism Terminator

Project Description

BUSINESS CASE

DATE	17-03-2022
SUBMITTED BY	Aditya A R, Adhin Jibil, Shanthosh Sivan
TITLE	Plagiarism Terminator

THE PROJECT

- Plagiarism is a widespread issue that has caused trouble at various levels, from corporates to schools.
- A check on plagiarism before publicizing the work helps from getting into deep troubles.
- This project aims to help people in various fields to check any work for plagiarism and make necessary changes if needed.

THE HISTORY

- The internet has a few websites that offer the services of checking for plagiarism like 'Grammarly' and 'Dupli Checker'
- Most of these websites are either not quite efficient or are paid applications.

LIMITATIONS

- Lack of special training

APPROACH

Skills in computing languages:
- Python
- HTML
- CSS
- JavaScript

BENEFITS

- This project can avoid potential copyright infringement cases by comparing the work with other publications and void all the plagiarism.
- It can also help find if a work is a copy of another and what part of it has been copied.

Result

Thus, the project team was formed, the project is described, the business case was prepared and the problem statement was arrived.

SRM INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)

Department of Networking and Communications

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	2
Title of Experiment	Identification of Process Methodology and Stakeholder Description
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Number	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	24/03/22

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

Aim

To identify the appropriate Process Model for the project and prepare Stakeholder and User Description.

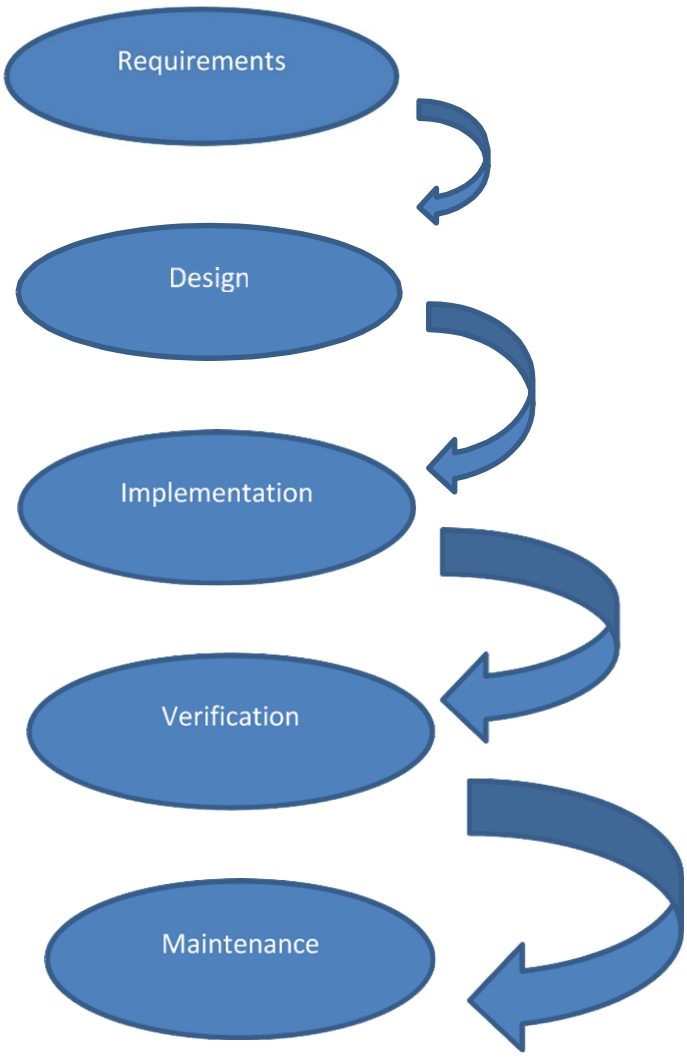
Team Members:

Sl No	Register No	Name	Role
1	RA2011030010052	Aditya A R	Rep/Member
2	RA2011030010031	Adhin Jibil	Member
3	RA2011030010044	Shanthosh Sivan	Member

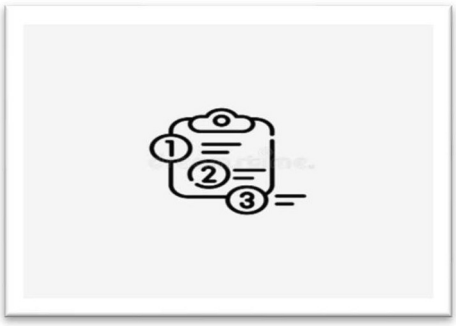
Project Title:

Selection of Methodology

- **Waterfall Methodology**

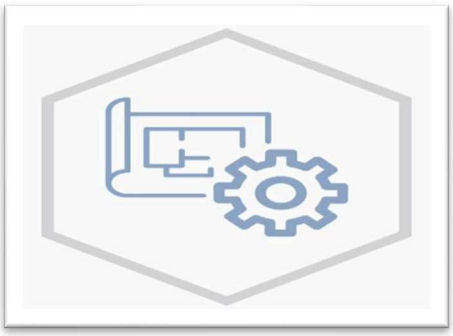


Requirements:



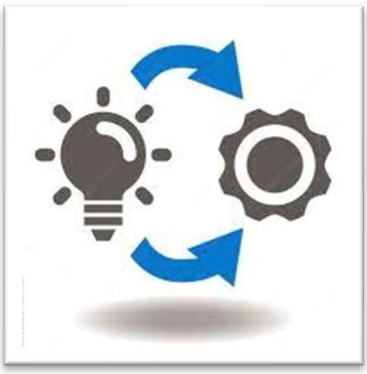
ll possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.

System Design:



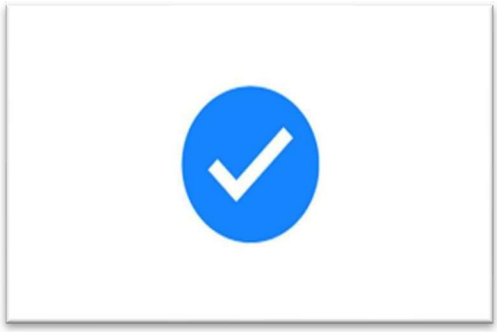
	Minimum	Recommended
Processor	1.5 GHz	2.5 GHz
Memory (RAM)	2 GB	4 GB
Available disk storage	50 MB	100 MB
Available disk storage	4.5.1	4.7.1
Internet Connection	512 Kbps	1 Mbps

Implementation:



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

Verification:



All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.

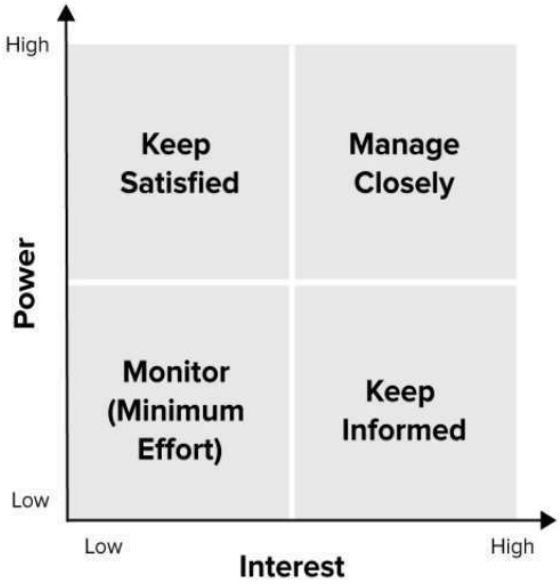
Maintenance:

There are some issues which 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.

Incorporate information to below table regarding stakeholders of the project [Make use of below examples]

Stakeholder Name	Activity/ Area /Phase	Interest	Influence	Priority (High/ Medium/ Low)
Owner	Accomplish targets	High	High	1
Web Developer	Programming	High	High	2
Pen Tester	Testing	Med	Med	3
Project Manager	Planning and Organizing	High	Med	2
End User	User	Low	Med	3

Figure 1: Power/Interest Grid for Stakeholder Prioritization



Result

Thus the Project Methodology was identified and the stakeholders were described.

Department Of Networking and Communications

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	3
Title of Experiment	System, Functional and Non-Functional Requirements of the Project
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Number	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	30.3.2022

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

Aim

To identify the system, functional and non-functional requirements for the project.

Team Members:

S No	Register No	Name	Role
1	RA2011030010052	Aditya A R	Rep/Member
2	RA2011030010031	Adhin Jibil	Member
3	RA2011030010044	Shanthosh Sivan S	Member

Project Title: Plagiarism Terminator

System Requirements

- OS: Windows 8 or later/macOS Sierra 10.12 or later/ 64-bit Ubuntu 14.04+, Android or iOS.
- Processor: Intel, Snapdragon
- Memory: 2 GB minimum, 4 GB recommended
- Internet connection
- Any Web Browser – Chrome, Safari, Firefox, etc..,

Functional Requirements

- Easy to use UI
- Accessible on various devices
- Capable for repeated usage
- Ability to compare one document with several other documents.

Non-Functional Requirements

- Reliability
- Speed in processing
- High Availability

Result

Thus the requirements were identified and accordingly described.

SRM INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)

Department of Networking and Communications

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	4
Title of Experiment	Prepare Project Plan based on scope, Calculate Project effort based on resources and Job roles and responsibilities
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Number	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	6.4.2022

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

Aim

To Prepare Project Plan based on scope, Calculate Project effort based on resources, Find Job roles and responsibilities

Team Members:

Sl No	Register No	Name	Role
1	RA2011030010052	Aditya A R	Rep/Member
2	RA2011030010031	Adhin Jibil	Member
3	RA2011030010044	Shanthosh Sivan S	Member

1. Project Management Plan

Schedule Management:

1) Defining Milestones

To develop front-end of the website	7 days
To develop back-end of the website	7 days
To integrate the font-end and back-end	2 days
To design UI/UX for the website	5 days
To incorporate the UI in the website	5 days
To test the application and fix the flaws	7 days
Final rollout for customers	10 days

2) Schedule Control

- We have to regularly monitor the status of the task.
- If a task is not achieved within the timeframe extra deployment of the workforce may be required in such scenarios.
- We have to update schedules in order to achieve the timeline goals.

Stakeholders :

Stakeholder Name	Activity/ Area /Phase	Interest	Influence	Priority (High/ Medium/ Low)
Owner	Accomplish targets	High	High	1
Web Developer	Programming	Med	High	3
Tester	Testing	Med	High	2
Project Manager	Planning and Organizing	High	Med	2
End User	User	Med	Med	1

Cost Management :

2. Estimation

2.1. Effort and Cost Estimation

Activity Description	Sub-Task	Sub-Task Description	Effort (in hours)	Cost in INR
Frontend Development	E1R1A1T1 (Effort-Requirement-Activity-Task)	Designing the UI	4	2000
	E1R1A1T2	interactive and user friendly interface	2	1000
Backend Development	E1R1A1T3	Dynamic Code according to the need, implemented in any language	8	4000
Marketing	E3RA3T1	Finding potential investors	5	2500
Project Coordination	E4R4A4T1	Coordinating team members and ensuring smooth workflow	10	5000

Effort (hr)	Cost (INR)
1	500

2.2. Infrastructure/Resource Cost [CapEx]

< OneTime Infra requirements >

Infrastructure Requirement	Qty	Cost per qty	Cost per item
Workplace	1	100000	100000
Pc's	4	60000	240000
Wifi	1	3500	3500
server	1	75000	75000

2.3 Maintenance and Support Cost [OpEx]

Category	Details	Qty	Cost per qty per annum	Cost per item
People	Network, System, Middleware. Developer , Tester	3	2,000,000	6,000,000
License	Operating System Database Middleware IDE	10	10000	100,000
Infrastructures	Server, Storage and Network	10	10000	200,000

3. Project Team Formation

3.1 Identification Team members

Name	Role	Responsibilities
Aditya	Key Business User (Product Owner)	Provide clear business and user requirements
Shanthosh	~~Project Manager~~	~~Manage the project~~
Adhin	~~Business Analyst~~	~~Discuss and Document Requirements~~
Aditya	~~Technical Lead~~	~~Design the end-to-end architecture~~
Adhin	~~UX Designer~~	~~Design the user experience~~
Adhin	~~Frontend Developer~~	~~Develop user interface~~
Aditya, Shanthosh	Backend Developer	Design, Develop and Unit Test Services/API/DB
Shanthosh	Tester	Define Test Cases and Perform Testing

3.2. Responsibility Assignment Matrix

RACI Matrix	Team Members			
Activity	**Name (BA)**	**Name (Developer)**	**Name (Project Manager)**	**Key Business User**
User Requirement Documentation	A	C/I	I	R
	Aditya	All the members	Shanthosh Sivan	Adhin

A	Accountable
R	Responsible
C	Consult
I	Inform

Result:

Thus, the Project Plan was documented successfully.

SRM INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)

Department of Networking and Communications

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	5
Title of Experiment	Prepare Work breakdown structure, Timeline chart, Risk identification table
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Number	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	13 .4.2022

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

Aim

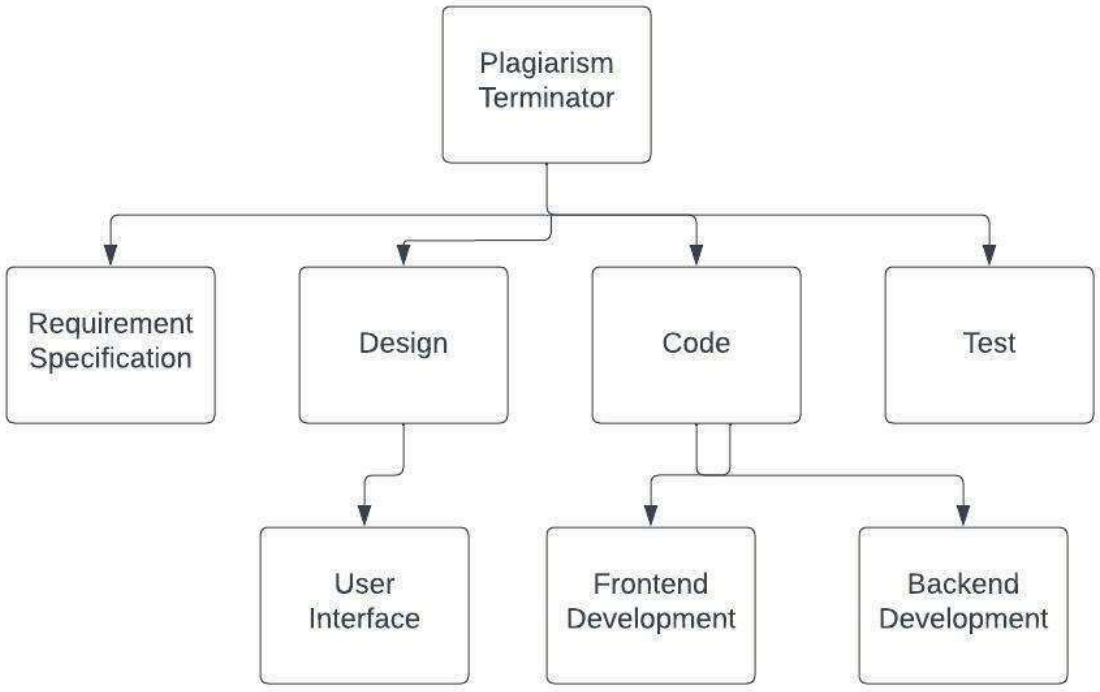
To Prepare Work breakdown structure, Timeline chart and Risk identification table

Team Members:

Sl No	Register No	Name	Role
1	RA2011030010052	Aditya A R	Rep
2	RA2011030010031	Adhin Jibil X	Member
3	RA2011030010044	Shanthosh Sivan S	Member

<Incorporate WBS, Timeline chart and Risk table>

Work Breakdown Structure :



GANTT CHART

Risk Table:

Risk summary	**Risk probability (%)**	**Mitigation**
System malfunction	25%	Periodic maintenance and testing and preparing the damaged part
Member absence	10%	Schedule and work accordingly
Communication problem between members	20%	Perform timely meetings ,good communication
Loss of Data	20%	Backup
Unexpected results	5%	Perform requirement analysis carefully right from the beginning

Result:

Thus, the work breakdown structure with timeline chart and risk table were formulated successfully.

SRM INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	6
Title of Experiment	Design a System Architecture, Use Case and Class Diagram
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Number	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	20.04.22

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

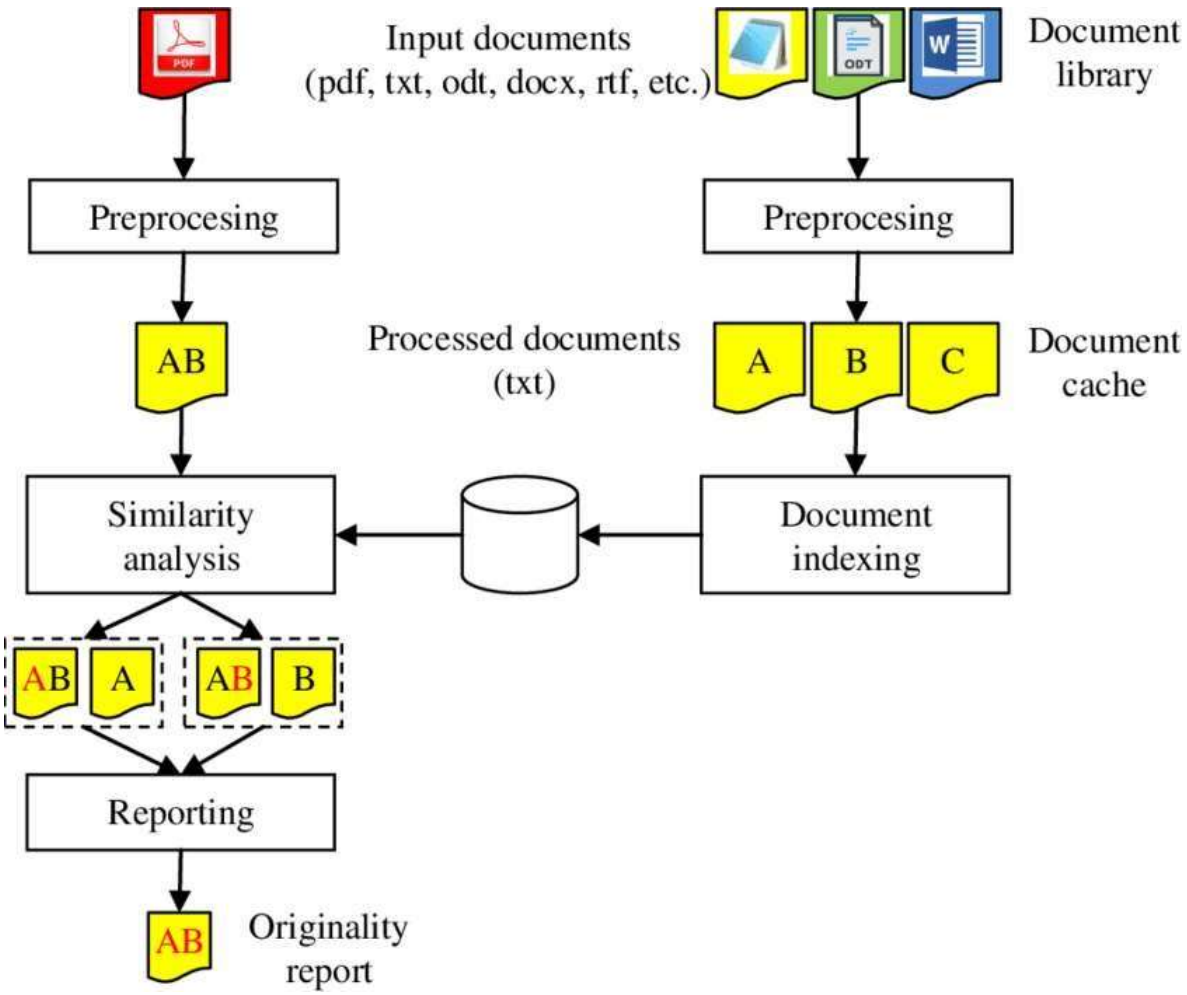
Aim

To Design a System Architecture, Use case and Class Diagram

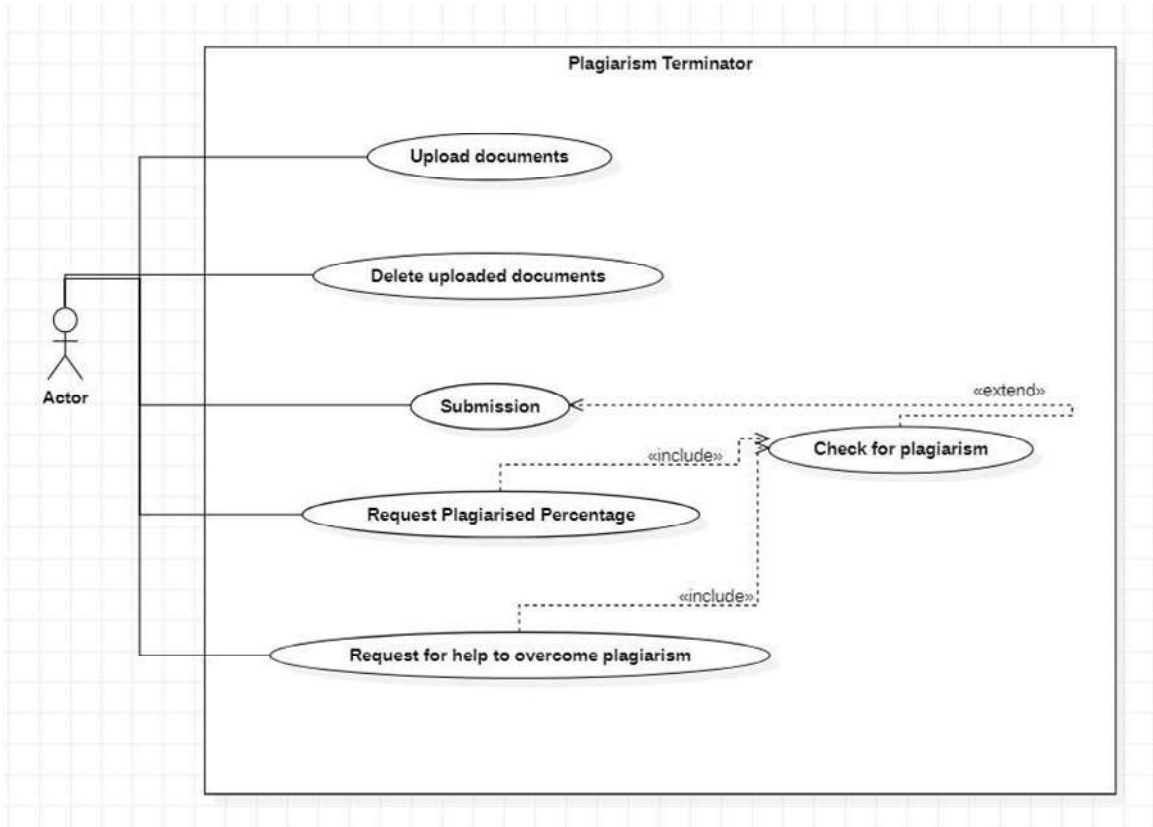
Team Members:

Sl No	Register No	Name	Role
1	RA2011030010052	Aditya A R	Rep
2	RA2011030010031	Adhin Jibil X	Member
3	RA2011030010044	Shanthosh Sivan S	Member

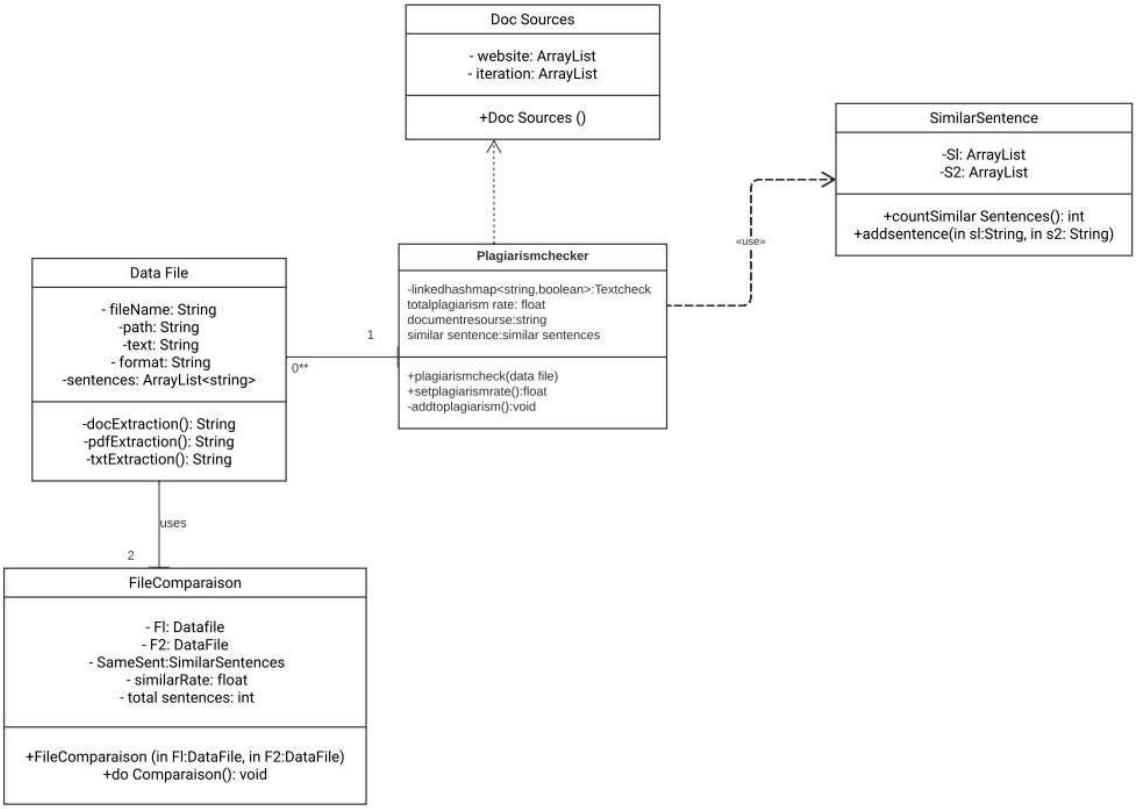
SYSTEM ARCHITECTURE



USE CASE DIAGRAM



CLASS DIAGRAM



Result:

Thus, the system architecture, use case and class diagram created successfully.

SRM INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	7
Title of Experiment	Design a Entity relationship diagram
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Number	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	4.5.2022

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

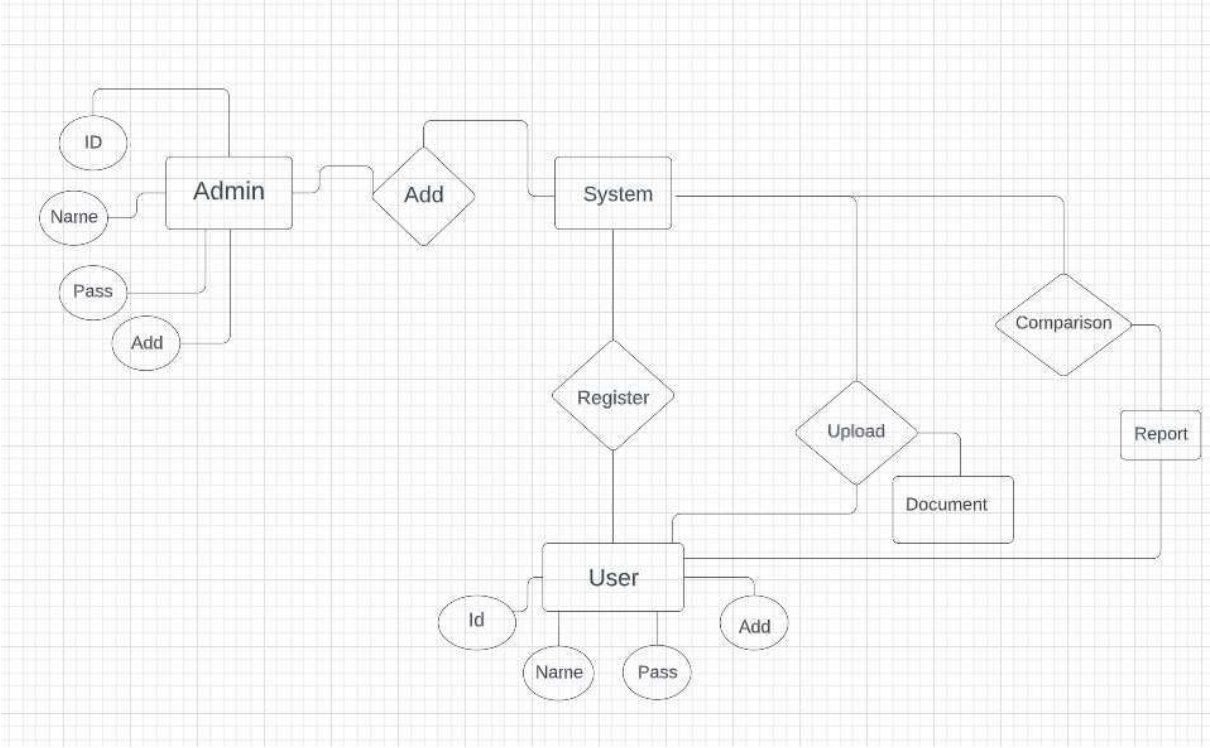
Aim

To create the Entity Relationship Diagram

Team Members:

S No	Register No	Name	Role
1	RA2011030010052	Aditya A R	Rep
2	RA2011030010031	Adhin Jibil X	Member
3	RA2011030010044	Shanthosh Sivan S	Member

<ER Diagram >



Result:

Thus, the entity-relationship diagram was created successfully.

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	8
Title of Experiment	Develop a Data Flow Diagram (Process-Up to Level 1)
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Number	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	11.5.2022

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

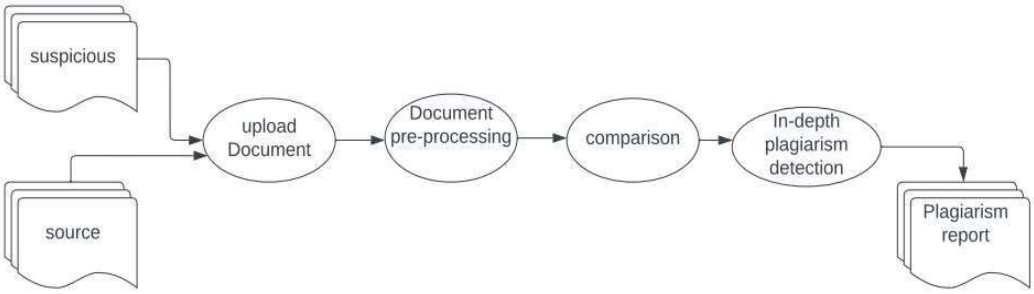
Staff Signature with date

Aim

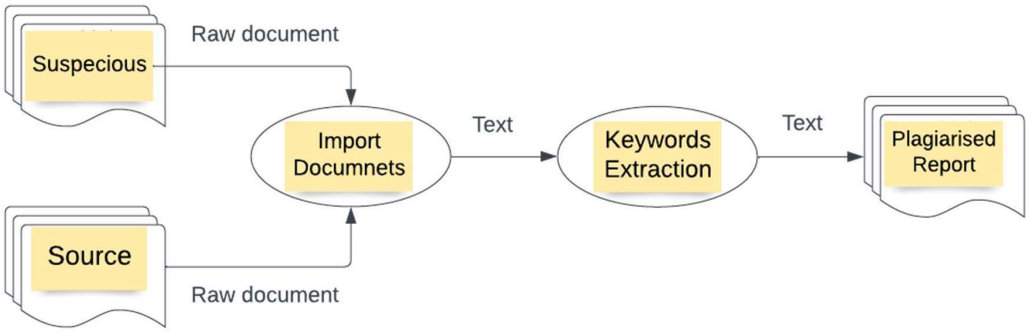
develop the data flow diagram up to level 1 for the <project name>

S No	Register No	Name	Role
1	RA2011030010052	Aditya A R	Rep
2	RA2011030010031	Adhin Jibil X	Member
3	RA2011030010044	Shanthosh Sivan S	Member

DFD Level 0:



DFD Level 1:



Result:

Thus, the data flow diagrams have been created for the Plagiarism Terminator.

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	9
Title of Experiment	Design a Sequence and Collaboration Diagram
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Number	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	18.05.22

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

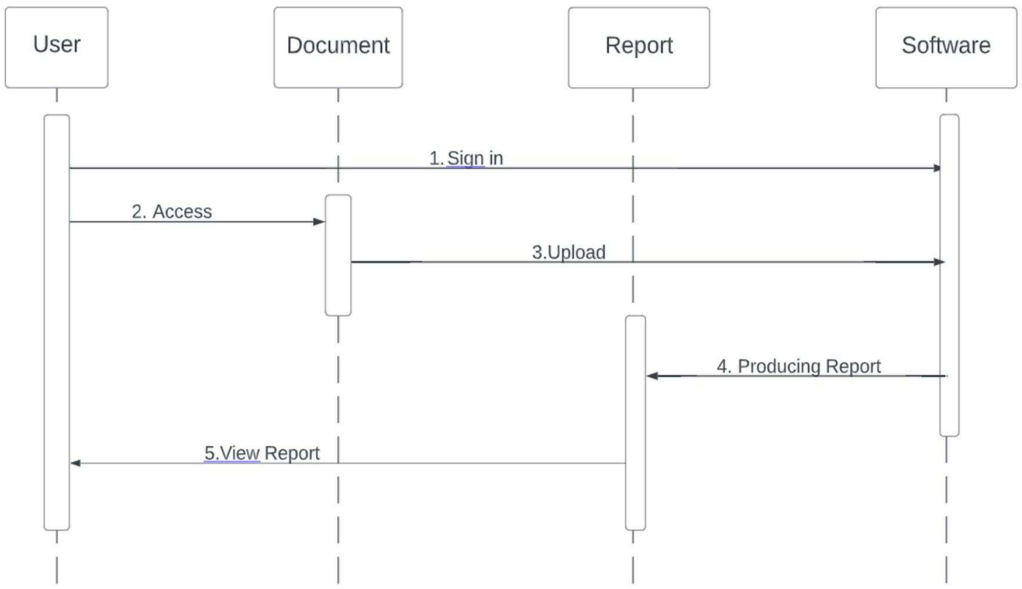
Aim

To create the sequence and collaboration diagram for the <project name>

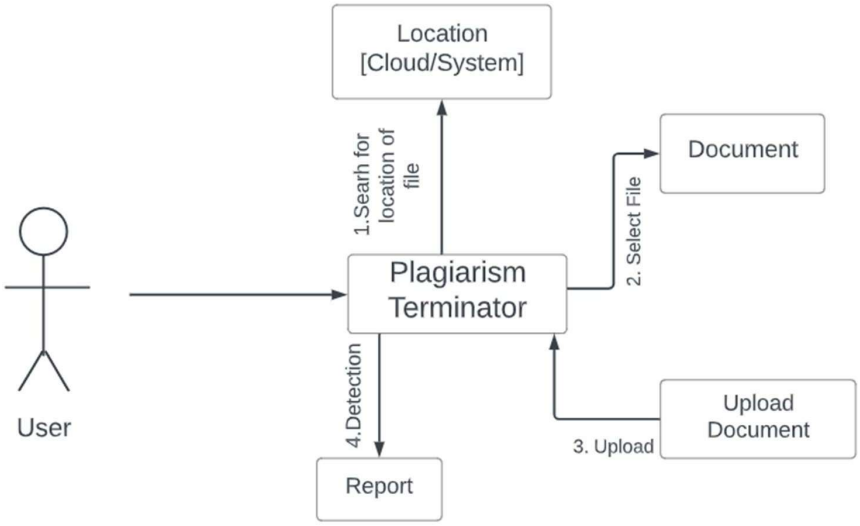
Team Members:

S No	Register No	Name	Role
1	RA2011030010052	Aditya A R	Rep/Member
2	RA2011030010044	Shanthosh Sivan	Member
3	RA2011030010031	Adhin Jibil	Member

Sequence Diagram



Collaboration Diagram



Result:

Thus, the sequence and collaboration diagrams were created for the Plagiarism Terminator project.

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	10
Title of Experiment	Develop a Testing Framework/User Interface
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Number	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	25.05.22

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

Aim

To develop the testing framework and/or user interface framework for the Plagiarism Terminator.

Team Members:

S No	Register No	Name	Role
1	**RA2011030010052**	Aditya A R	**Rep/Member**
2	**RA2011030010031**	Adhin JIbil X	**Member**
3	**RA2011030010044**	Shanthosh Sivan S	**Member**

<Incorporate the necessary information regarding testing/user interface of the project>

Executive Summary

Testing Framework

*Precision

*Granularity

* Plagdet

Test Plan

Precision: this is the fraction of the documents retrieved that are relevant to the user information needs.

Granularity: This measure was introduced to take care of overlapping or multiple detections for a single plagiarism case.

Plagdet: The overall score which comprises of the three measure was obtained

Scope of Testing

coverage: How much of the known plagiarism was found? How did the system deal with the original text?

usability: How smooth was the testing process itself? How understandable are the reports? How expensive is the system? Other usability aspects

Functional:

Test Area	Input	Testing Method	Tools
Document upload	File	Automated Tools	FUSE- Finding File Upload Bugs via Penetration Testing
Report Generation	Plagiarism test report	Automated tools	TestProject
Report Delivery	Plagiarism Report	Automated tools	TestProject

Non-Functional:

Test Area	Input	Testing Method	Tools
User Login	Login username and password	Automated Tools	BrowserStack
User Interface	Functional Requirements	Manual	Figma

Result:

Thus, the testing framework/user interface framework has been created for the Plagiarism Checker.

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	11
Title of Experiment	Test Cases & Manual Test Case Reporting
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Number	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	01.06.22

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

Aim

To develop the test cases and manual test case reporting for the Plagiarism Terminator.

Team Members:

S No	Register No	Name	Role
1	RA2011030010052	**Aditya A R**	**Rep**
2	RA2011030010031	**Adhin Jibil X**	**Member**
3	RA2011030010044	**Shanthosh Sivan S**	**Member**

Functional Test Cases

Test ID	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1	Document Upload	Valid format, file size	1.select the file 2.upload the file	Document is being verified	Document is being verified	Pass	Success
2	Document Upload	Large File Size	Document Upload Failed	Error Message	Error Message	Fail	Failure
3	Check The Plagiarism Detection	Plagiarised report	Plagiarism is detected	View Plagiarism Report	View Plagiarism Report	Pass	Success

Non-Functional Test Cases

Test ID	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1	Verify User Registration	Provide appropriate Valid credentials	1. User Login 2. Enters into the home page	User should be taken to the next page for uploading documents	User should be taken to the next page for uploading documents	Pass	Success
2	Verify User Registration	Invalid credentials	Login fails	Error Message	Error Message	Fail	Failure
3	Easy to understand and operate user interface	Usable buttons and lists	Usage of buttons and selection lists in place of fields where user needs to type in data	Easy to understand and less effort to enter data	Easy to understand and less effort to enter data	Pass	Success

Category	Progress Against Plan	Status
Functional Testing	Green	Completed
Non-Functional Testing	Amber	In-Progress

Functional	Test Case Coverage (%)	Status
User Login	10%	Completed
Document Selection	30%	Completed
Verification	30%	Completed
Plagiarism Report	30%	Completed

Result:

Thus, the test case and manual test case reporting has been created for the Plagiarism Terminator.

School of Computing

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	12
Title of Experiment	Provide the details of Architecture Design/Framework/Implementation
Name of the candidate	Shanthosh Sivan S
Team Members	Aditya AR, Adhin JIbil X
Register Numbers	RA2011030010044, RA2011030010052, RA2011030010031
Date of Experiment	08.06.22

Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

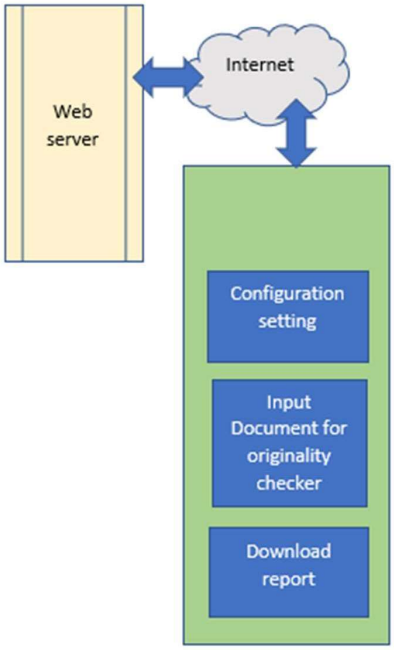
Aim

To provide the details of architectural design/framework/implementation

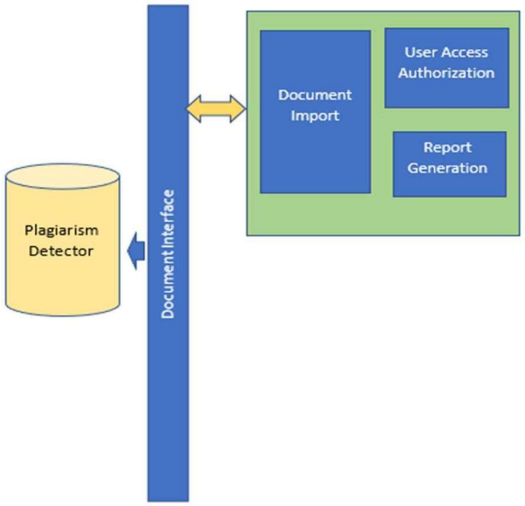
Team Members:

S No	Register No	Name	Role
1	RA2011030010052	Aditya A R	Rep/Member
2	RA2011030010044	Shanthosh Sivan S	Member
3	RA2011030010031	Adhin Jibil X	Member

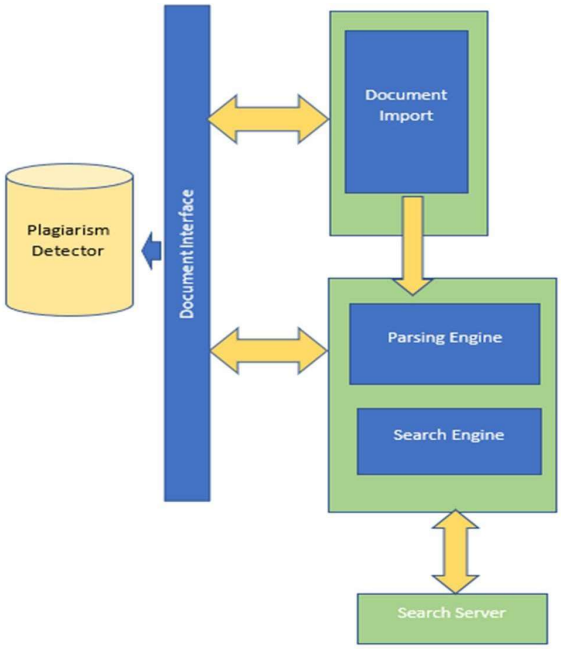
User-Website Interface



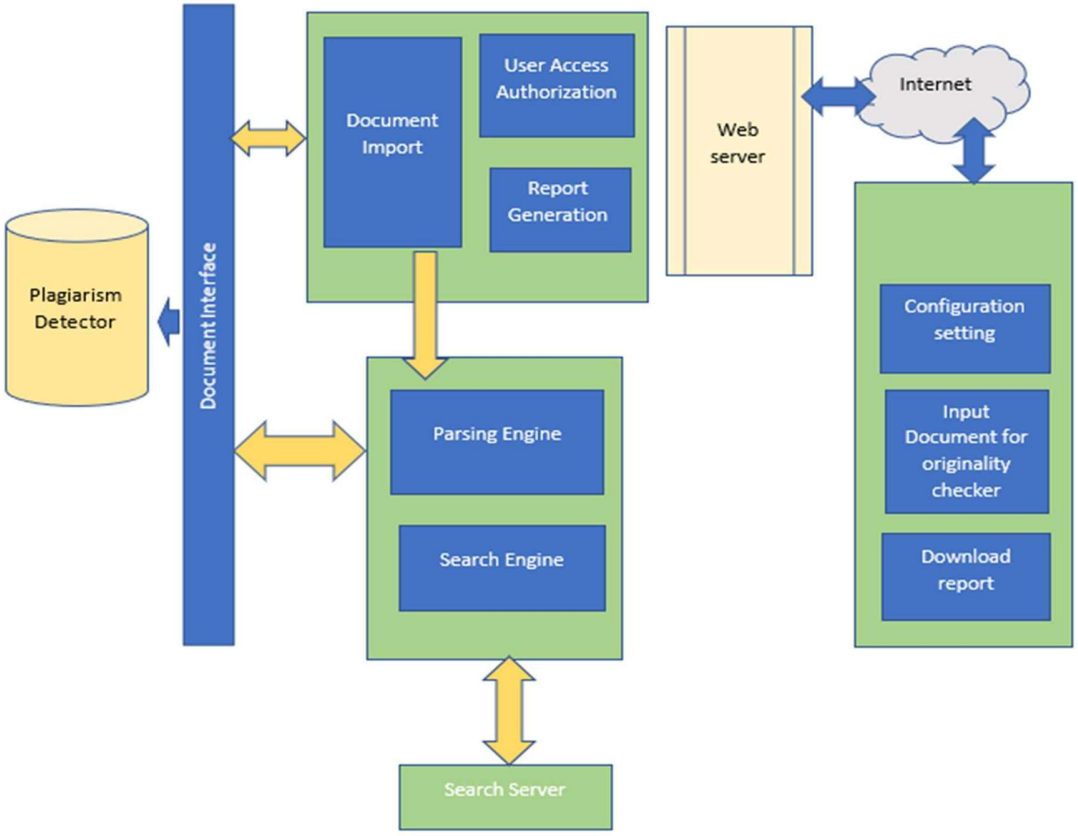
Website - Server Interface



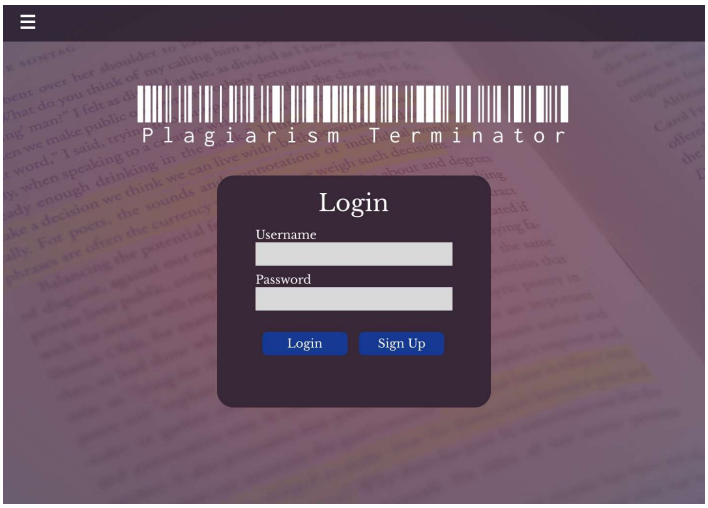
Server-Database Interface

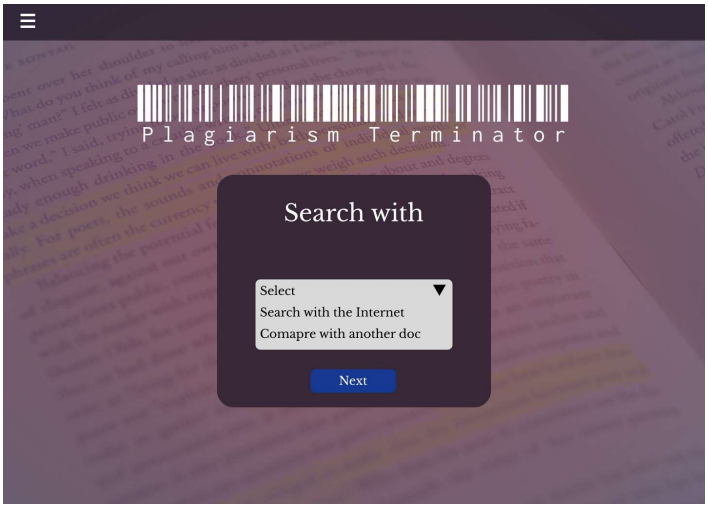


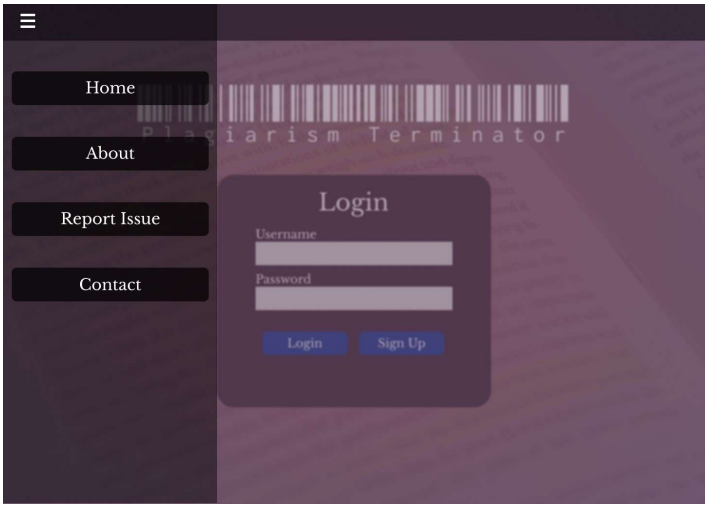
Complete Architecture of the application

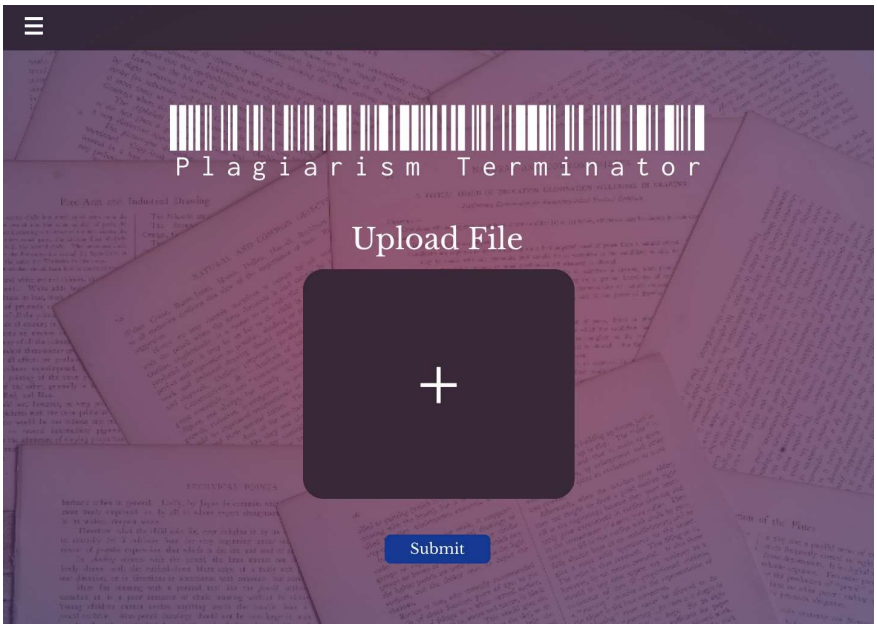


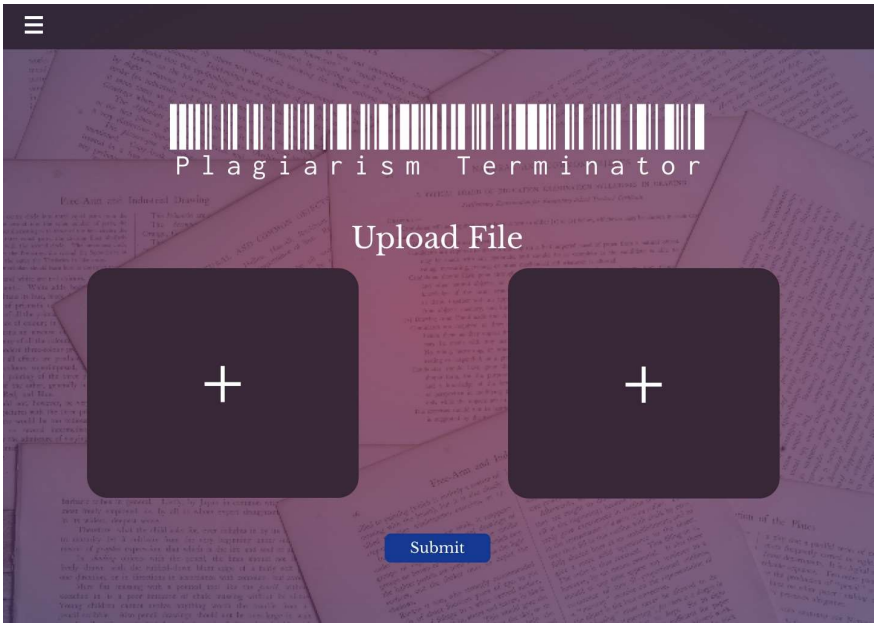
Implementation

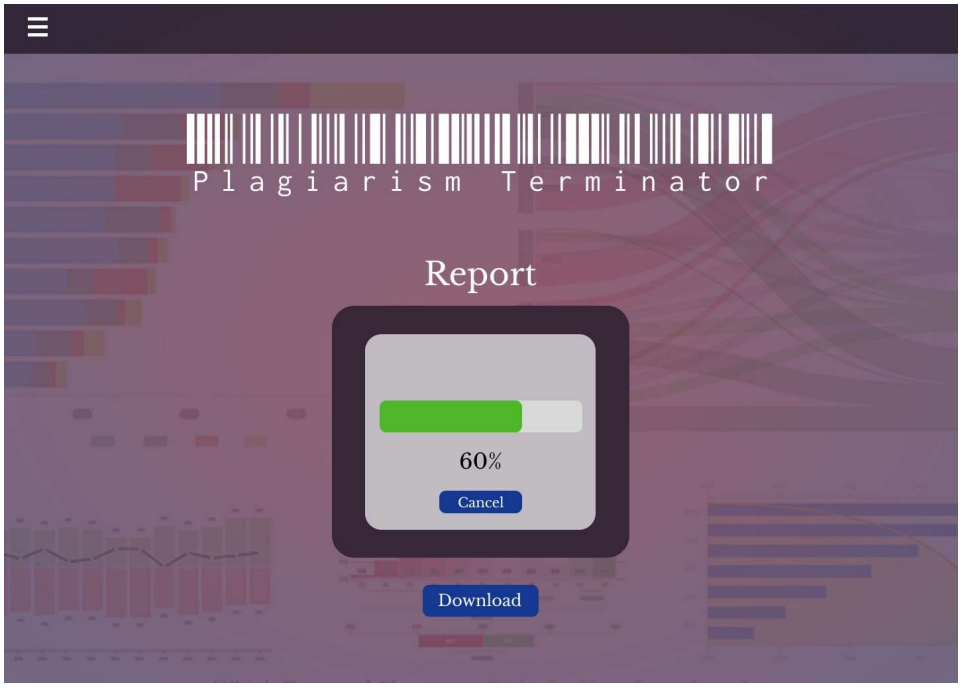







Plagiarism Terminator
Upload File
+
Submit


Plagiarism Terminator
Upload File
+
+
Submit



Result:

Thus, the details of architectural design/framework/implementation along with the screenshots were provided.

Conclusion

Plagiarism of text has become a common occurrence today with difficult to detect forms such as paraphrasing and summarizing being frequently practiced. Hence, there is a need to design effective mechanisms for automatic plagiarism detection. It is described how plagiarism can be detected through the automation of passing text to search engines and get results, which opens the door to a free, precise and efficient plagiarism detection methodology, although the project is in its initial phases, experiment results show how promising this approach can be if it is extended to consider full text in its search process.

References

[1] Build a Plagiarism Checker Using Machine Learning | by Tyler Hawkins | Towards Data Science

[2] https://en.wikipedia.org/wiki/Content_similarity_detection

[3] https://w3lessons.info/gp/how-to-develop-a-plagiarism-detection-and-text-analysis-software

[4] PLAGIARISM DETECTIONSYSTEM Documentation, by Md. Feroz Ahmmed and Asif Imran, Lecturer, Institute of Information Technology, University of Dhaka.

[5] Pressman, Roger S. Software Engineering: A Practitioner's Approach (7th Edition)