

## Assignment #6 - Milestones, Timeline, and Effort Matrix

- Kshitij Maurya
- Saksh Menon

### Milestones List:

Milestone	Expected Completion	Description
M1. Requirements Definition Complete	Week 3	Finalize user stories, functional and non-functional requirements based on advisor feedback.
M2. System Architecture & Database Design	Week 5	Complete high-level system architecture (Design D0–D2) and finalize database schema.
M3. Backend API Prototype	Week 7	Deliver initial backend prototype including database connectivity and API endpoints for data retrieval.
M4. Frontend UI Mockups	Week 8	Produce interactive wireframes for semester planning, GPA view, and study group connections.
M5. Integrated Core System (MVP)	Week 10	Integrate backend and frontend for main features: course planning, GPA projection, and authentication.
M6. Testing & Refinement	Week 12	Complete all documentation, finalize presentation, and demonstrate functional prototype.
M7. Final Report & Presentation	Week 14	Complete all documentation, finalize presentation, and demonstrate functional prototype.

Project Timeline:

<b>Task No.</b>	<b>Task Description</b>	<b>Responsible</b>	<b>Start Date</b>	<b>End Date</b>	<b>Milestone Alignment</b>
1	Research existing academic planning tools	Saksh	Week 1	Week 2	M1
2	Specify system requirements	Saksh	Week 2	Week 3	M1
3	Design database schema	Kshitij	Week 3	Week 5	M2
4	Develop backend API endpoints	Saksh	Week 5	Week 7	M3
5	Implement GPA prediction module	Saksh	Week 6	Week 8	M3
6	Document database design and API	Kshitij	Week 5	Week 8	M3
7	Design user interface wireframes	Kshitij	Week 6	Week 8	M4
8	Develop frontend web interface	Saksh	Week 8	Week 10	M5
9	Integrate collaboration features	Saksh	Week 9	Week 11	M5
10	Test frontend usability	Saksh	Week 10	Week 12	M6
11	Implement authentication & authorization	Kshitij	Week 8	Week 10	M5
12	Validate degree compliance & prerequisite logic	Kshitij	Week 9	Week 11	M5
13	Integrate backend & frontend modules	Both	Week 10	Week 11	M5
14	Conduct end-to-end testing	Both	Week 11	Week 12	M6

15	Refine features and fix bugs	Both	Week 12	Week 13	M6
16	Prepare final documentation & presentation	Both	Week 13	Week 14	M7
17	Present final prototype	Both	Week 14	Week 14	M7

Effort Matrix:

Task No.	Task Description	Kshitij Maurya (hrs)	Saksh Menon (hrs)	Total (hrs)

1	Research existing academic planning tools	2	8	10
2	Specify system requirements	3	7	10
3	Design database schema	10	3	13
4	Develop backend API endpoints	2	10	12
5	Implement GPA prediction module	3	8	11
6	Document database design and API	8	3	11
7	Design user interface wireframes	10	2	12
8	Develop frontend web interface	3	9	12
9	Integrate collaboration features	2	8	10
10	Test frontend usability	3	7	10
11	Implement authentication & authorization	9	2	11
12	Validate degree compliance logic	9	2	11
13	Integrate backend & frontend modules	6	6	12
14	Conduct end-to-end testing	5	5	10
15	Refine features and fix bugs	5	5	10
16	Prepare final documentation & presentation	6	6	12
17	Present final prototype	5	5	10
<b>Total Hours</b>		<b>90 hrs</b>	<b>96 hrs</b>	<b>186 hrs</b>