Software Requirements Specification (SRS) for Online Apex Approval System

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Problem Statement	Apex Approval

1. Introduction

1.1 System Overview

This document outlines the requirements for an online apex approval system for BANNARI AMMAN INSTITUTE OF TECHNOLOGY (BIT). The system will automate the current paper-based process for requesting and approving financial expenditures.

1.2 Target Audience

This SRS is intended for developers, stakeholders, and users of the online bill approval system, including:

- Faculty/Department Heads
- Dean/Principal
- IQAC Admin

2. Overall Description

The online apex approval system automates financial expenditure requests and approvals. It enables users to submit requests, routes them through multi-level approvals, and tracks their status in real-time. The system, accessible via web and mobile, features secure storage, robust user roles, and permissions, along with integration potential with existing ERP systems. With a user-friendly interface and scalability for future needs, it aims to streamline financial processes effectively.

2.1 System Functionality

The online apex approval system will provide a digital platform for:

- Submitting financial requests electronically.
- Routing requests through a multi-level approval workflow.
- Reviewing requests and making approval/rejection decisions.
- Uploading and managing supporting documents.
- Tracking the status of requests in real-time.
- Generating reports for audit purposes.

2.2 System Architecture

The system will be web-based and accessible from various devices. A secure database will store user information, request details, and uploaded documents.

3. Specific Requirements

3.1 User Roles and Permissions

- Faculty/Department Heads: Submit requests, upload documents, track status.
- Dean/Principal: Review and approve/reject requests within defined limits.
- IQAC Admin: Manage user accounts, generate reports, and configure workflows.

3.2 Functional Requirements

- Request Submission: Users can submit requests with details like amount, purpose, department, and expected outcome.
- Approval Workflow: A configurable workflow will route requests to appropriate approvers based on predefined criteria (amount, category).
- Review and Approval: Approvers can review requests, documents, and provide comments for decisions.
- Document Management: Upload and store scanned copies of bills and receipts.
- Notifications: Users receive real-time updates on the status of their requests.
- Reporting: Generate reports on spending patterns and approvals for audit purposes.

3.3 Non-Functional Requirements

- Security: Implement robust security measures to protect sensitive data (user information, financial details).
- Performance: The system should respond quickly to user actions and handle multiple concurrent users.
- Usability: User-friendly interface accessible from desktops, laptops, and mobiles.
- Maintainability: Design the system for easy modifications and future enhancements.

STACK:

Front end	HTML , CSS, Java Script
Back end	Django
Data Base	MySQL
API	Open API

FLOW CHART:
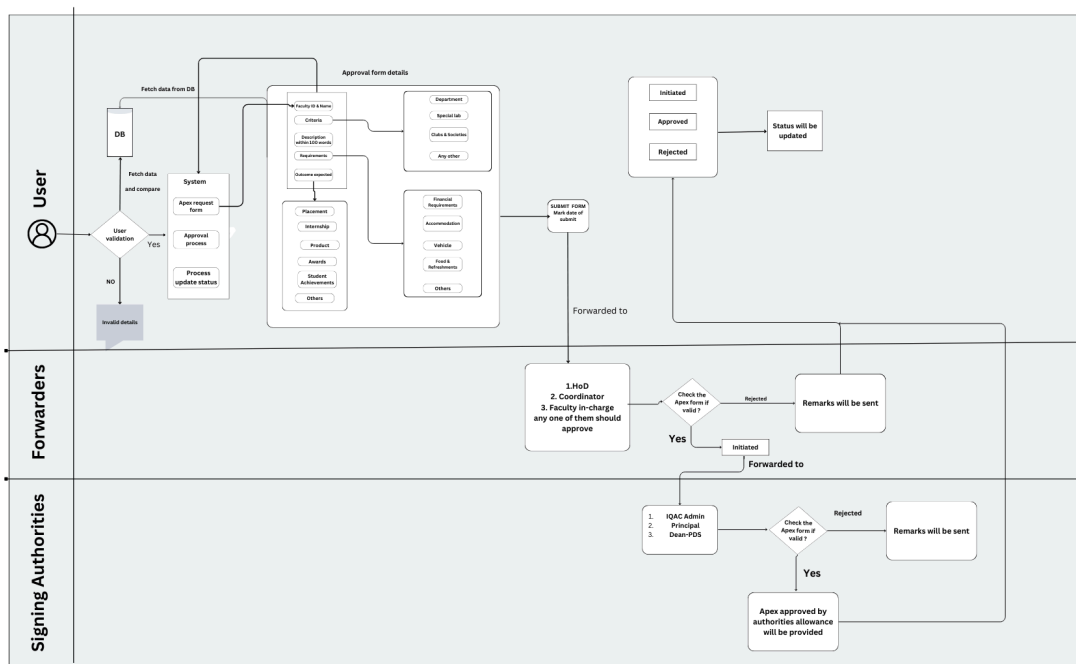
4. Back End:

Faculty entity:

Username	String
Faculty ID	String

Password	Hash code

Apex Form entity:

| Faculty ID & Name	String
Criteria(String drop down)	**Array of objects** 1. Departments 2. Special lab 3. Clubs & Societies 4. Others
Description	Strings (within 100 words including spaces)
Outcome expected (String drop down)	Array of Objects 1. Placement 2. Internship 3. Product Development 4. Awards 5. Students Achievements 6. Others (specify within 50 words)
Status	String
Date Of Submission	Time and date

Forwarder Entity:

ID of Hod / Special lab incharge/ Faculty in charge	String
Apex details	Details[ ] in the Apex form entity

Remaks (within 50 words)	String
Date	Time and date

Admin Entity:

ID of IQAC admin / Principal / Dean-PDS	String
Apex form details	Details[ ] in the Apex entity
Forwarder details	Details[ ] in the Forwarder entity
Remarks (within 50 words)	String
Date of approval	Time and date

ER DIAGRAM:
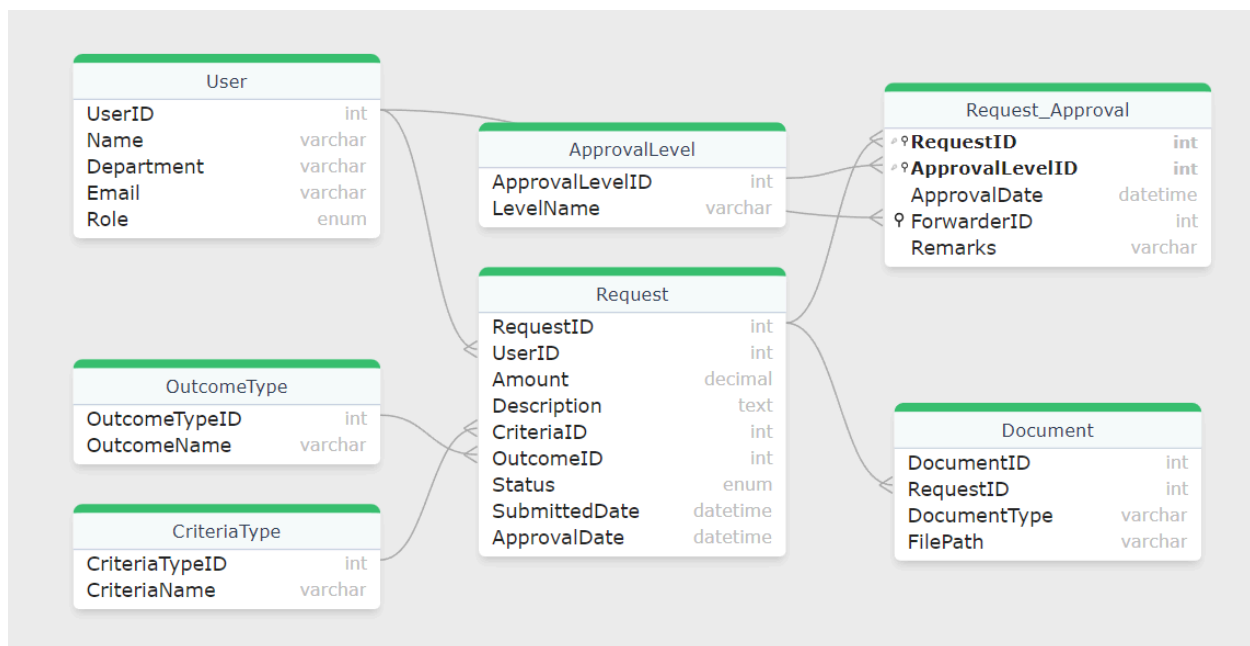
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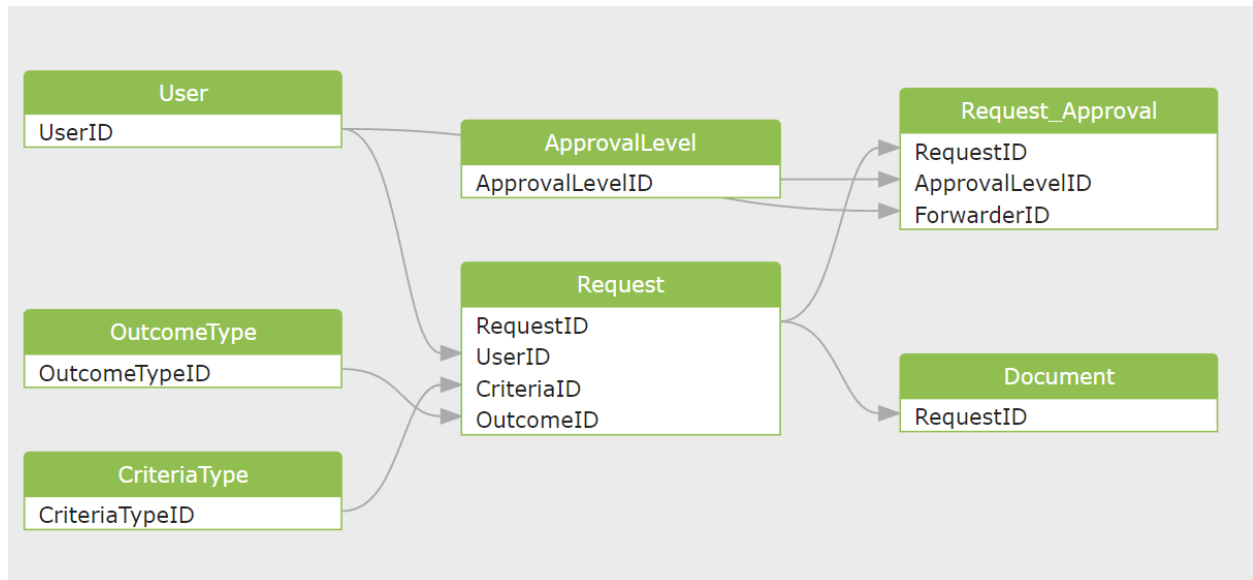
5. System Interfaces

The system may integrate with existing financial data sources (if applicable) to avoid manual data entry.

5.1   User Interface (UI):
- The web-based system will have a user interface accessible to various user roles, including faculty/department heads, dean/principal, and IQAC admin.
- Users will interact with the system to submit requests, upload documents, track request status, review/approve requests, and generate reports.

5.2   Application Programming Interface (API):
- The system may integrate with existing ERP systems used by the institute, implying the need for APIs to facilitate data exchange between the online bill approval system and the ERP systems.

5.3   Database Interface:
- The system will interact with the MySQL and PostgreSQL databases for storing user information, request details, uploaded documents, and other relevant data.

5.4   Network Interface:
- As the system is web-based and accessible from various devices, it will rely on network interfaces for communication between the client-side interfaces (web browsers or mobile apps) and the server-side components (Django backend, databases).

5.5   Integration Interfaces:
- Integration with existing financial data sources and ERP systems: The system may integrate with existing financial data sources or ERP systems used by the institute to avoid manual data entry and ensure consistency in financial records.

6. Other Considerations

- Consider developing a mobile app for on-the-go access.
- Design the system to be scalable for future growth and evolving needs.

7. References

This SRS provides a high-level overview of the requirements for the online bill approval system. Specific details and technical specifications can be further elaborated during the development process