Not another group project!

Manisha Karia and Mohammed Akhoirshida

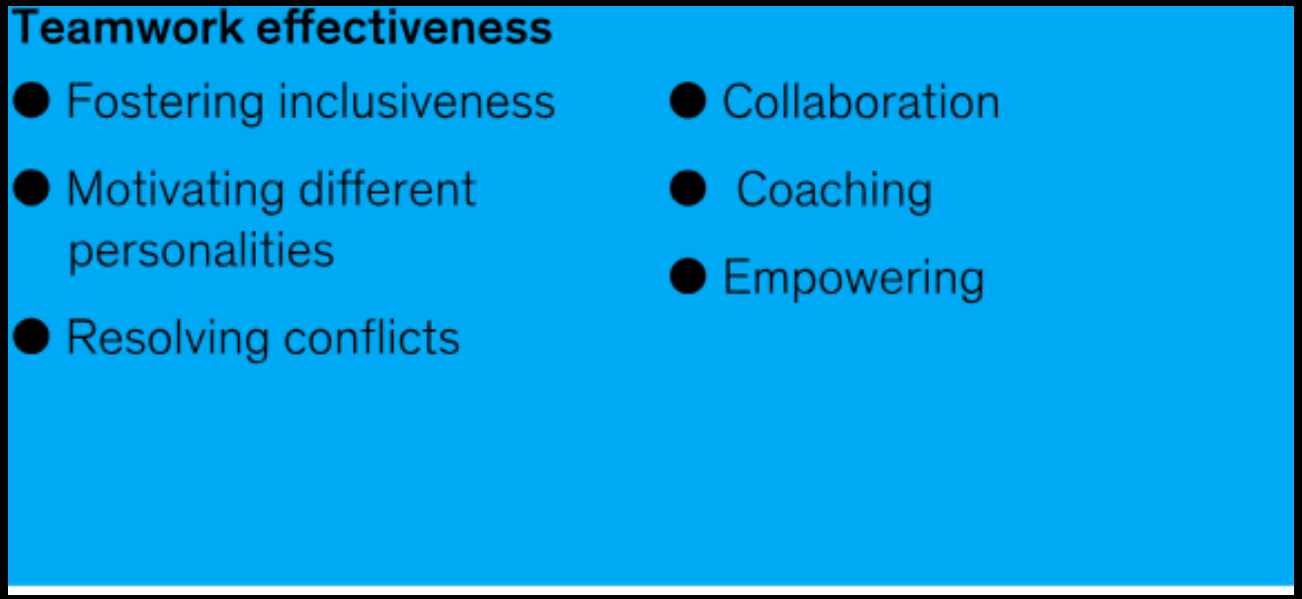
Topics for Today

Group Work Matters
Common Complaints
Transforming Student Experience
Examples
- Accounting
- Business
- Entrepreneurship

CIS – Project Style

Why Group Work Matters

Scholarly and practitioners' perspective



- *DELTAS – Distinct Elements of Talent – Source: https://www.mckinsey.com/industries/public-sector/our-insights/defining-the-skills-citizens-will-need-in-the-future-world-of-work

Common Complaints

Common Complaints

Student Perspective

- Uneven workload
- Lack of accountability
- Poor communication
- Scheduling conflicts
- Unclear grading criteria
- Tasks divided not truly collaborative

Faculty Perspective

- Difficult to assess individual work
- Time-consuming
- Frequent conflicts or free-riding
- Student resistance
- Misalignment with learning outcomes
- Hard to ensure meaningful interaction

Transforming student experience

- Align Rigor with Student Stage
- Group Size & Group Member Selection
- Prepare Students with Support Tools: checklists, contracts, check-ins
- Scaffold milestones
- Inclusive practices & rotating roles
- Assessing: criteria and grading scheme clear; process and outcome, individual paired with group/peer/self-evaluations

Source: Eberly Center: Teaching Excellence & Educational Innovation and Learning and Teaching Unit at UNSW https://www.student.unsw.edu.au/groupwork

Managerial Accounting Group Project

A phased approach to collaborative case study analysis in Accounting 1C –

Faculty - Catherina Wong

Project Structure: Bakery Case Study

Phase 1: Cost Analysis

Calculate new product delivery costs

Phase 2: Break-Even Analysis

Determine financial viability threshold

Phase 3: Investment Planning

Quantify required capital investment

Phase 4: Final Recommendation

Present business owner recommendations

Implementation Approach

Structured Feedback

- Each phase requires submission
- Instructor provides guidance between steps

Support Resources

- Step by Step instructions
- Grading rubrics for each phase
- Tutoring office has sample projects

Final Presentation

- Oral presentation required
- Full team participation expected

My journey –
- 3 courses
- International Project

BUS 10 - Intro
BUS 55 - Entrepreneurship
BUS 56 – Human Relations in the Workplace

“I have not failed 700 times. I’ve succeeded in proving 700 ways how not to build a lightbulb.”

- Thomas Edison

Things that worked for me

In-Person

- 🗣️ Class Discussions
- 🤝 Introduction Activities
- 🔄 Small Icebreaker Projects
- 🧰 Skills Inventory
- CANVAS Leveraging Canvas Tools
- 📆 Regular In-Class Check-Ins
- ❤️ Relationship-Building Conversations
- Assessment – Group and Self-evaluation

Online

- 💬 Intro Video/Discussion Board
- 📝 Skills Inventory (Google Form)
- CANVAS Leveraging Canvas Tools – group discussion forums, collaborative tools
- 📆 Regular Check-Ins
- 💡 Low-Stakes Collaborative Tasks
- 📧 Prompt Email/Inbox Replies
- 📹 Optional Zoom Drop-Ins
- Assessment – Group and Self-evaluation/Individual assignment/quiz questions

Tools you can use to make it meaningful and less tedious for faculty

Group Project Design Canvas
Teamwork checklist and contract - https://www.student.unsw.edu.au/groupwork
More group project tools, including group assessments - https://www.cmu.edu/teaching/designteach/design/instructionalstrategies/groupprojects/tools/index.html

Planning Group Work –

- Design
- Supervise
- Assess

Project Lifecycle: Managing Teams & Timelines

Course Name, Team Members, Date

01

Team Structure

Tasks

- Form teams
- Select a team lead
- Choose team name
- Choose a project
- Define roles for each team member

02

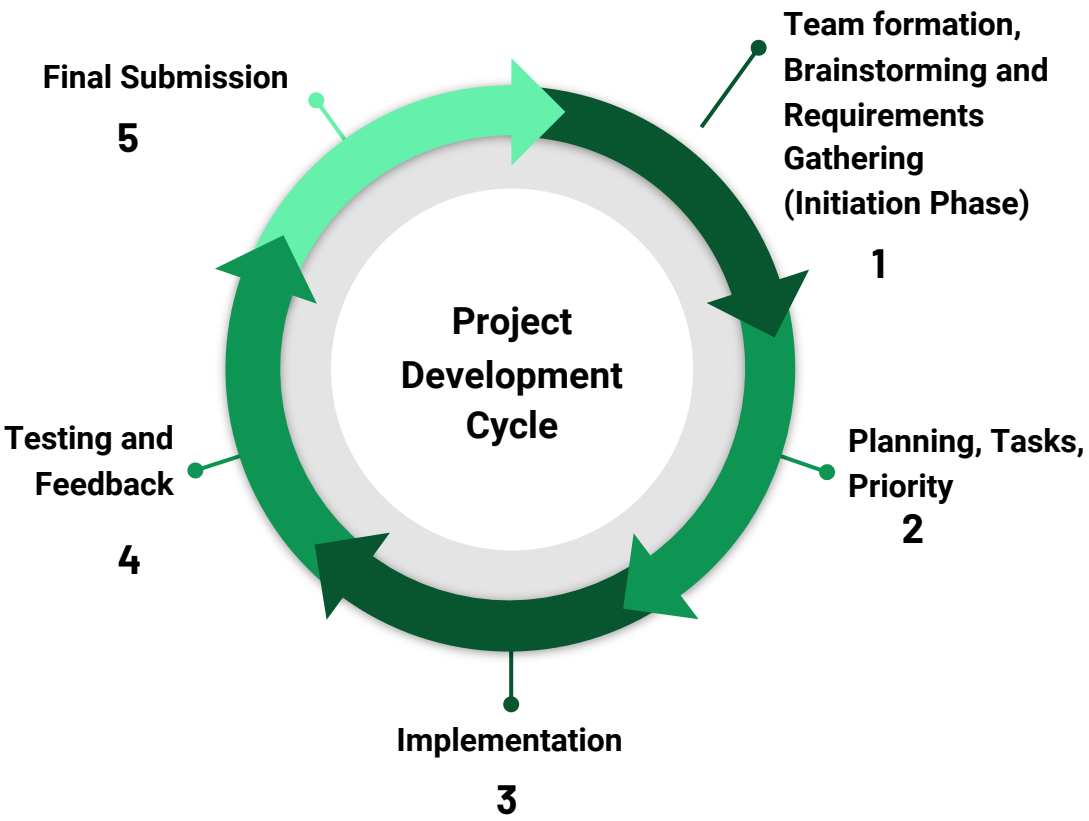
Project Overview & Objectives

Tasks

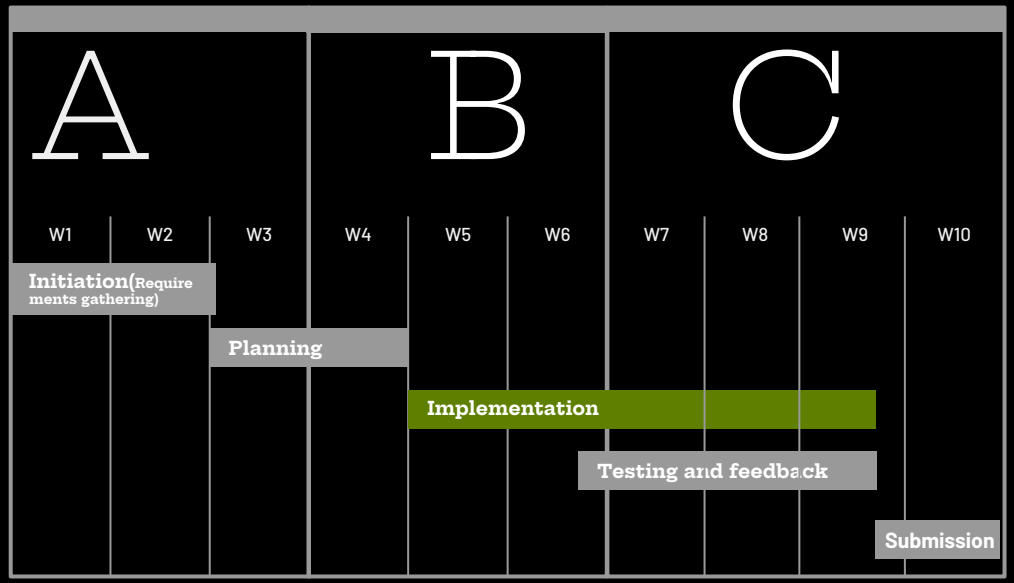
- Define the problem statement
- Problem Analysis & Solution Research
- Propose the solution
- Outline expected outcomes

03

Project Development Phases


Project Development Cycle
Team formation, Brainstorming and Requirements Gathering (Initiation Phase)
1
Planning, Tasks, Priority
2
Implementation
3
Testing and Feedback
4
Final Submission
5

Timeline


A
B
C
W1
W2
W3
W4
W5
W6
W7
W8
W9
W10
Initiation(Requirements gathering)
Planning
Implementation
Testing and feedback
Submission
Milestone 1
Milestone 2
Milestone 3
Milestone 4
Milestone 5

04

Communication & Risk Management

Tasks

- Weekly meetings (Use Google meet, Zoom, In person, etc)
- Regular updates (Use slack, discord, Google chat)
- Log potential risks,issues and impacts
- Weekly sync with the professor

05

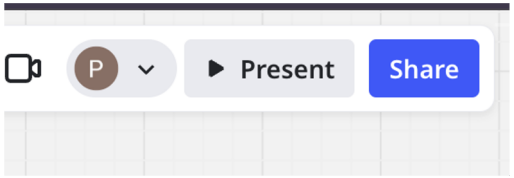
Project management tool
Miro Board

Features

- 💻 Free up to 3 boards, accessible, and team-friendly
- 📊 Perfect for managing college-level projects with clear visibility
- 🔁 Helps organize deliverables week-by-week with role assignments
- 🛠️ Encourages accountability and collaboration

How to use Miro for Project Management?

1. Sign up here **https://miro.com/**
2. Once you have an account, create a new board.
3. Choose the template **Kanban Framework,** when prompted
4. Add your teammates by sharing access to the board.



Kanban Framework

People

Search by name or email

Backlog | 4

Team A | 2

Type something

Type something

+

Team B | 2

Type something

Type something

+

In progress | 0

+

+

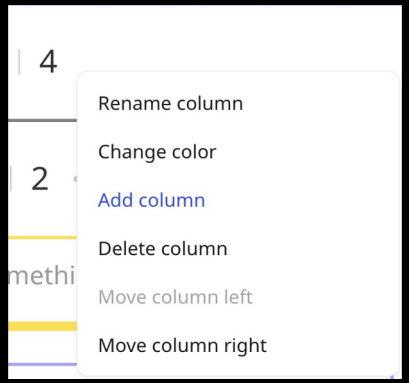
Done | 0

+

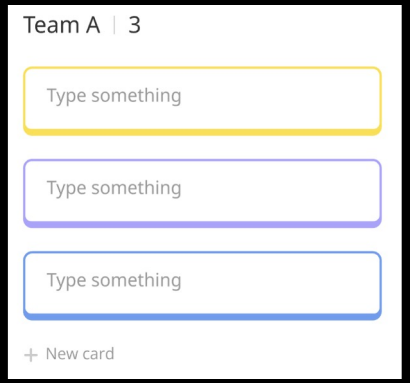
+

Add Details to Kanban Framework

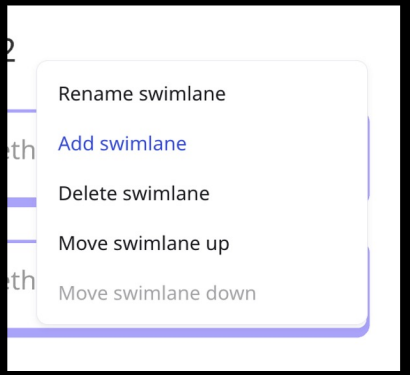
Find and add a member to the framework



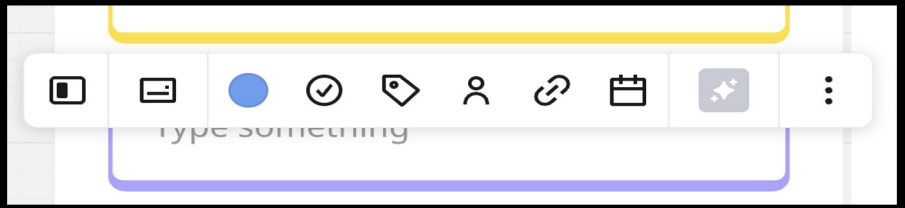
Add/delete a column or update it's name of location by clicking on 3 dots next to column name



Click on new card to add a new task/row in a column

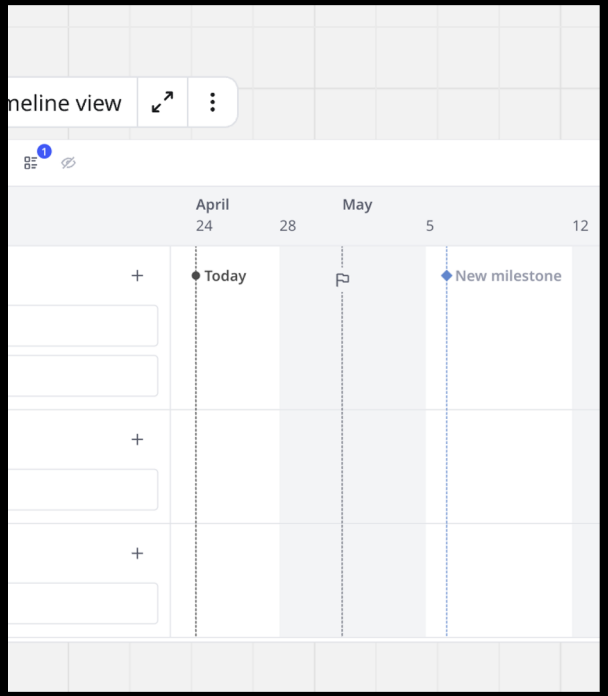


To add a new row for example a new week task list, click on 3 dots in last row and click on add swimlane

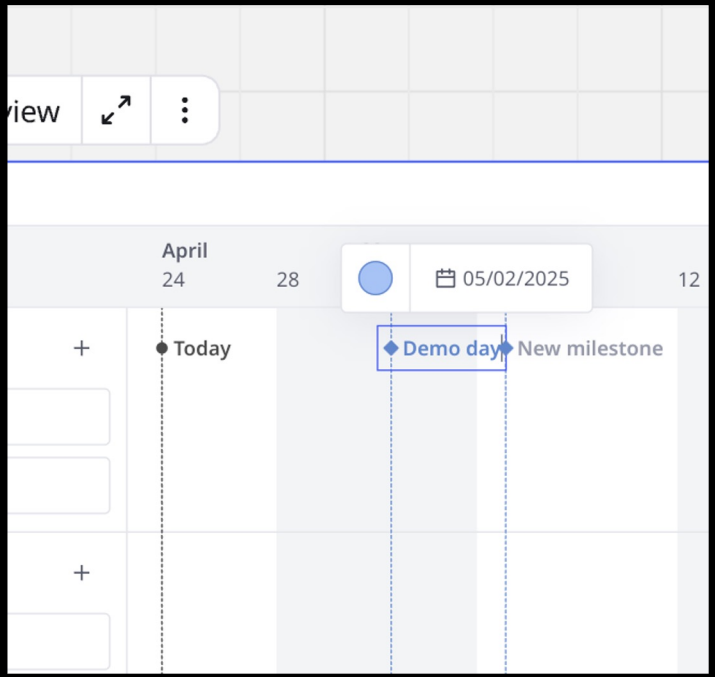


Click on any card, to assign it to any teammate, change color, add tags or assign start and end dates.

Add Details to Roadmap Planning

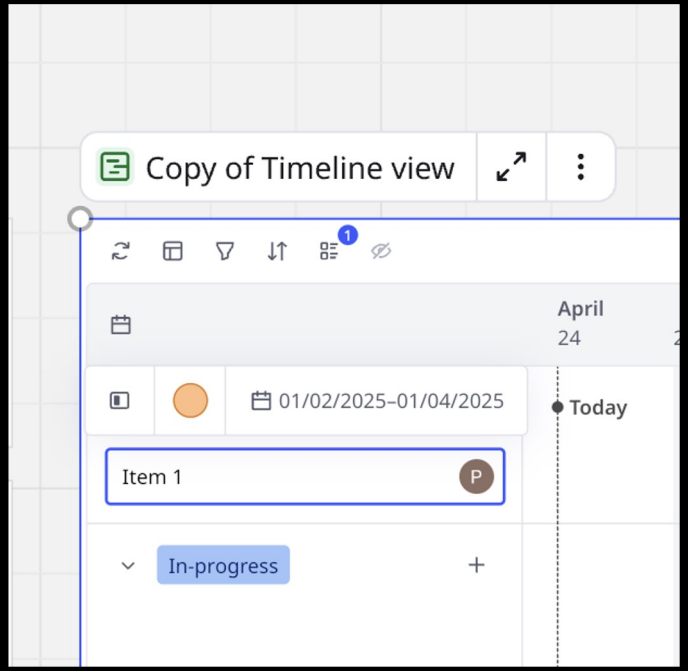


Hover over the timeline view on roadmap planning, you'll see a flag. Click at a point where you want to add a milestone.

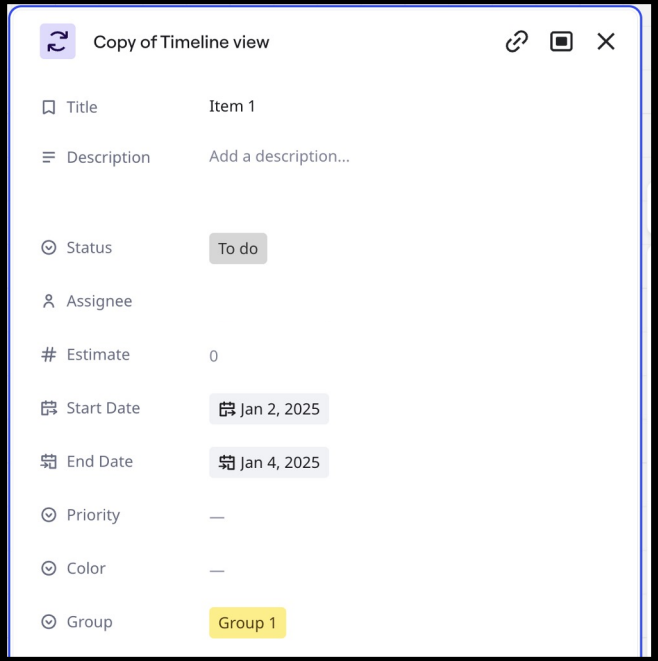


When you click on the flag, you'll be able to edit the name of the milestone

Add Details to Roadmap Planning



Click on an item and from the menu, click on first icon



A side panel will open. We can edit details here as required.

06

Task Breakdown

M1: Week 1- Week 4

- Team Formation
- Project Topic

Week 1

- Research
- Problem Statement
- Proposed Solution

Week 2

- Work Breakdown
- Project Timeline:
  - Start
  - End
  - Milestones

Week 3

- Tool Selection
- Technology use

Week 4

M2: Week 5- Week 8

Week 5	Week 6	Week 7	Week 8
• Task Allocation • Documentation Planning	• Version Control Setup • Initial Implementation	• Implementation Validation • Continuation	• Regression Test • Feedback Integration

M3: Week 9- Week 10

- Code Review
- Module Integration
- Testing
- Check Point & Feedback

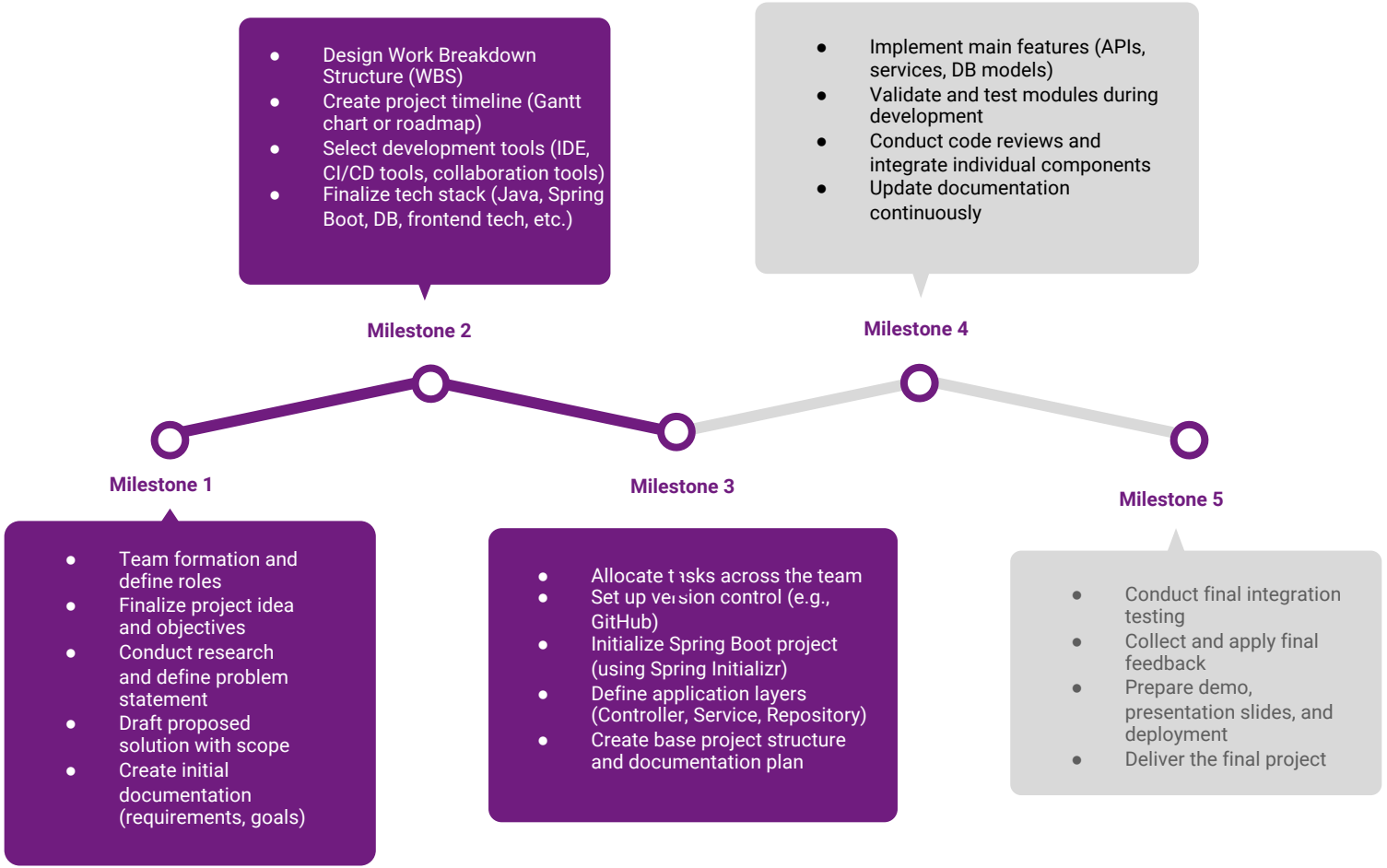
Week 9

- Feedback
- Final Presentation

Week 10

07

Milestones/Checkpoints


Milestone 1
Team formation and define roles
Finalize project idea and objectives
Conduct research and define problem statement
Draft proposed solution with scope
Create initial documentation (requirements, goals)
Milestone 2
Design Work Breakdown Structure (WBS)
Create project timeline (Gantt chart or roadmap)
Select development tools (IDE, CI/CD tools, collaboration tools)
Finalize tech stack (Java, Spring Boot, DB, frontend tech, etc.)
Milestone 3
Allocate tasks across the team
Set up version control (e.g., GitHub)
Initialize Spring Boot project (using Spring Initializr)
Define application layers (Controller, Service, Repository)
Create base project structure and documentation plan
Milestone 4
Implement main features (APIs, services, DB models)
Validate and test modules during development
Conduct code reviews and integrate individual components
Update documentation continuously
Milestone 5
Conduct final integration testing
Collect and apply final feedback
Prepare demo, presentation slides, and deployment
Deliver the final project

Links to Tools

- GitHub - https://github.com/
- Discord - https://discord.com/
- Slack - https://slack.com/
- Google Meet - https://meet.google.com/landing
- Zoom - https://www.zoom.com/
- Miro - https://miro.com/
- Jira - https://www.atlassian.com/software/jira

THANK YOU

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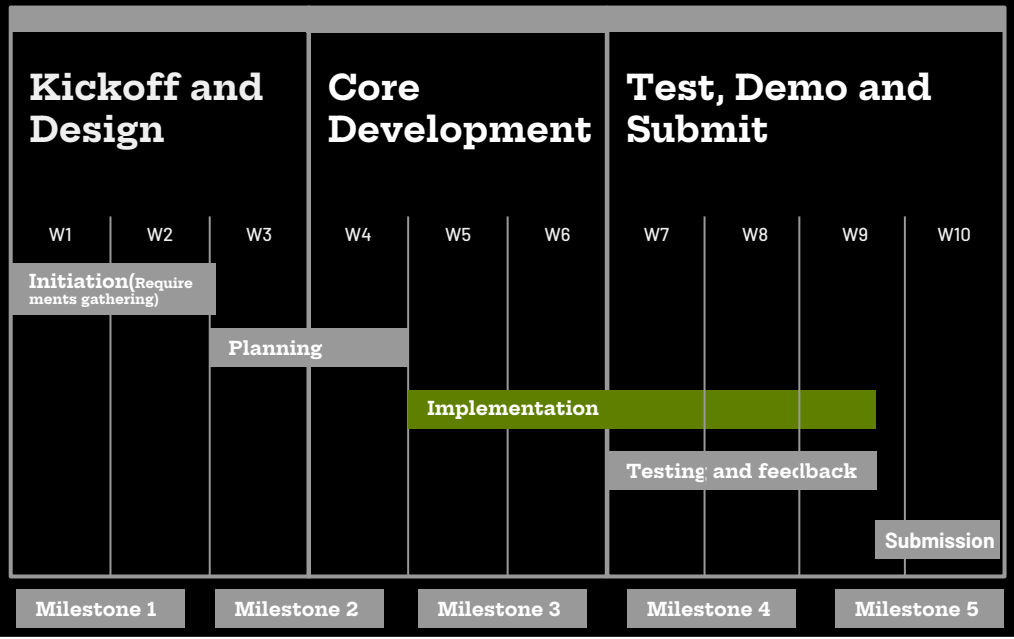
Students and faculty colleagues

Back Up Slides

Real World Project: Smart Study Buddy

Timeline


Kickoff and Design
Core Development
Test, Demo and Submit
W1
W2
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W9
W10
Initiation(Requirements gathering)
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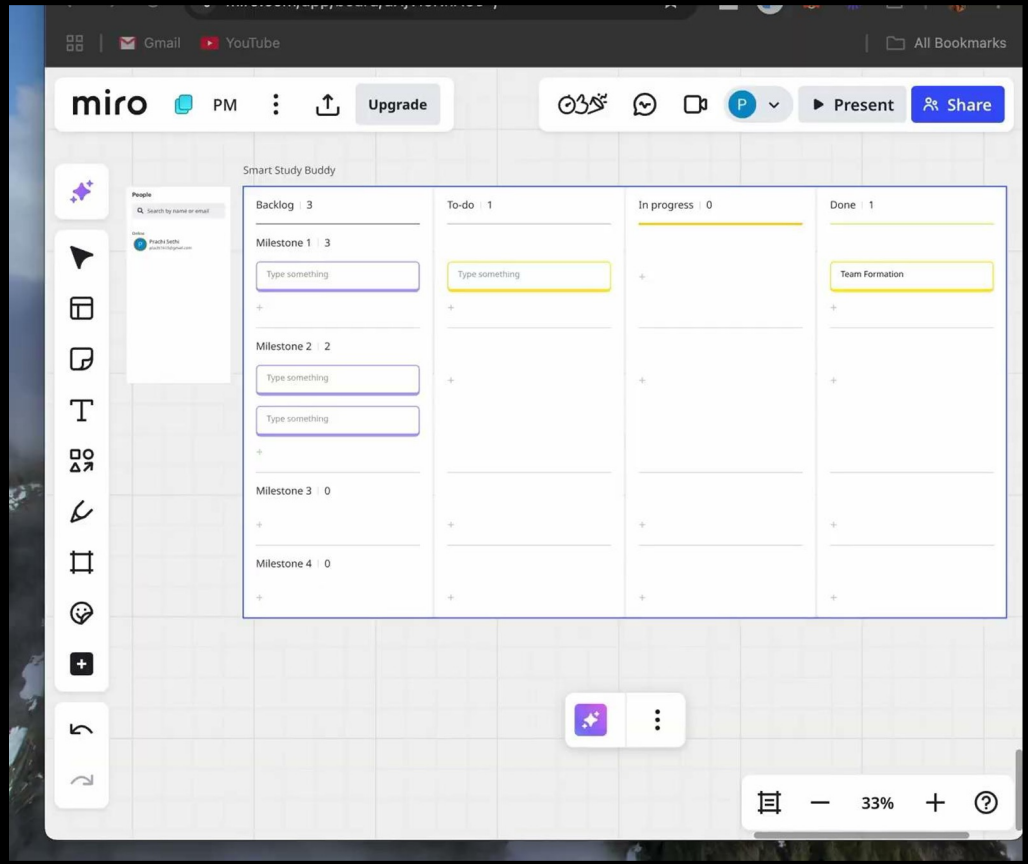
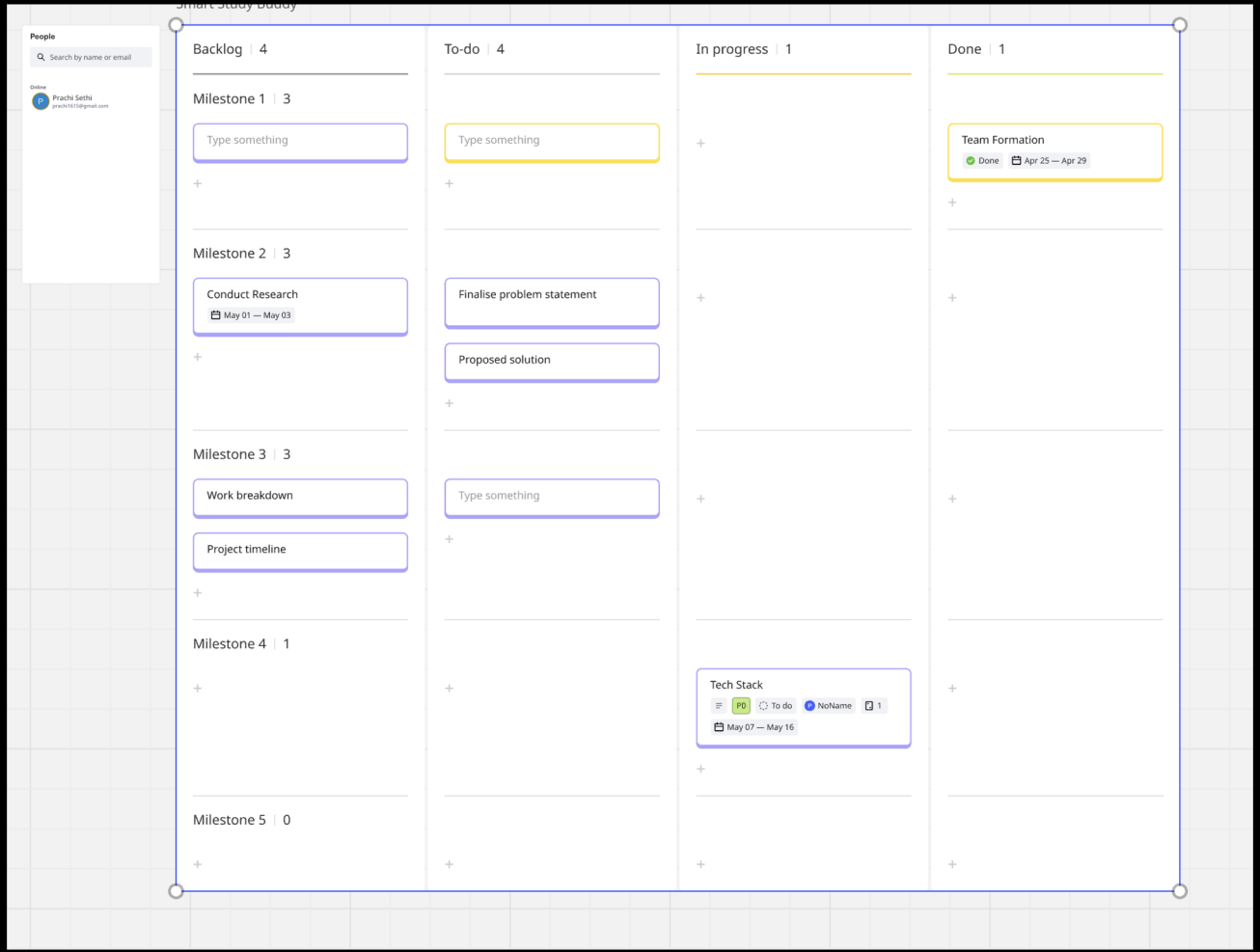
Step by Step Video to use Miro



Miro Board


People
Search by name or email
Online
Prachi Sethi
Backlog | 4
To-do | 4
In progress | 1
Done | 1
Milestone 1 | 3
Type something
Type something
Team Formation
Done
Apr 25 — Apr 29
Milestone 2 | 3
Conduct Research
May 01 — May 03
Finalise problem statement
Proposed solution
Milestone 3 | 3
Work breakdown
Type something
Project timeline
Milestone 4 | 1
Tech Stack
P0
To do
NoName
1
May 07 — May 16
Milestone 5 | 0

Week 1- Week 4

- Team Formation
- Project name
  - Smart Study Buddy

Week 1

- Conduct 5 peer interviews on individual study habits to understand the pain points
- **Problem statement**
  Students lack personalized, adaptive study schedules, leading to inefficient planning and last-minute cramming.
- **Proposed Solution**
  An AI-driven web app that auto-generates, syncs, and continuously refines personalized study plans based on courses, deadlines, and real-time usage.

Week 2

- Work Breakdown
  https://docs.google.com/document/d/1g42COAVDX1f7JGTKFce7AdfiDtWTF6X5yoN1zilz_PY/edit?tab=t.0
- Project Timeline:
  - Start Date - 1st Jan 2025
  - End - 15 Match 2025
  - Milestones

Week 3

Week 4 - Week 7

Select tech stack

- Frontend - Next.js
- Backend - Python (FastAPI)
- Database - MongoDB
- PM tool (Miro Board)

Week 4

- Start documenting
- Member 1 - front end
- Member 2 - database
- Member 3 - API integration

Week 5

- Version Control Setup - Git/GitHub
- Create login interface, schedule, courses interfaces
- Create ERD (Entity Relationship Diagram) diagram

Week 6

- Implement the database
- Expose API endpoints
- Sync your code to the GitHub repo
- Test existing modules

Week 7

Week 9- Week 10

- Implement Open Auth for managing user accounts
- Train your AI model and integrate it into your project
- Feedback Integration

Week 8

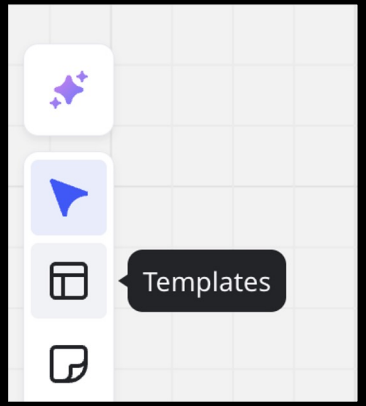
- Code Review
- Integrate frontend and backend
- Testing

Week 9

- Feedback
- Final Presentation

Week 10

Add a new template



Gantt Chart and Roadmap Planning templates can further be used to define milestones and plan more effectively.