

MILESTONES LIST -

Milestone	Description	Deliverables	Planned Completion
M1: Project Setup & Planning	Define overall system scope, finalize architecture responsibilities, and set up project repo and documentation framework.	Project Charter, Shared GitHub Repo, Task Assignments	Oct 15, 2025
M2: AWS Tech Stack Research & Architecture Design	Research AWS services (Bedrock, Transcribe, Polly, Lex, DynamoDB, etc.), compare alternatives, and design initial architecture.	AWS Architecture Diagram, Cost Estimate Report, Tech Stack Document	Nov 10, 2025
M3: FERPA Compliance & API Documentation	Research FERPA regulations, draft compliance plan, and summarize API documentation for Canvas, Google, and Microsoft.	Security & Compliance Doc, API Reference Guide, OAuth2 Flow Diagram	Nov 20, 2025
M4: MVP Architecture Finalization	Integrate AWS stack and compliance considerations into final MVP architecture (Semester 1 focus).	Final MVP Architecture Diagram, IaC Framework Proposal (CDK/Terraform)	Dec 5, 2025
M5: RAG Pipeline Design (OpenSearch)	Design RAG pipeline using OpenSearch with hybrid search (BM25 + dense embeddings).	RAG Pipeline Design Doc, Retrieval Benchmark Results	Jan 30, 2026
M6: ML Model Prototyping (Intent Classifier & NER)	Develop initial intent classifier and NER models using SageMaker; evaluate and tune for accuracy.	Trained Models, Evaluation Report, Model Cards	Feb 28, 2026

Milestone	Description	Deliverables	Planned Completion
M7: FERPA-Safe Dataset Curation	Build anonymized, FERPA-safe datasets from UC sources and synthetic data.	Data Pipeline Doc, Data Governance Notes	Mar 15, 2026
M8: Integration & Testing (Voice + Backend + ML)	Integrate AWS voice services (Transcribe, Polly, Lex) with backend orchestration and ML inference APIs.	Integrated MVP Demo, Testing Report	Apr 15, 2026
M9: Final Documentation & Presentation	Compile all deliverables into a final report and prepare demo presentation.	Final Report, Demo Video, Slide Deck	Apr 30, 2026

TIMELINE

Task	Start Date	End Date	Responsible Member(s)	Related Milestone
Project Setup & Team Coordination	Oct 5, 2025	Oct 15, 2025	All Members	M1
AWS Tech Stack Research	Oct 10, 2025	Nov 10, 2025	Tanishq	M2
Architecture Diagram & Cost Analysis	Oct 25, 2025	Nov 15, 2025	Tanishq	M2
FERPA Compliance Research	Oct 20, 2025	Nov 10, 2025	Sai Abhishek	M3
OAuth2 & API Docs (Canvas, Google, Microsoft)	Oct 25, 2025	Nov 20, 2025	Sai Abhishek	M3
MVP Architecture Integration	Nov 15, 2025	Dec 5, 2025	Tanishq, Sai	M4

Task	Start Date	End Date	Responsible Member(s)	Related Milestone
RAG Pipeline Design (OpenSearch)	Jan 5, 2026	Jan 30, 2026	Ansh	M5
ML Model Development (Intent + NER)	Feb 1, 2026	Feb 28, 2026	Ansh	M6
FERPA-Safe Data Curation	Mar 1, 2026	Mar 15, 2026	Sai, Ansh	M7
Integration (Voice + ML + Backend)	Mar 10, 2026	Apr 15, 2026	All Members	M8
Testing & Debugging	Apr 10, 2026	Apr 20, 2026	All Members	M8
Final Documentation & Presentation	Apr 15, 2026	Apr 30, 2026	All Members	M9

EFFORT MATRIX –

Task	Tanishq (AWS)	Sai Abhishek (Security/API)	Ansh (ML)	Total (100%)
Project Setup & Coordination	30%	30%	40%	100%
AWS Tech Stack Research	90%	5%	5%	100%
Architecture Diagram & Cost Estimation	80%	10%	10%	100%
FERPA Compliance & Security Plan	5%	90%	5%	100%
OAuth2 & API Documentation	5%	90%	5%	100%
MVP Architecture Integration	50%	30%	20%	100%
RAG Pipeline Design	5%	10%	85%	100%

Task	Tanishq (AWS)	Sai Abhishek (Security/API)	Ansh (ML)	Total (100%)
ML Model Development (Intent/NER)	5%	5%	90%	100%
FERPA-Safe Dataset Curation	20%	50%	30%	100%
Integration (Voice + Backend + ML)**	40%	20%	40%	100%
Testing & Debugging	33%	33%	34%	100%
Final Documentation & Presentation	33%	33%	34%	100%