Dhirubhai Ambani University
Technology
Formerly DA-IICT

Virtual Classroom Platform

Project Report

Group - 33

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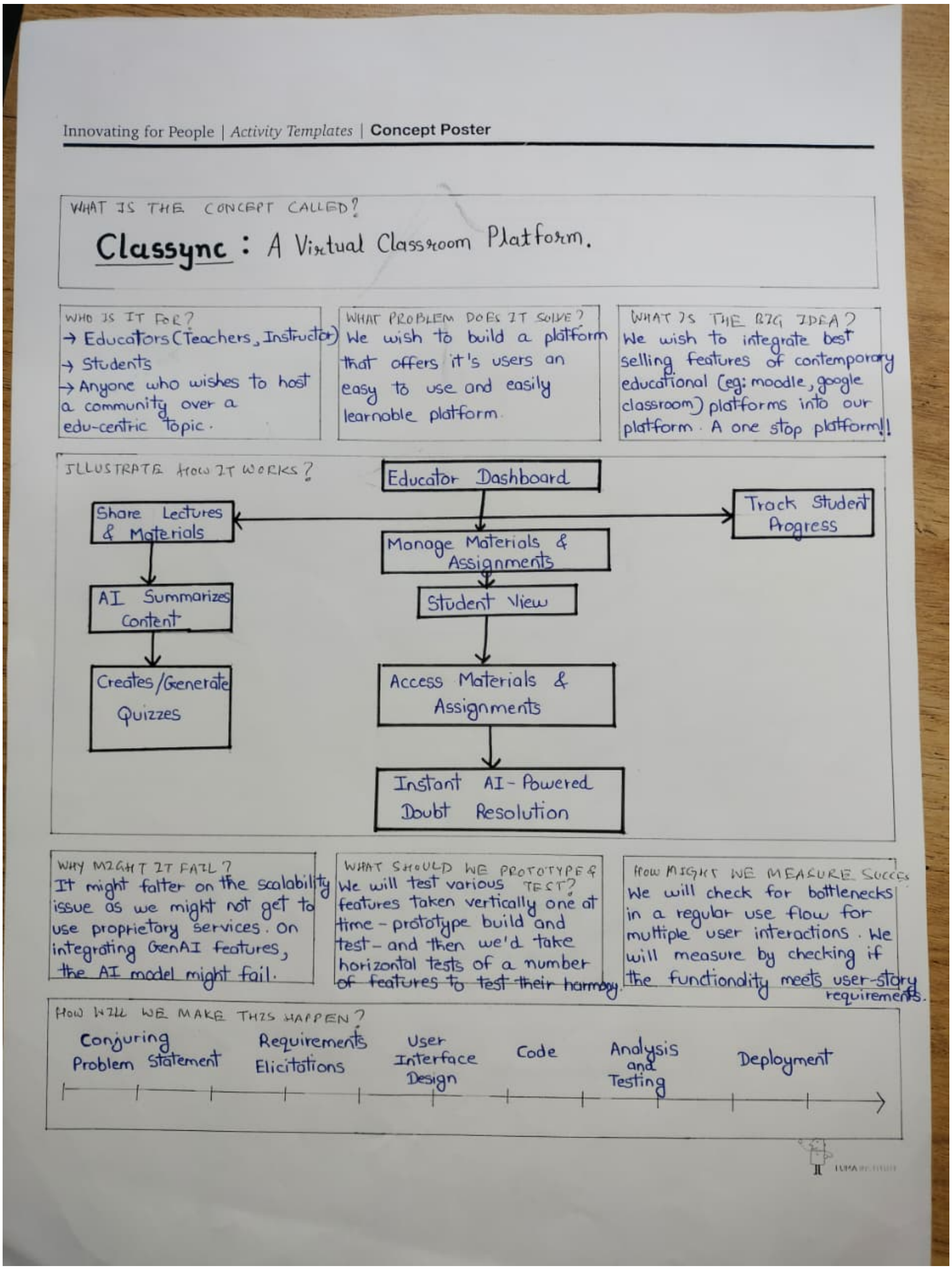
1. Concept Poster and Chart Paper



Innovating for People | *Activity Templates* | **Concept Poster**

WHAT IS THE CONCEPT CALLED?

Classync : A Virtual Classroom Platform.

WHO IS IT FOR?

→ Educators (Teachers, Instructor)

→ Students

→ Anyone who wishes to host a community over a edu-centric topic.

WHAT PROBLEM DOES IT SOLVE?

We wish to build a platform that offers it's users an easy to use and easily learnable platform.

WHAT IS THE BIG IDEA?

We wish to integrate best selling features of contemporary educational (eg: moodle, google classroom) platforms into our platform. A one stop platform!!

ILLUSTRATE HOW IT WORKS?

Educator Dashboard
Share Lectures & Materials
Track Student Progress
Manage Materials & Assignments
AI Summarizes Content
Student View
Creates/Generate Quizzes
Access Materials & Assignments
Instant AI-Powered Doubt Resolution

WHY MIGHT IT FAIL?

It might falter on the scalability issue as we might not get to use proprietory services. On integrating GenAI features, the AI model might fail.

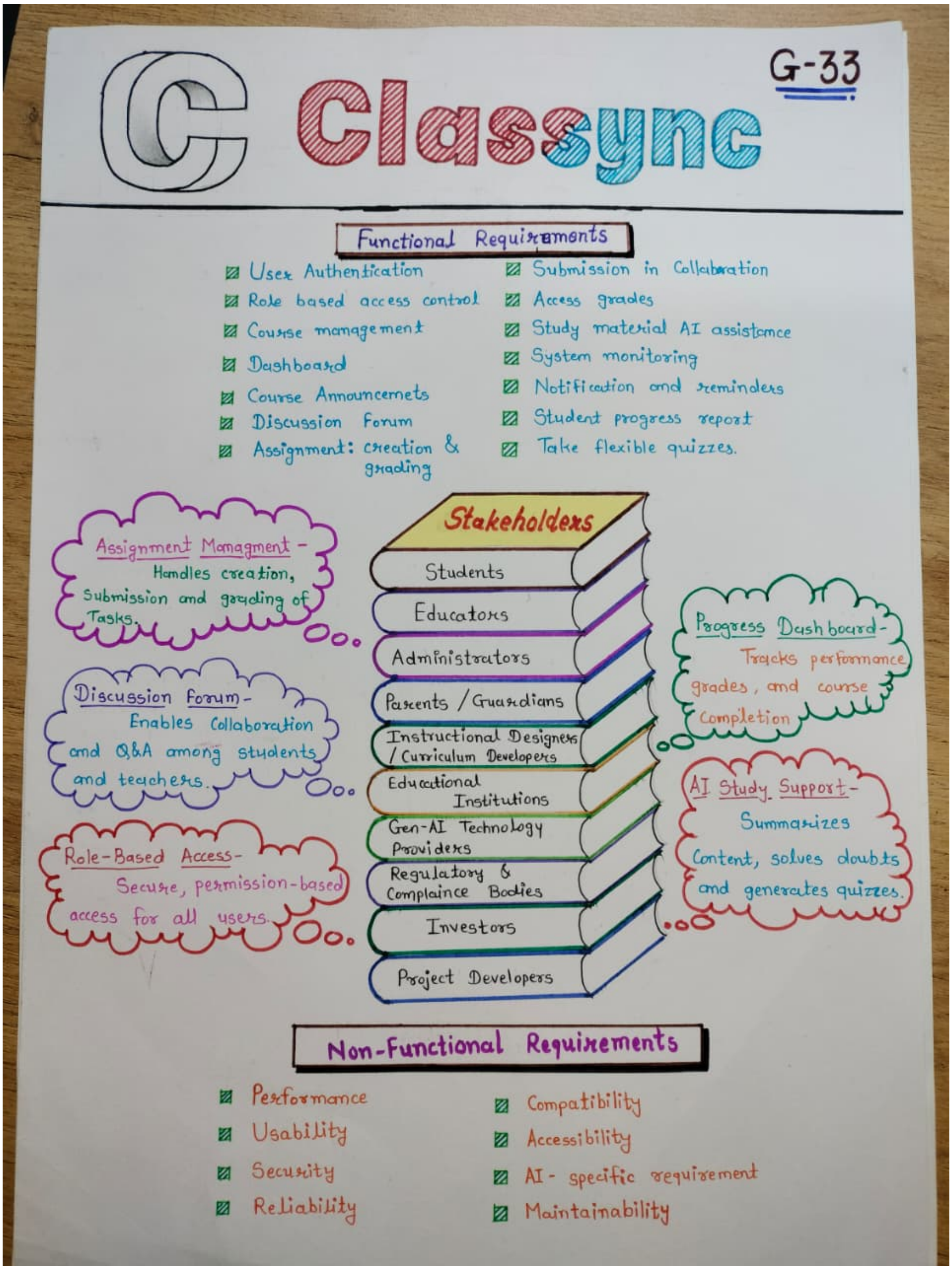
WHAT SHOULD WE PROTOTYPE & TEST?

We will test various features taken vertically one at time - prototype build and test - and then we'd take horizontal tests of a number of features to test their harmony.

HOW MIGHT WE MEASURE SUCCES

We will check for bottlenecks in a regular use flow for multiple user interactions. We will measure by checking if the functionality meets user-story requirements.

HOW WILL WE MAKE THIS HAPPEN?



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Classync

Functional Requirements

- ▨ User Authentication
- ▨ Role based access control
- ▨ Course management
- ▨ Dashboard
- ▨ Course Announcemets
- ▨ Discussion Forum
- ▨ Assignment: creation & grading
- ▨ Submission in Collaboration
- ▨ Access grades
- ▨ Study material AI assistance
- ▨ System monitoring
- ▨ Notification and reminders
- ▨ Student progress report
- ▨ Take flexible quizzes.

Assignment Managment - Handles creation, submission and grading of Tasks.

Discussion forum - Enables Collaboration and Q&A among students and teachers.

Role-Based Access - Secure, permission-based access for all users.

Stakeholders

- Students
- Educators
- Administrators
- Parents / Guardians
- Instructional Designers / Curriculum Developers
- Educational Institutions
- Gen-AI Technology Providers
- Regulatory & Complaince Bodies
- Investors
- Project Developers

Progress Dashboard - Tracks performance grades, and course completion

AI Study Support - Summarizes Content, solves doubts and generates quizzes.

Non-Functional Requirements

- ▨ Performance
- ▨ Usability
- ▨ Security
- ▨ Reliability
- ▨ Compatibility
- ▨ Accessibility
- ▨ AI - specific requirement
- ▨ Maintainability

2. Identify Stakeholders & Users

1. **Students**
   They are the primary users who will be using the system for tasks like accessing Materials, collaborating on group assignments, getting AI-powered help, and tracking their progress and much more.

2. **Instructors**
   They will use the system to manage class, share lectures, create assignments, track student performance, and delegate tasks.

3. **Teaching Assistants (TAs)**
   These individuals are secondary users of the system. Their role is to assist the primary instructor in managing the course.Performing task to grade assignments and have delegated permissions .

4. **Administrator**
   They are responsible for managing the entire platform, including user accounts, access rights, system settings, and ensuring smooth functioning of all features. Administrators also handle troubleshooting and technical support.

5. **Parents/Guardians**
   They will use the system to monitor their child's learning progress, performance, and participation in academic activities. They act as observers and provide support or feedback when required.

6. **Educational Institutions**
   Schools, colleges, and universities will use the system to manage academic records,ensure Institute curriculum is maintained and Access with Parents feedback .

7. **Gen-AI Technology provider**
   These are third-party service providers or integrated modules that supply AI-based tools, such as personalized tutoring, chatbots, automated grading, and content generation. They ensure the AI features are up-to-date and effective for use.

8. **Regulatory and Compliance bodies**
   They ensure the system complies with educational regulations, data protection standards, and accreditation requirements. Their role is to monitor and validate that policies are implemented correctly.

9. **Investors**
   They are stakeholders who provide funds for the platform. Investors are interested in the growth of users and financial sustainability of the system to ensure returns on investment.

10. **Project Developers**
    Technical team that builds, maintains, and updates the system. Their responsibilities include coding, testing, debugging, and adding new features to ensure the platform evolves with user needs.

11. **Marketing and Outreach Team**
    Promote platform adoption among institutions and students ,Handle campaigns they also have access to students statistics which can help them bring more institutions.

3. Requirements

Functional Requirements (FRs)

1. **Login and Signup with Roles (Student / Teacher)**
   Users can create accounts as either students or teachers. This helps with secure login and ensures role-based access and permissions.

2. **Create a Class or Join One**
   Teachers can create new classes, while students can join using a code or link. This makes it easy to organize teaching and learning.

3. **Upload, Edit, and Share Notes or Study Files**
   Both teachers and students can upload documents, edit them, and share with the class. This encourages collaboration and resource sharing.

4. **Create Assignments and Submit Them (Single Student or Group)**
   Teachers assign tasks to individuals or groups. Students can submit their work online, making assignment management simple.

5. **Teachers Can Make Announcements**
   Teachers can post updates, reminders, or important notices. Announcements help keep everyone in the class informed.

6. **Create Groups Inside a Class**
   Small groups can be formed for projects or activities. This supports teamwork and peer-to-peer learning.

7. **Students Can Submit Assignments as a Group**
   Students working in groups can make joint submissions. This supports collaborative assignments and shared responsibilities.

8. **Chat or Ask Doubts (Live Chat + AI Help)**
   Students can ask questions in real-time through chat. AI support is also available for quick doubt solving.

9. **AI Can Make Quick Quizzes and Summaries from Notes**
   The AI can automatically generate quizzes and study summaries. This saves time and helps students prepare better.

10. **Track How Students Are Doing in Class**
    Teachers can track student progress and performance. This makes it easier to identify who needs extra help.

Non-Functional Requirements (NFRs)

1. Easy to use → Simple, clean design for both students and teachers.

2. Fast → Pages should open quickly (under 3 seconds).

3. Can grow big → Should work even if many students and classes use it at the same time.

4. Safe → Only correct people can access (role-based login), files stored securely, and safe login (JWT).

5. Always available → Should work anytime, with very little downtime.

6. Trustworthy → Assignments and student data should never get lost.

7. Easy to update → Code should be clean and modular so it can be changed or improved easily.

4. Elicitation Techniques Used

1. **Survey (Google Form)** : To collect feedback from students about the features they would like in a Virtual Classroom System.
   - Collaboration Tool → Students want a feature to work together and submit group assignments.
   - Whiteboard → A digital whiteboard to write, draw, and sketch during classes.
   - Attendance Marking → Easy and transparent attendance tracking system.
   - Reminders → Option to set manual reminders for specific assignments or deadlines.
2. **Interviews** : The interviews revealed a strong need for a collaborative platform that:
   - Helps teachers share lectures, manage assignments, and track progress.
   - Provides students with AI-driven support (generating quizzes, summaries the topics, doubt solving).
   - We had asked Prof. Kalyan Sasidhar and Prof. Gopinath Panda about how they faced difficulties in conducting quizzes on Moodle and Classroom, after classes, because they had expressed distress about the tedious and complex interface of moodle and inflexibility of Google Classroom.
3. **Brainstorming(within team)** : The brainstorming session helped the team agree on core innovative features of the Virtual Classroom System:
   - Group Collaboration → discussion forums, group projects, shared notes.
   - AI Support → auto-generated quizzes, doubt solving, content summarization.
   - Document Editing → collaborative editing, teacher feedback, version history.
   - Assignment Management → easy submissions, reminders, progress tracking.
   - Lecture Sharing → recorded/video lectures, resource library.
4. **Analysis of Existing Systems(experience with Google Classroom and Moodle)** : We looked at our past experience using platforms like Google Classroom and Moodle. Both are useful, but we noticed some gaps:
   - Google Classroom is simple, but it lacks advanced features like real-time collaboration or built-in AI support.

- Moodle is powerful, but it often feels too complex and not very user-friendly for students.
- Neither tool gives instant AI-based help (like doubt solving, auto quizzes, or summaries).

5. Artefacts Identified

- List of people involved (students, teachers, admins).
- Survey answers from Google Form.
- Example users (student and teacher personas).
- Requirement document (list of FRs + NFRs).
- User stories (see next section).

6. User Stories (Front & Back Cards)

User Story 1: Authentication

Front: As a student, I want to register/login easily, so that I can access my classes.

Back:

Success: Accepts email/password (or OAuth), shows confirmation, and links to dashboard.

Failure: Invalid credentials are handled with clear errors; duplicate account prevention required.

User Story 2: Class Creation

Front: As an instructor, I want to create classrooms, so that I can manage my students.

Back:

Success: Must generate a unique class code for students to join, visible to instructor.

Failure: Duplicate class codes, missing class details, students unable to access with code.

User Story 3: Join Class

Front: As a student, I want to join a classroom with a code, so that I can access learning resources.

Back:

Success: System validates code and adds student to class roster.

Failure: Invalid/expired code accepted, student not linked to class after joining, no error on wrong input.

User Story 4: Material Editing

Front: As an instructor, I want to edit uploaded materials, so that I can update content without re-uploading.

Back:

Success: Changes saved as new version or “save a copy”, previous versions remain accessible.

*Failure:*Edited content overwrites without history, errors in saving changes, corrupted file version.

User Story 5: Progress Tracking

Front: As an instructor, I want to track student performance, so that I can identify weak areas.

Back:

Success: Dashboard shows submission status and grades clearly.

Failure: Missing or incorrect performance data, outdated reports, unauthorized access to student progress.

User Story 6: AI-Powered Doubt Resolution & Progress Tracking

Front: As a student, I want to ask doubts about lectures or assignments and get instant AI-powered explanations, so that I don't have to wait for the educator to respond and can learn continuously.

Back:

Success: Students can highlight text or type questions, AI provides context-aware answers, educators can view common doubts, logs are maintained.

Failure: AI gives irrelevant/wrong answers, system saves unclear responses, low-confidence answers shown as final.

User Story 7: Assignment Creation

Front: As an instructor, I want to create assignments, so that I can assess students.

Back:

Success: Must allow deadline, description, and file upload, visible to students immediately.

Failure: Assignment without required fields, invalid file type, missing due-date validation.

User Story 8: Upload Lecture Notes

Front: As an instructor, I want to upload lecture notes, so that students can study later.

Back:

Success: Supports PDF, DOCX, PPT uploads, notes appear in dashboard, downloadable by students.

Failure: Unsupported formats uploaded, corrupted file storage, student uploads blocked.

User Story 9: Minimalist Dashboard

Front: As a student, I want a seamless minimalist dashboard, so that my user experience is not confusing and errorless.

Back:

Success: Dashboard shows essential features, navigation 3 clicks, loads within 3 seconds.

Failure: Overloaded UI, slow loading, errors switching courses.

User Story 10: Participant Overview

Front: As a instructor, I want a comprehensive overview of participants in my course, so that I can assess the variety in participants.

Back:

Success: Instructor sees all enrolled students, sortable by performance, complete profiles shown.

Failure: Unauthorized access, incomplete/missing participant data, wrong course mapping.

User Story 11: Notifications

Front: As a student, I want regular notifications about my courses at least in my mail, so that I know about new coursework uploaded.

Back:

Success: Notifications for new uploads and deadlines, email option available, sent within 5 minutes.

Failure: Duplicate notifications, irrelevant course updates, undelivered emails not logged.

User Story 12: Flexible Quizzes

Front: As an instructor, I want the functionality to conduct flexible quizzes, so that I can assess students in the way I like.

Back:

Success: Supports MCQ/short answers, set deadlines, instant grading for auto-checkable questions.

Failure: Quiz without valid questions, duplicate/invalid entries, unauthorized re-attempts.

User Story 13: Grouping Students

Front: As an instructor, I want the ability to group students within the course, so that I can evaluate course groups easily.

Back:

Success: Groups created manually/automatically, syncs with assignments, students notified.

Failure: Overlapping groups without permission, unauthorized self-assignment, broken group links.

User Story 14: Collaborative Discussion Threads

Front: As a student, I want collaborative discussion threads linked to specific lecture slides, so that I can exchange ideas with peers while keeping context.

Back:

Success: Students can start/join threads on lecture slides, discussions remain linked to context, educators can moderate.

Failure: Threads detached from slides, irrelevant/unmoderated content, unauthorized users posting.

User Story 15: Bookmark Lecture Sections

Front: As a student, I want to bookmark important lecture sections, so that I can quickly revisit and revise key concepts later.

Back:

Success: Students can add/remove bookmarks, bookmarked sections appear in the dashboard, quick access works reliably.

Failure: Bookmarks not saved, incorrect sections bookmarked, access errors during revision.

User Story 16: Role-Based Access Levels

Front: As an instructor, I want to set different access levels (e.g., TA, co-instructor), so that I can delegate grading and course management tasks securely.

Back:

Success: instructors can assign roles (TA, co-instructor), delegated users can manage grading/materials, and permissions are role-specific.

Failure: Unauthorized users gain higher access, roles are not applied correctly, and grading rights are misassigned.

User Story 17: Collaborative Assignment Submission

Front: As a student, I want to submit assignments collaboratively with my group, so that shared projects are submitted as one.

Back:

Success: Group assignment submission accepted once, all members linked, instructor sees it as one submission.

Failure: Duplicate submissions, members not linked, submission not visible to instructor.

User Story 18: AI-Powered Quiz Generation

Front: As an instructor, I want AI to auto-generate quizzes from lecture materials, so that I can save time in preparing assessments.

Back:

Success: AI generates relevant MCQs/short answers, editable by instructor before publishing.

Failure: Irrelevant/out-of-context quiz, duplicate questions, quiz not saved.

User Story 19: Material Summarization

Front: As a student, I want AI-generated summaries of long lecture notes, so that I can revise faster.

Back:

Success: Summaries are concise, context-aware, downloadable.

Failure: Wrong/misaligned summary, duplicate outputs, system crash on large files.

User Story 20: Announcement Broadcast

Front: As an instructor, I want to make announcements in the classroom, so that students are informed of important updates.

Back:

Success: Announcements appear instantly in dashboard email notifications, stored in history.

Failure: Students miss announcements, wrong classroom announcements posted, duplicates.

User Story 21: Private Messaging

Front: As a student, I want to message my instructor privately, so that I can ask questions without disturbing the class.

Back:

Success: Secure chat enabled, conversation history maintained, notifications sent.

Failure: Messages lost, unauthorized access, no notification received.

User Story 22: Attendance Tracking

Front: As an instructor, I want to mark or auto-track attendance, so that I can monitor student participation.

Back:

Success: Attendance recorded manually or automatically (based on login/interaction), reports generated.

Failure: Wrong students marked present, duplicate records, missing logs.

User Story 23: Analytics Dashboard

Front: As an instructor, I want to see analytics of student engagement, so that I can improve my teaching approach.

Back:

Success: Dashboard shows login frequency, material usage, quiz performance, and doubts raised.

Failure: Incorrect/incomplete analytics, unauthorized data access, outdated reports.

User Story 24: File Version Control in Materials

Front: As an instructor, I want version control for uploaded files, so that I can maintain history of updates.

Back:

Success: Older versions remain accessible, version history displayed, rollback possible.

Failure: Files overwrite without saving history, wrong version displayed, rollback fails.

User Story 25: Dark/Light Mode Toggle

Front: As a student, I want to switch between dark and light mode, so that I can study comfortably.

Back:

Success: UI switches seamlessly, preference is saved for user.

Failure: Mode not saved, inconsistent UI, performance issues.

User Story 26: Multi-Device Support

Front: As a student, I want to access the classroom across devices, so that I can continue learning anywhere.

Back:

Success: Data synced across web/mobile, seamless experience, offline notes downloadable.

Failure: Sync issues, data loss between devices, login blocked.

User Story 27: Role-Based Announcements

Front: As an instructor, I want to send targeted announcements (to groups or roles), so that only relevant users are notified.

Back:

Success: Announcements reach selected groups only, logs maintained.

Failure: Wrong recipients notified, missing messages, duplicate notifications.

User Story 28: Calendar Deadline View

Front: As a student, I want a calendar view of all deadlines and events, so that I can manage my time effectively.

Back:

Success: Assignments, quizzes, and announcements auto-populate into a personal calendar; reminders set.

Failure: Deadlines missing, duplicate events shown, reminder notifications not triggered.

User Story 29: Export Grades Reports

Front: As an instructor, I want to export grades and progress reports, so that I can share or archive student performance data.

Back:

Success: Exports available in CSV/PDF, includes all students, formatting consistent.

Failure: Missing students, incorrect grades, file not downloadable.

User Story 30: Peer Feedback on Assignments

Front: As a student, I want to give and receive peer feedback on assignments, so that I can learn from my classmates' perspectives.

Back:

Success: Students can comment/review peer submissions (if enabled by instructor), feedback is tracked, and visible only to relevant users.

Failure: Unauthorized students access others' work, feedback not saved, spam/irrelevant comments.

7. Proof of Concept –Sprint 1

Project Information

Project: Classync
Sprint Duration: 3 Weeks
Sprint Goal: Gather requirements, define initial scope, and design conceptual layout of the Virtual Classroom platform.

Sprint Objective

The primary objective of Sprint 1 was to identify as many Functional and Non-Functional Requirements (FR/NFR) as possible using elicitation techniques for the Virtual Classroom system, document them systematically, and conceptualize the system's initial user interface inspired by user stories.

Activities Performed

a) Requirement Gathering (FR & NFR)

Techniques Used:

- **Google Form Survey:** Collected student responses to understand expectations, usability needs, and desired features (e.g., AI chatbot for doubt solving, auto quiz generation, interactive learning).
- **Faculty Interviews (2 Professors):** Gathered insights into essential teaching functionalities, assessment requirements, monitoring tools, and ease-of-use expectations.
- **Brainstorming Sessions:** Conducted within the team to refine ideas, prioritize features, and align them with feasibility.

Outcomes:

- **Functional Requirements (FR):** AI-powered doubt-solving chatbot, quiz generation, student dashboard, teacher dashboard, session scheduling, etc.
- **Non-Functional Requirements (NFR):** Usability, scalability, security, performance efficiency, and optimal response times.

b) Documentation & Visualization

- Created Requirement Documentation consolidating FR/NFR and user stories.
- Developed Mind Map and Requirement Charts to visualize interconnections between features.

c) Interface Design & Layout

- Designed a basic wireframe of the system to represent linkage between different functionalities.
- Created initial interface layout inspired by user stories for easy navigation and optimal usability.

Deliverables of Sprint 1

- **Requirement Documentation:** Complete list of Functional and Non-Functional Requirements with survey results.
- **Mind Map & Requirement Charts:** Visualization of relationships between system features.
- **Initial Wireframe Design:** Basic interface structure for both student and teacher views.

8. Epics

Epic 1: The Effortless Digital Classroom for Teachers

This Epic focuses on providing teachers with a seamless and intuitive interface for managing all aspects of their course from a single location. The purpose is to alleviate the administrative work and technological friction associated with systems such as Moodle, allowing them to focus on teaching rather than technology. This involves developing a sophisticated set of tools for course creation, material delivery, and class administration.
User Stories that would belong here are:

- Class Creation (User Story 2)
- Material Editing (User Story 4)
- Upload Lecture Notes (User Story 8)
- Participant Overview (User Story 10)
- Grouping Students (User Story 13)
- Role-based Access Levels (User Story 16)
- Announcement Broadcast (User Story 20)
- Attendance Tracking (User Story 22)
- File Version control in Materials(User Story 24)

Epic 2: An Intelligent On-Demand Learning Assistant

This Epic focuses on our project's most revolutionary aspect: the integrated AI support system. The goal is to build a "smart" assistant that helps students learn more effectively by offering quick, context-aware assistance, eliminating the restrictions of waiting for an educator's response. This functionality specifically solves the gap we found in existing platforms such as Google Classroom and Moodle.
User Stories that would belong here are:

- AI-Powered Doubt Resolution (User Story 6)
- AI Powered Quiz Generatio (User Story 18)

- Material Summarize (user story 19)
- The functional requirement for the AI to ”make quick quizzes and summaries from notes” would be divided into new user stories inside this epic.

Epic 3: Creating a True Collaborative Learning Community

This Epic focuses on developing features that go beyond mere content distribution and transform the platform into a dynamic area for student engagement and teamwork. The feedback we received indicated a strong desire for tools that enable students to work together effectively. This Epic strives to provide a rich, interactive environment that encourages group projects, peer-to-peer learning, and contextual discussions.
User stories that would fit here include:

- Assignment Creation (specifically for group submissions, as per FRs)
- Collaborative Discussion Threads (User Story 14)
- collabortive Assignment Submission (user story 17)
- Peer Feedback on Assignments (User Story 30)
- The functional requirement to ”Create groups inside a class” and have students ”submit assignments as a group” would be key to this epic.

Epic 4: Actionable Insights into Student Performance

This Epic focuses on providing educators with clear, comprehensive, and easy-to-access tools to assess student learning and track their progress over time. The goal is to give teachers the data they need to identify students who might be struggling and to understand the overall effectiveness of their teaching methods, a key requirement that came up in our interviews.
User Stories that would belong here include:

- Progress Tracking (User Story 5)
- Assignment Creation (User Story 7)
- Flexible Quizzes (User Story 12)
- Analytical Dashboad (User Story 23)

Epic 5: The Streamlined Student Command Center

This Epic is dedicated to providing a seamless and personalized user experience for students. The goal is to make sure that from the minute a student logs in, their trip is simple, organized, and clutter-free. This entails creating a tidy dashboard that serves as a primary hub, allowing simple access to all courses, materials, and deadlines while also giving options for personal organization. This immediately meets the non-functional needs for a speedy and user-friendly system, as well as the user's desire for a minimalist interface.
User Stories that would fit here include:

- Authentication (User Story 1)
- Join Class (User Story 3)
- Minimalist Dashboard (User Story 9)
- Notifications (User Story 11)
- Bookmark Lecture Sections (User Story 15)
- Multi-Device Support (User Story 26)
- Calender of deadline (User Story 28)
- A new user story based on the initial survey for "Setting manual reminders for deadlines" would also fit perfectly within this Epic.

9. Epic Conflicts & Resolutions

Epic 1 (Effortless Classroom) vs. Epic 3 (Collaborative Learning Community)

Conflict:

- User Story 4: Material Editing (instructors can edit uploaded materials)
- User Story 14: Collaborative Discussion Threads (students link discussions to lecture slides)
- If an instructor edits or replaces material (US4), linked student discussions (US14) may lose context or become detached.

Reason: Teachers' right to update vs. Students' need to keep context. **Solution:**

- Maintain version history of materials (already hinted in US4 success criteria).
- Ensure discussions remain attached to the version students were viewing.
- Notify students when the lecture they discussed was updated.

Epic 3 (Collaboration) vs. Epic 5 (Student Command Center)

Conflict:

- User Story 14: Collaborative Discussion Threads (multiple context-linked discussions)
- User Story 9: Minimalist Dashboard (3 clicks, clutter-free)
- Too many threads or group features (US14) can clutter the minimalist dashboard (US9).

Reason: Rich collaboration vs. clean, simple UX. **Solution:**

- Keep discussion threads in a secondary panel/tab instead of the main dashboard.
- Let students filter or collapse threads.
- Personalization toggle → "Basic Mode" (minimalist) vs. "Collaboration Mode" (full features).

Epic 1 (Effortless Classroom) vs. Epic 2 (AI Assistant)

Conflict:

- User Story 8: Upload Lecture Notes (teacher uploads curated content)
- User Story 6: AI-Powered Doubt Resolution (AI generates summaries/quizzes from notes)
- Teachers (US8) may feel their content is being altered/misinterpreted by AI (US6).

Reason: Authority over teaching material vs. AI auto-generation. **Solution:**

- AI-generated quizzes/summaries should be labeled "AI Suggested – Pending Teacher Approval."
- Teachers can edit or approve AI output before students see it.

Epic 2 (AI Assistant) vs. Epic 3 (Collaboration)

Conflict:

- User Story 6: AI-Powered Doubt Resolution (AI answers instantly)
- User Story 14: Collaborative Discussion Threads (peer-to-peer doubt exchange)
- If students get instant AI answers (US6), they may skip peer discussions (US14), reducing collaboration.

Reason: AI efficiency vs. peer learning. **Solution:**

- Blend AI + collaboration: AI answers should be visible in threads so peers can discuss/refine AI answers.
- Educators can encourage AI-assisted discussions rather than one-on-one silent AI chats.

Epic 1 (Effortless Classroom) vs. Epic 5 (Student Command Center)

Conflict:

- User Story 2: Class Creation (instructor generates unique codes for access)
- User Story 3: Join Class (student enters code to join easily)

- If class codes are complex (US2) to ensure uniqueness/security, students (US3) may find them hard to remember/type, breaking the minimalist and seamless student experience.

Reason: Security vs. simplicity. **Solution:**

- Use shortened join links or QR codes along with alphanumeric codes.
- Implement "copy-paste" one-click join to balance security and simplicity.

Epic 1 (Effortless Classroom) vs. Epic 4 (Performance Insights)

Conflict:

- User Story 10: Participant Overview (instructors see all enrolled students + profiles)
- User Story 5: Progress Tracking (performance dashboards for instructors)
- Participant overview (US10) may expose personal details beyond what's needed for progress analytics (US5), creating privacy and data security conflicts.

Reason: Comprehensive visibility vs. privacy/security. Solution: **Solution:**

- Apply role-based privacy filters → instructors see academic data, but sensitive info (emails, personal details) is restricted unless necessary.
- Give students control over what profile data is visible.

Contributions

Member ID	Contribution
202301447	User Story,Survey,FRs and NFRs,Auth. Implementation
202301474	User Story,Functional Requirements
202301184	Epic Conflicts,Doc. Format,Classroom Page Implementation
202301430	Poc of Sprint 1, Doc. Format
202301461	Elicitation Techniques , Frontend of homepage
202301163	Charts Designing ,Identifying and writing EPICs
202301477	Charts Designing, FRs and NFRs
202301452	User Stories , Backend of AI doubt resolver
202301442	Elicitation Techniques , Frontend of homepage
202301488	Identifying Stakeholders

GitHub Repository: **View on Github**

Group Photo