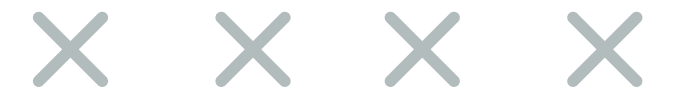Team System322

IUTian Threads

Lab 4: Project Management

CSE 4408: System Analysis & Design Lab
June 19, 2025

THE TEAM

Sadman Shaharier Mahim
220041133

Alfi Shahrin
220041153

Nayeemul Hasan Prince
220041125

Project Overview

- IUTian Threads is a university-specific, forum-style platform designed for students to share concerns, ask questions, and engage in structured discussions.

- Addresses the current lack of a centralized and effectively moderated issue discussion system at IUT and IUT-OSW.

Lab 3 - Recap

- Outlined objectives, issues, system requirements & constraints.

- Assessed feasibility using TEO

- Justified project selection using management backing, timing, strategic alignment, practicality, and investment value.

- Prepared a cost-benefit breakdown, drafted a high-level budget: $3,400.

Initial Project Plan & Schedule

Work Breakdown Structure

Chosen Methodology- Agile *with* O-O principles

Exploration
(2 weeks)

- Defining problem scope, timeline and team responsibilities

- Identifying stakeholders and goals

- Team formation

- Peform feasibility study with TEO

- Conduct Interviews with students and OSW
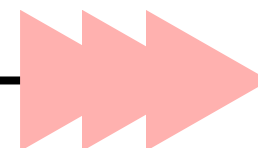
- Draft initial requirements

Planning
(1 weeks)

- Choosing tools, frameworks and tech stacks

- Breaking down project into sprints

- Assign team roles and rsponsiblities
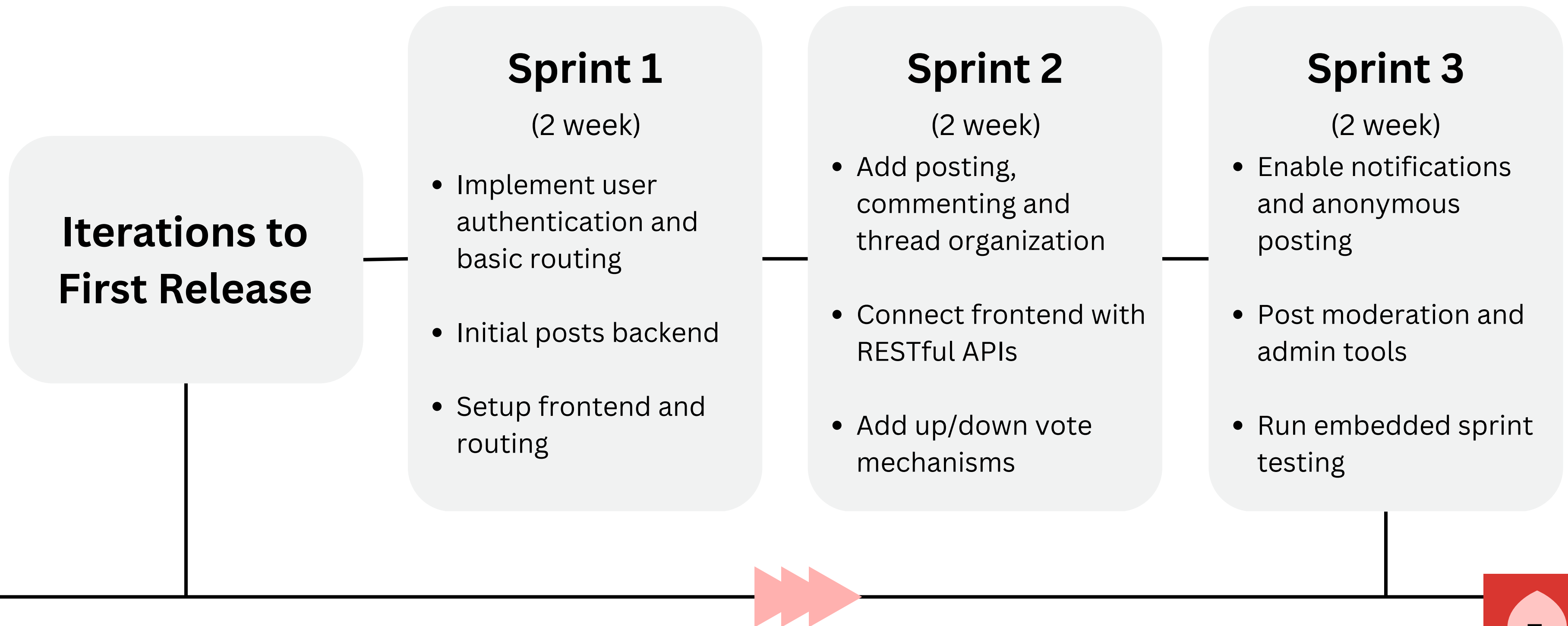
Design
(2 weeks)

- Create UI wireframes for web and mobile views
- Design the database schema
- Define navigation flow and forum structure
- Design API endpoints

Work Breakdown Structure

continued

Iterations to First Release

Sprint 1
(2 week)

- Implement user authentication and basic routing

- Initial posts backend

- Setup frontend and routing

Sprint 2
(2 week)

- Add posting, commenting and thread organization

- Connect frontend with RESTful APIs

- Add up/down vote mechanisms

Sprint 3
(2 week)

- Enable notifications and anonymous posting

- Post moderation and admin tools

- Run embedded sprint testing

Work Breakdown Structure
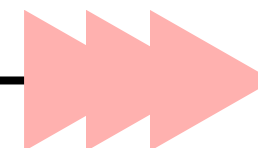
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Productionizing
(1 weeks)

- Frondend and backend integration testing

- Subdomain creation under IUT official domain

- Live Hosting on IUT servers using VPS Infrastructure

- Integration testing between frontend and backend

- UAT with a small group of beta-testers

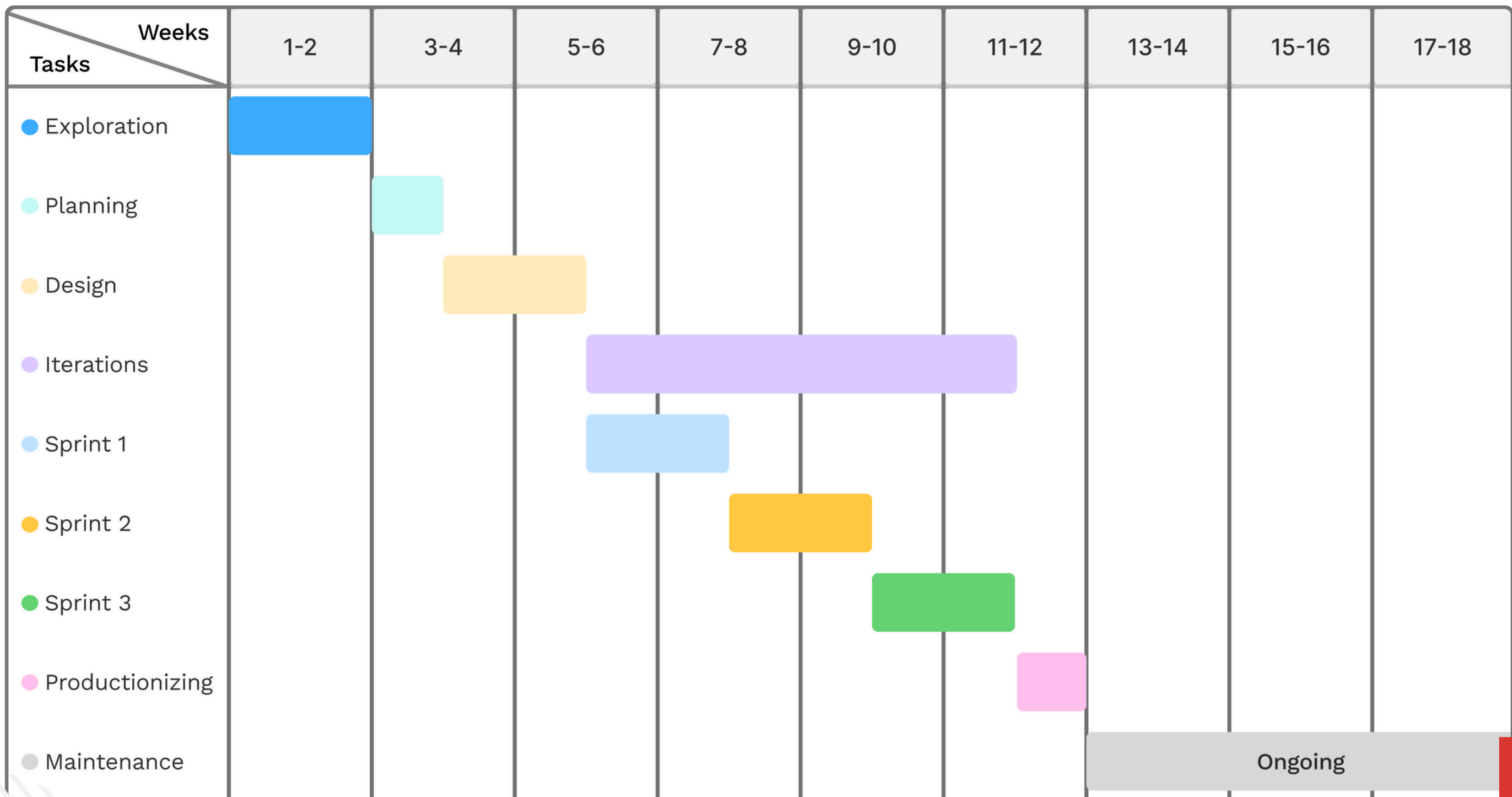- Bug fix upon feedback

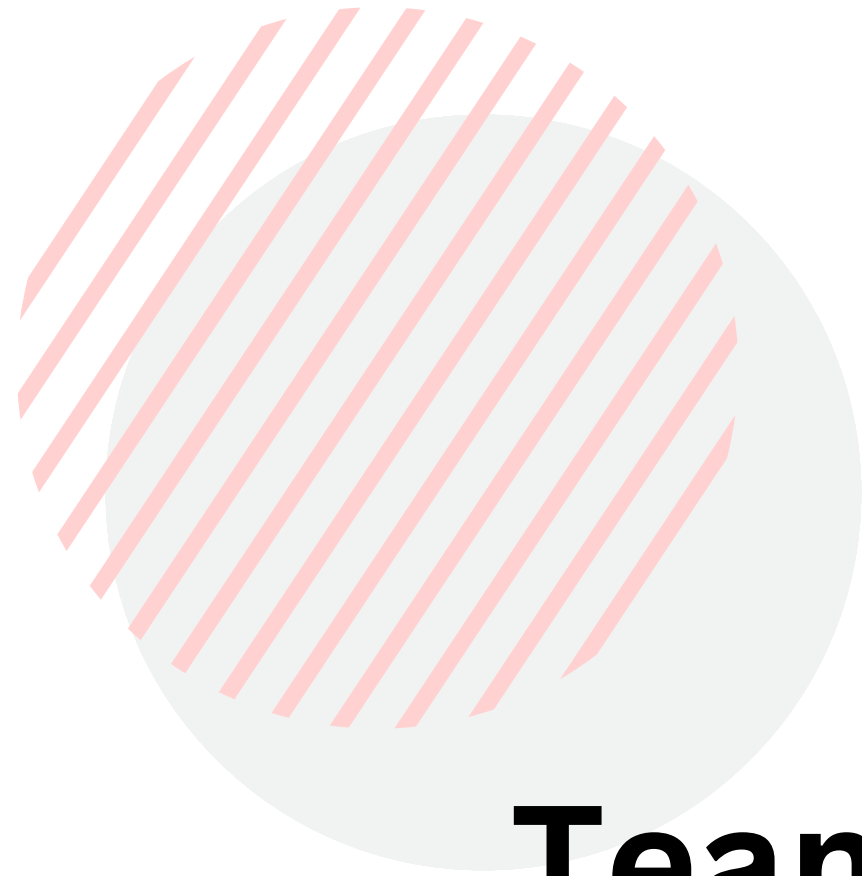- Prepare documentation

Maintenance
(ongoing)

- Regualr feature updates based on feedback

- Monitor server uptime and performance

- Maintain support page (FAQ)

- Handle content reporting

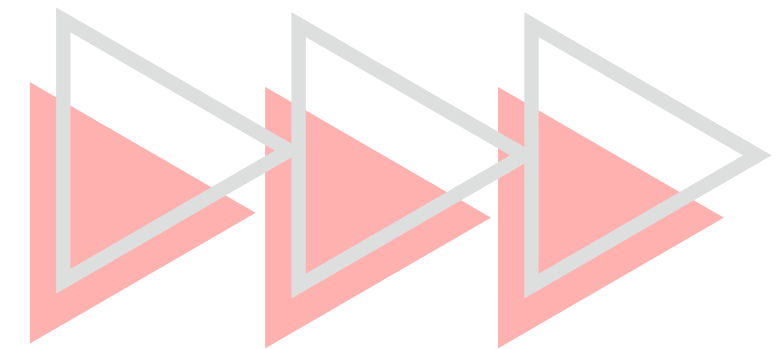- Periodic usuablity reviews and system check-ins

Gantt Chart

Weeks / Tasks	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18
● Exploration	███								
● Planning		██							
● Design			███						
● Iterations				████████	███████	████			
● Sprint 1				███					
● Sprint 2					███				
● Sprint 3						███			
● Productionizing							██		
● Maintenance								Ongoing	

Team Composition and Risks

Key Skills and Responsibilities

Role	Skills	Focused areas
Project Lead	Requirement gathering from stakeholders, user needs analysis and workflow visualization	Planning, Analysis
Programmer	MERN Stack (React, Express, Node js) , Git, REST and OAuth API etc	Development, Testing
Database Specialist	MongoDB, schema design, ER modeling	Development, DB Design
UI/UX Designer	Figma, HTML/CSS/JS, usability testing	Design
Domain Expert	Familiarity with university structure, OSW protocols.	Testing, Analysis

Risks through Fishbone Diagram
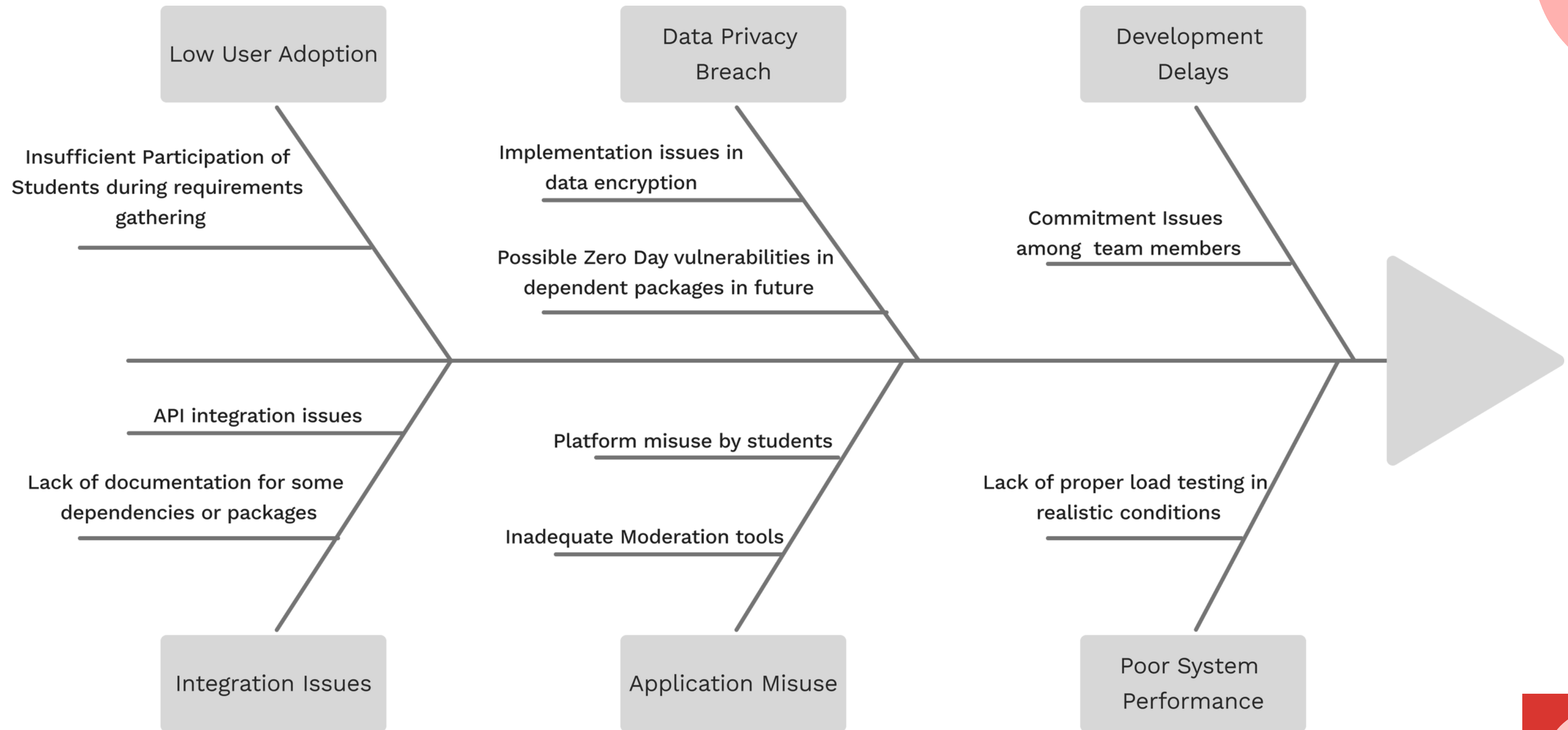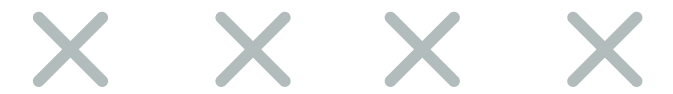
Project Charter & Proposal Outline

Project Charter

Objective
- Establish a centralized, university-specific forum to enhance student-administration communication

In-scope:
- User Authentication
- Forum based issue reporting
- Thread Management
- Post and comment system
- Voting mechanism
- Notifications
- Moderation tools

Out-of-scope:
- Private Messaging (DMs)
- No Monetization/Ads
- Free from unvetted AI-generated content

Project Charter

Methods
- Development Methodology: Agile with Object-Oriented principles
- Technology: Use of MERN stack and Flutter

Participants

Project Team assembled for the analysis, design and development

Stakeholders:
- **General Students**
- **University Faculty**
- **Alumni**
- **University Admins**

Project Charter

Deliverables

- Full stack web platform called IUTian Threads
- User guide, deployment manual
- System documentation including APIs
- Testing Reports

Evaluation Criteria

- System functionality & completeness
- Usability and user feedback
- Alignment with project goals

Timeline

4~5 months, 1-2 Buffer weeks

Project Charter

Training Plan

- User guides for students and moderators

- Live demonstration sessions

- Support page in FAQ format

- Admin/moderator onboarding session

Maintenance

- Will remain continuous after deployment, following Agile approach

- Designated moderators to handle content issues

- Server performance monitoring and periodic system checks

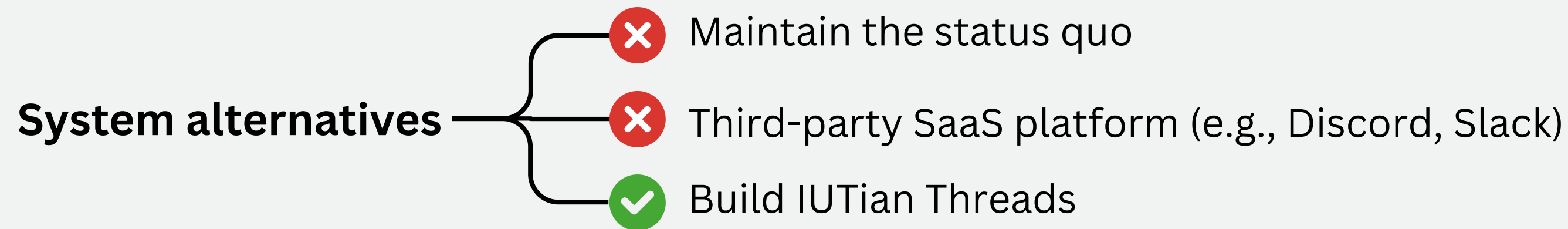# Project Proposal Outline

Executive Summary

- Who: Students at (IUT) and the Office of Students' Welfare (OSW)

- What: A university-hosted forum platform (IUTian Threads) for structured student-administration communication

- Why: Current platforms are distraction-prone and ineffective for issue reporting, especially in times of crisis (e.g., recent student protests)

- How: The system will be built in-house using IUT's infrastructure

Final Recommendation: Development and pilot deployment of IUTian Threads
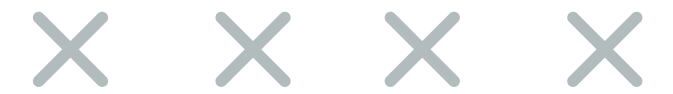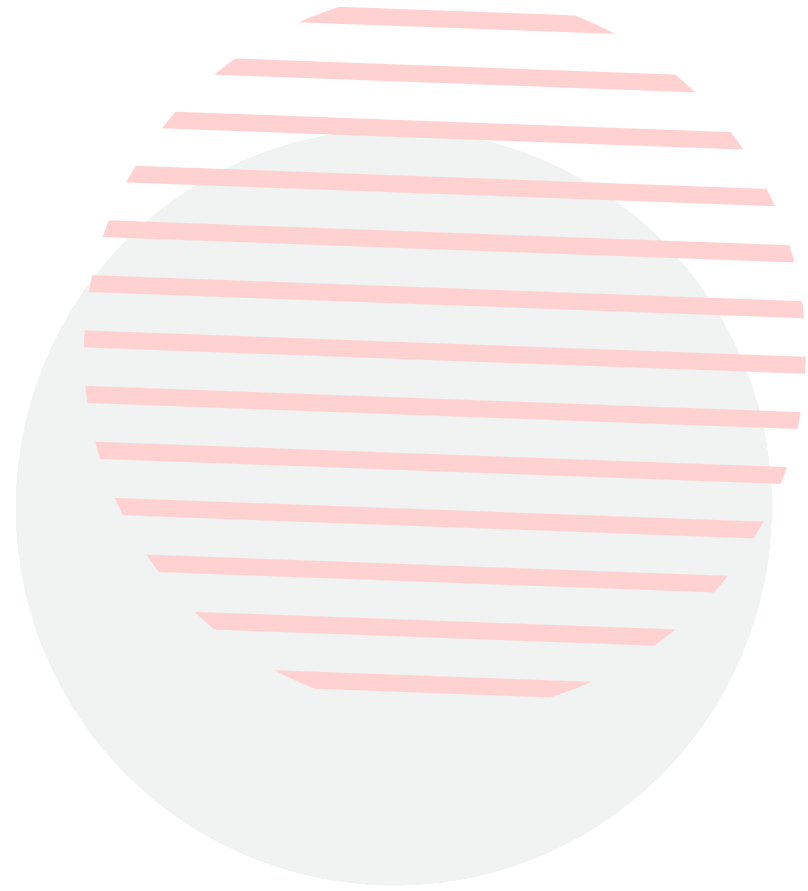
Project Proposal Outline

Outline of Systems Study

Used issue observation, informal student feedback, and cultural analysis from Lab 2 to identify pain points in the current communication process

System alternatives
- ❌ Maintain the status quo
- ❌ Third-party SaaS platform (e.g., Discord, Slack)
- ✅ Build IUTian Threads

Analyst Recommendation and Summary

Recommend developing IUTian Threads—a secure, IUT-hosted platform that addresses key communication gaps with structured, moderated dialogue.

Thank you!

We are open for Q&A