BANNARI AMMAN INSTITUTE OF TECHNOLOGY
Autonomous Institution, Accredited by NAAC With 'A' Grade

STUDENT NAME: KALAIARASAN G

SEAT NO: 371

PROJECT ID: 33

PROJECT TITLE: APEX AUTOMATON''

TECHNICAL COMPONENTS:

COMPONENTS	STACK
Front End	➢ HTML ➢ CSS ➢ JS
Backend	➢ Python ➢ Django (Python Web)
Data Base	➢ PostgreSQL ➢ MySQL
API	➢ Open API ➢ SOAP APIs ➢ REST Ful API

INTRODUCTION:

Strong and stable, Apex Automation is made to enhance and accelerate development workflows, particularly when combined with the modern stack that consists of Python, Django, HTML, CSS, JS. Apex Automation automates crucial steps in the development process with the goal of minimising errors, improving project deadlines, and lowering manual labour. The approach provides a seamless and integrated environment for creating dynamic, scalable, and high-performance online applications by leveraging this tech stack.

SCALE:

- **Enhanced Efficiency**: Automation frees up teams to concentrate on more strategic duties by cutting down on the time and effort needed for various development chores.
- **Time-to-Market Acceleration**: Automation expedites the release of new features and products by optimising development processes.

PROJECT-WORKFLOW:

Requirements Gathering

- Use automated tools to document requirements for better verification and consistency.
- Analyze requirements to ensure they are accurate, comprehensive, and attainable.

Design

- Architectural Design: Produce high-level design documents outlining the architecture of the application.
- Make drawings, models, and diagrams to describe the user interface and experience.

Development

- Install Apex Automation tools and configure the environment for development.
- Assign assignments and due dates for development iterations, or sprints.
- Utilise HTML, CSS, JS, Python, and Django to create the website.

Deployment

- Build, test, and install procedures can be made fully automated by CI/CD pipeline configuration.
- Install the website in a staging environment and carry out final testing.
- With as little interruption and downtime as possible, deploy the website to the production environment.

Monitoring and Maintenance

- To keep track on the performance, security, and availability of the website, make use of automatic monitoring technologies.
- Take care of any problems or defects that appear in the real world.
- Implement upgrades, additions, and improvements in response to user comments and performance assessments.

FUNCTIONAL REQUIREMENTS:

REQUIREMENTS
1) **Login Portal**: Different roles (Faculty, Admin Staff)
2) **Home**: Uploads financial documentation
3) **Dashboard**: Settings, view previous projects
4) **Verification Page**: Verify documents
5) **Final Status**: Approved, Pending, or Reject

TECHNOLOGY: PYTHON

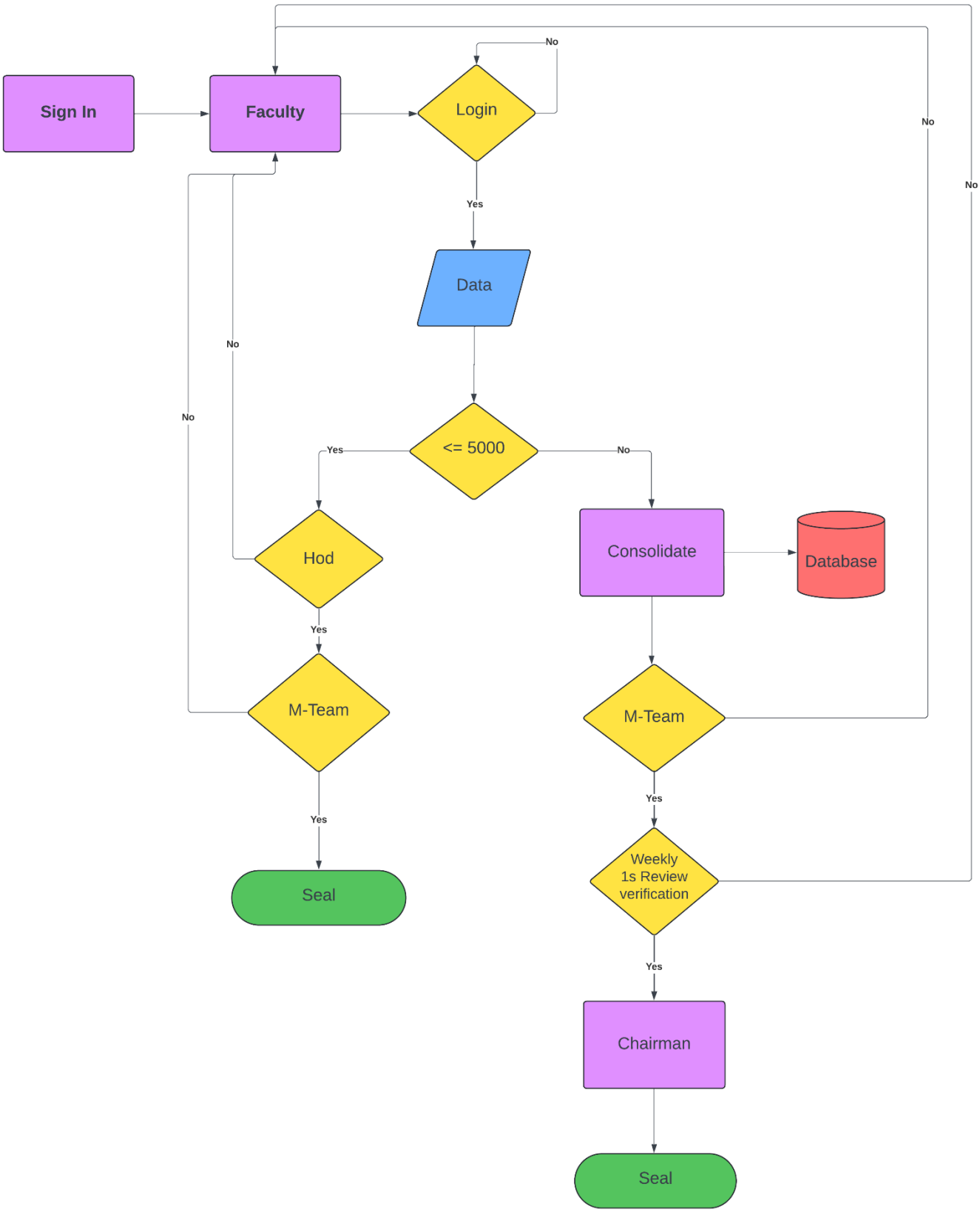
IMPLEMENTATION TIMELINE:

Phase	Deadline	Status	Notes
Stage 1	18/07/2024	**In progress**	Planning and Requirement gathering
Stage 2		**Not started**	Design and Prototyping
Stage 3		**Not started**	DB Designing
Stage 4		**Not started**	Backend Implementation
Stage 5		**Not started**	Testing & Implementation
Stage 6		**Not started**	Deployment

CONCLUSION:

Apex Automation offers a complete and effective solution for creating contemporary web applications by leveraging the stack of HTML, CSS, JS, Python, and Django. Shorter project schedules, less manual labour, and fewer errors are the outcomes of automating key project lifecycle procedures. To guarantee that the website is safe and complies with industry requirements, strong security measures are included. Apex Automation supports development teams in creating high-Caliber systems that meet and beyond business requirements by putting a strong emphasis on scalability, collaboration, and user experience.

FLOW CHART: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