BANNARI AMMAN
INSTITUTE OF TECHNOLOGY
An Autonomous Institution, Affiliated to Anna University,
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FULL STACK PROJECT

Student Name: ARUNJOTHI V

Roll No: 7376221CS117

Seat No: 365

Project ID: 33

Project Title: APEX AUTOMATION

(Apex apply to approval)

Technical Components

Component	Tech Stack
Front End	**HTML, CSS, JS**
Back End	**Python, Django (Python Web)**
Database	**PostgreSQL, MySQL**
API	**Open API, SOAP APIs, REST Full API**

Implementation Timeline

Phase	Report Date	Status	Notes
Stage 1	**25.07.2024**	**completed**	Planning and Requirement Gathering
Stage 2			Design and Prototyping
Stage 3			DB Designing
Stage 4			Backend Implementation
Stage 5			Testing & Implementation
Stage 6			

Problem Statement:

Implement an Apex Trigger to Automatically Apply Approval Process for High-Value Opportunities.

Objective:

The goal is to automate the approval process for requests based on the amount specified by the user. The system will ensure that requests are reviewed and approved by the appropriate authority based on the amount, providing a streamlined and efficient workflow.

Scope:

- ❖ Users submit requests with a specified amount and reason.
- ❖ Requests with an amount less than $5000 are directed to the Head of Department (HoD) for approval.
- ❖ Requests with an amount equal to or greater than $5000 are consolidated and sent to the Chairman for approval.

- ❖ The process includes appropriate decision points and logging to ensure traceability and accountability.

Process Steps:

1. **User Submission:**
   - ❖ Users enter the amount and reason for their request and submit it for approval.
2. **Amount Check:**
   - ❖ The system checks if the submitted amount is less than $5000.
   - ❖ If the amount is less than $5000, the request is sent to the HoD for approval.
   - ❖ If the amount is equal to or greater than $5000, the amount is consolidated, and the request is sent to the Chairman for approval.
3. **HoD Approval:**
   - ❖ If the amount is less than $5000, the HoD reviews the request.
   - ❖ If the HoD approves the request, it proceeds to the team review.
   - ❖ If the HoD does not approve the request, the process ends.
4. **Team Review:**
   - ❖ For requests approved by the HoD, the team conducts a final review before concluding the process.
5. **Chairman Approval:**
   - ❖ If the amount is equal to or greater than $5000, the Chairman reviews the consolidated request.
   - ❖ If the Chairman approves the request, a seal is provided.
   - ❖ If the Chairman does not approve the request, the process ends.
6. **Provide Seal:**

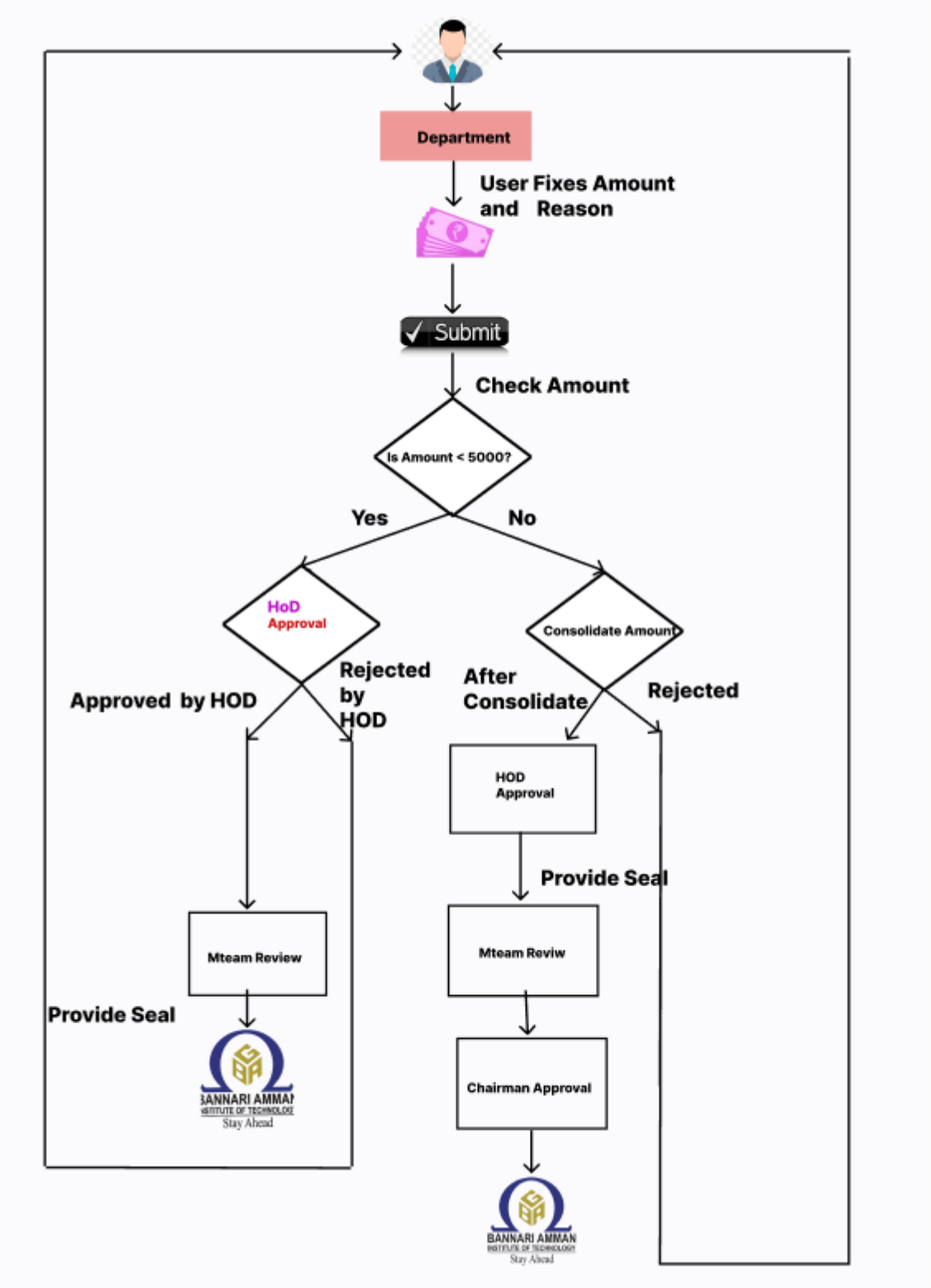
- ❖ Once the Chairman approves the request, the system provides a seal for the approved request, marking the completion of the process.

7. **Error Handling:**
   - ❖ The system includes error handling mechanisms to manage any issues that arise during the approval process.
   - ❖ Detailed logging of the request ID, amount, and the approval decision (success or failure) is implemented for troubleshooting and auditing purposes.
8. **Constraints:**
   - ❖ The project will strictly adhere to the specified requirements and will not include any additional functionality beyond the automatic approval process for high-value requests.
9. **Expected Outcome:**
   - ❖ A streamlined and efficient approval process that ensures high-value requests are reviewed by the appropriate authority.
   - ❖ Enhanced traceability and accountability through detailed logging and error handling mechanisms.
   - ❖ Improved workflow efficiency and reduced manual intervention in the approval process.

Detail Process:

1. **User Submits Request:** User inputs Name, Staff ID, Amount, and Reason, and submits the request.
2. **Amount Check:**
   - ❖ If Amount < 5000:
     - HOD validates the request.
     - If HOD approves, HOD provides a digital sign.
     - MTeam validates and provides the college seal.
   - ❖ If Amount > 5000:
     - The request is consolidated.
     - Chairman verifies the request and provides the chairman's seal.

Flow Chart


Department
User Fixes Amount and Reason
Submit
Check Amount
Is Amount < 5000?
Yes
No
HoD Approval
Consolidate Amount
Approved by HOD
Rejected by HOD
After Consolidate
Rejected
HOD Approval
Provide Seal
Mteam Review
Mteam Reviw
Provide Seal
Chairman Approval
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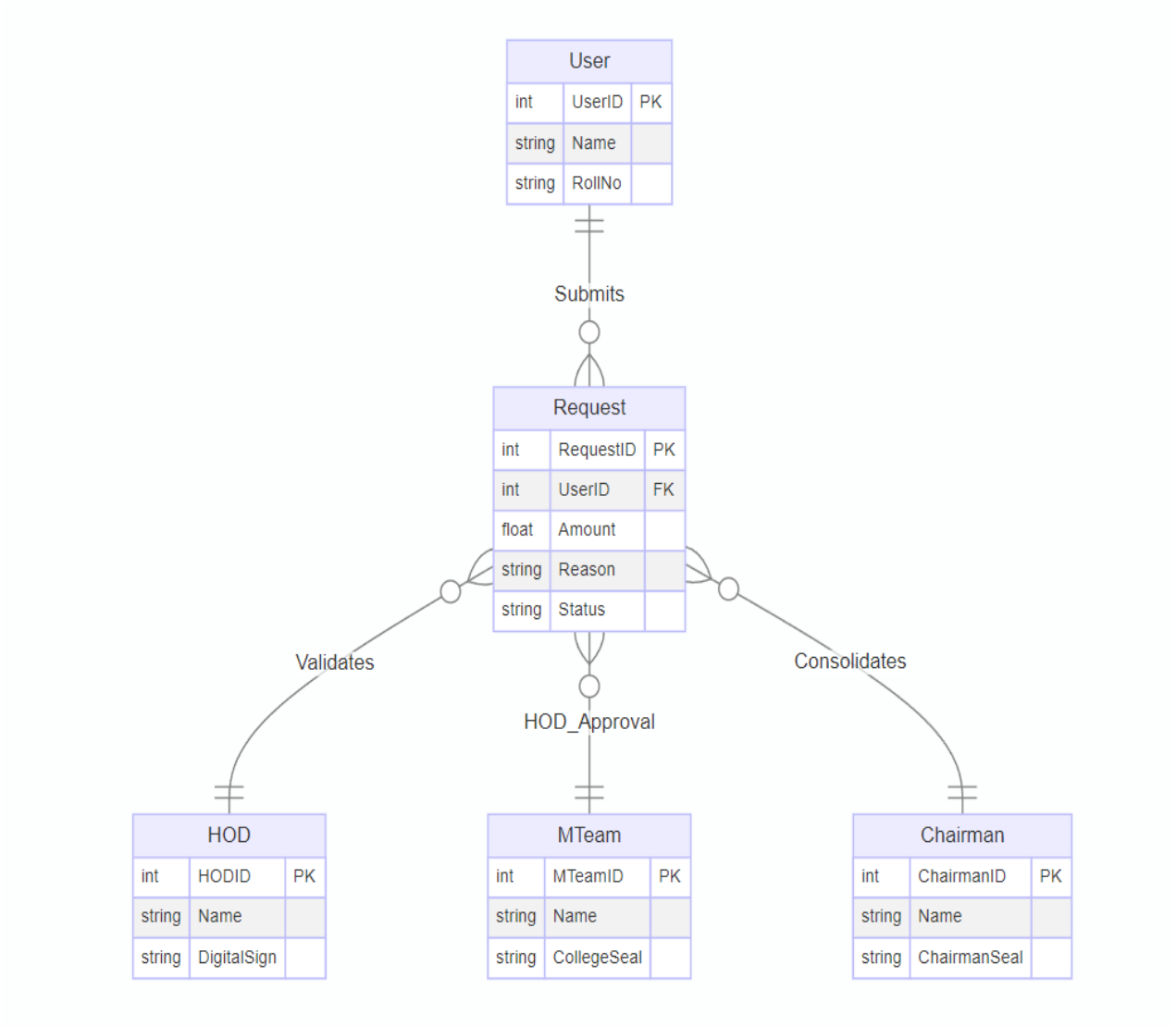
ER-Diagram


User
int
UserID
PK
string
Name
string
RollNo
Submits
Request
int
RequestID
PK
int
UserID
FK
float
Amount
string
Reason
string
Status
Validates
HOD_Approval
Consolidates
HOD
int
HODID
PK
string
Name
string
DigitalSign
MTeam
int
MTeamID
PK
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Name
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CollegeSeal
Chairman
int
ChairmanID
PK
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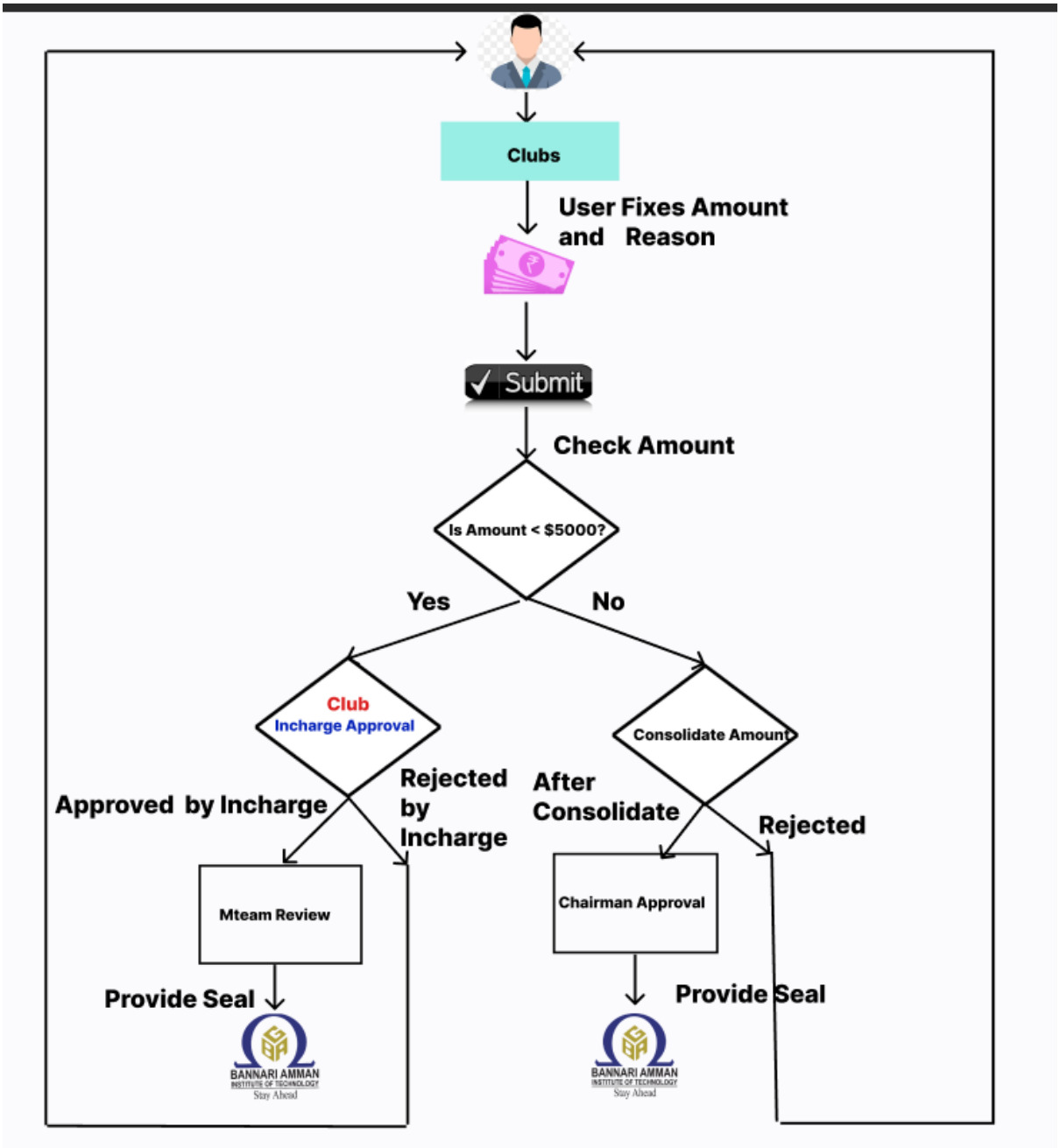
Name
string
ChairmanSeal

Clubs


Clubs
User Fixes Amount and Reason
Submit
Check Amount
Is Amount < $5000?
Yes
No
Club Incharge Approval
Consolidate Amount
Approved by Incharge
Rejected by Incharge
After Consolidate
Rejected
Mteam Review
Chairman Approval
Provide Seal
Provide Seal
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PROTOTYPE

BANNARI AMMAN INSTITUTE OF TECHNOLOGY
User Name :
Enter Your Name.....
Bitsathy
Faculty ID :
Faculty ID.....
LOGIN
BANNARI AMMAN INSTITUTE OF TECHNOLOGY
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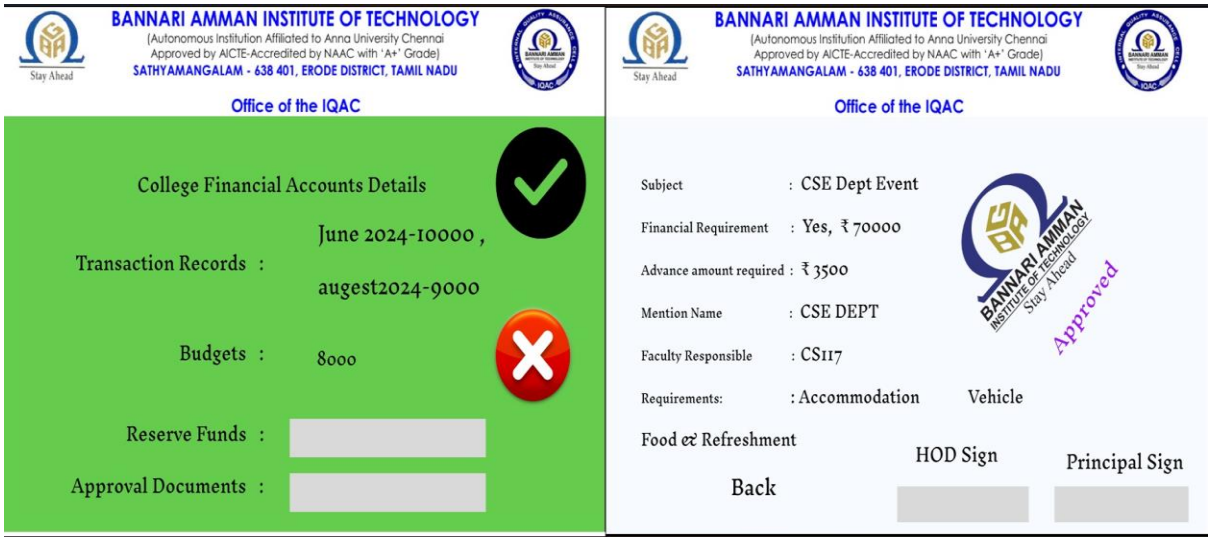
SATHYAMANGALAM - 638 401, ERODE DISTRICT, TAMIL NADU
Stay Ahead
Office of the IQAC
Date: __ / __ / ____
Subject: _____
Is amount : (Amount<5000 Or Amount >5000).....
Financial Requirement: Yes, ₹ _____ No On-Duty DA
Advance amount required: ₹ _____
Mention Name (Dept. / Spl. Lab / Clubs &Societies / any other): _____
Faculty Responsible (Name & ID): _____
Requirements: Accommodation Vehicle Food & Refreshment Not Applicable
(at our Institute)
SUBMIT
Submitted by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SATHYAMANGALAM - 638 401, ERODE DISTRICT, TAMIL NADU
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Office of the IQAC
College Financial Accounts Details
Transaction Records : June 2024-10000 , augest2024-9000
Budgets : 8000
Reserve Funds :
Approval Documents :
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SATHYAMANGALAM - 638 401, ERODE DISTRICT, TAMIL NADU
Stay Ahead
Office of the IQAC
Subject : CSE Dept Event
Financial Requirement : Yes, ₹ 70000
Advance amount required : ₹ 3500
Mention Name : CSE DEPT
Faculty Responsible : CS117
Requirements: : Accommodation Vehicle
Food & Refreshment
Back
HOD Sign
Principal Sign
BANNARI AMMAN INSTITUTE OF TECHNOLOGY
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Approved

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Office of the IQAC
Subject: We Will Conduct Dept Event
Financial Requirement: Yes, ₹ 9000
Faculty ID :CS117
Advance amount required: ₹ 3000
Description:
The department event planning involves organizing and coordinating various
departmental events, ensuring smooth execution from concept to completion. \
This includes managing logistics, budgeting,
and liaising with stakeholders to create successful and engaging events.
Principal Sign
Send
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SATHYAMANGALAM - 638 401, ERODE DISTRICT, TAMIL NADU
Stay Ahead
Office of the IQAC
Subject : CSE Dept Event
Financial Requirement : Yes, ₹ 9000
Advance amount required : ₹ 3500
Mention Name : CSE DEPT
Faculty Responsible : CS117
Requirements: : Accommodation Vehicle
Food & Refreshment
Back
HOD Sign
Chairman
Rejected
(Due to finance consolidate)