AXIOMAI

WHEN ENGINEERING GETS TOUGH, WE BREAK IT DOWN

05/04/2025

BUSINESS PLAN

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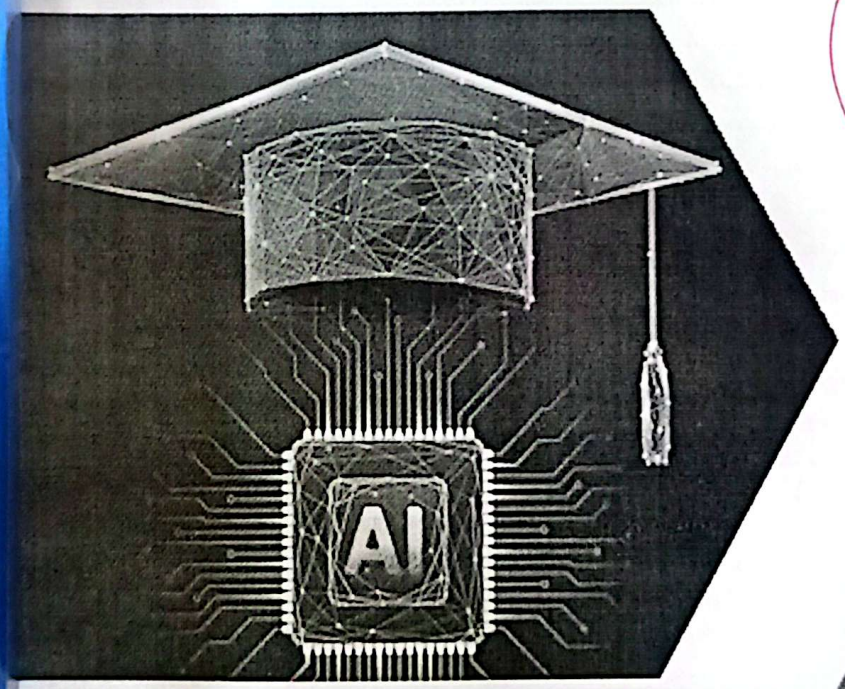

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Contents

1-Executive summary

Business Overview

AxiomAi is an AI-powered EdTech startup developed by a team of final-year Software Engineering students at **NUML University Islamabad**. Our mission is to **simplify complex engineering education** through the use of intelligent technology tailored to the specific needs of engineering students.

At its core, AxiomAi combines **natural language processing (NLP), deep learning, and video analysis** to transform how students engage with technical content—particularly on platforms like **YouTube**. Our tool automatically extracts complex terms and topics from educational videos and provides simplified, beginner-friendly explanations through an interactive interface. This bridges the gap between real-time video learning and traditional study aids like textbooks or notes.

We operate as a hybrid business:

1. **Product Offering**: A web-based learning platform and browser extension that integrates directly with YouTube videos.
2. **Service Model**: Licensing our AI tool to **EdTech platforms**, universities, and online course providers (B2B).

By focusing specifically on **engineering vocabulary and technical content**, AxiomAi aims to become the go-to AI assistant for millions of students struggling to understand dense concepts in fields like electrical, mechanical, and civil engineering.

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Business Goals

Short-Term Goals (Next 6–12 Months):

- Finalize MVP (minimum viable product) by late 2025.
- Conduct beta testing with NUML and selected partner institutions.
- Secure funding and incubator support based on early validation and academic backing.

Long-Term Goals (2–3 Years):

- Launch a full-fledged AI product with deep YouTube integration and an independent platform.
- Expand to mobile and tablet apps for easier student access.
- Establish licensing deals with EdTech companies and course creators.
- Become a recognized brand in AI-powered engineering education across Pakistan and globally.

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Opportunity, Solution, and Market Impact

The Opportunity

Engineering students often struggle to grasp complex technical terms and concepts while watching online lectures. Traditional learning tools like notes or textbooks fail to provide timely, on-demand support. Although platforms like **Khan Academy** and **Coursera** offer structured learning, they lack **real-time explanations for spontaneous questions** that arise during video learning.

Meanwhile, the **EdTech industry is booming**, with the global market expected to exceed **$773 billion by 2033**, and the **AI in education sector growing at a CAGR of over 38%**. There's also an increasing global push toward STEM education and personalized learning experiences—AxiomAi is positioned at the intersection of these trends.

The Solution

AxiomAi's proprietary platform analyzes YouTube videos or uploaded lectures, detects complex terms using NLP, and provides accurate, student-friendly explanations powered by AI models trained exclusively on **engineering textbooks, lecture materials, and research papers**.

Key features include:

- Clickable list of technical terms generated from video transcripts.
- AI-generated explanations customized to student knowledge level.
- Lightweight design for smooth interaction with video content.
- Optional content-saving features for review and quizzes.

Market Impact

AxiomAi will empower engineering students to **learn more independently and effectively**, improving academic outcomes and confidence in technical subjects. By partnering with universities and online platforms, we aim to integrate our technology directly into student workflows, both inside and outside the classroom.

In the long run, AxiomAi has the potential to become a **leading AI assistant** for technical education globally—supporting not just students but also educators and institutions seeking better engagement and outcomes.

2-Industry Analysis

Industry Overview

AxiomAi is part of the education technology (EdTech) industry, focusing on using artificial intelligence (AI) to help students learn better through videos. Our main goal is to support engineering students by making video lessons easier to understand using AI.

Market Size and Growth

The EdTech market is growing fast, worth about \$215 billion in 2024 and expected to more than triple by 2033. AI in education is a smaller but fast-growing part of this market, currently worth nearly \$6 billion and growing quickly. Online education is also expanding, with the market expected to nearly double by 2025. This shows a big opportunity for AI tools like AxiomAi that improve video learning.

Key Trends

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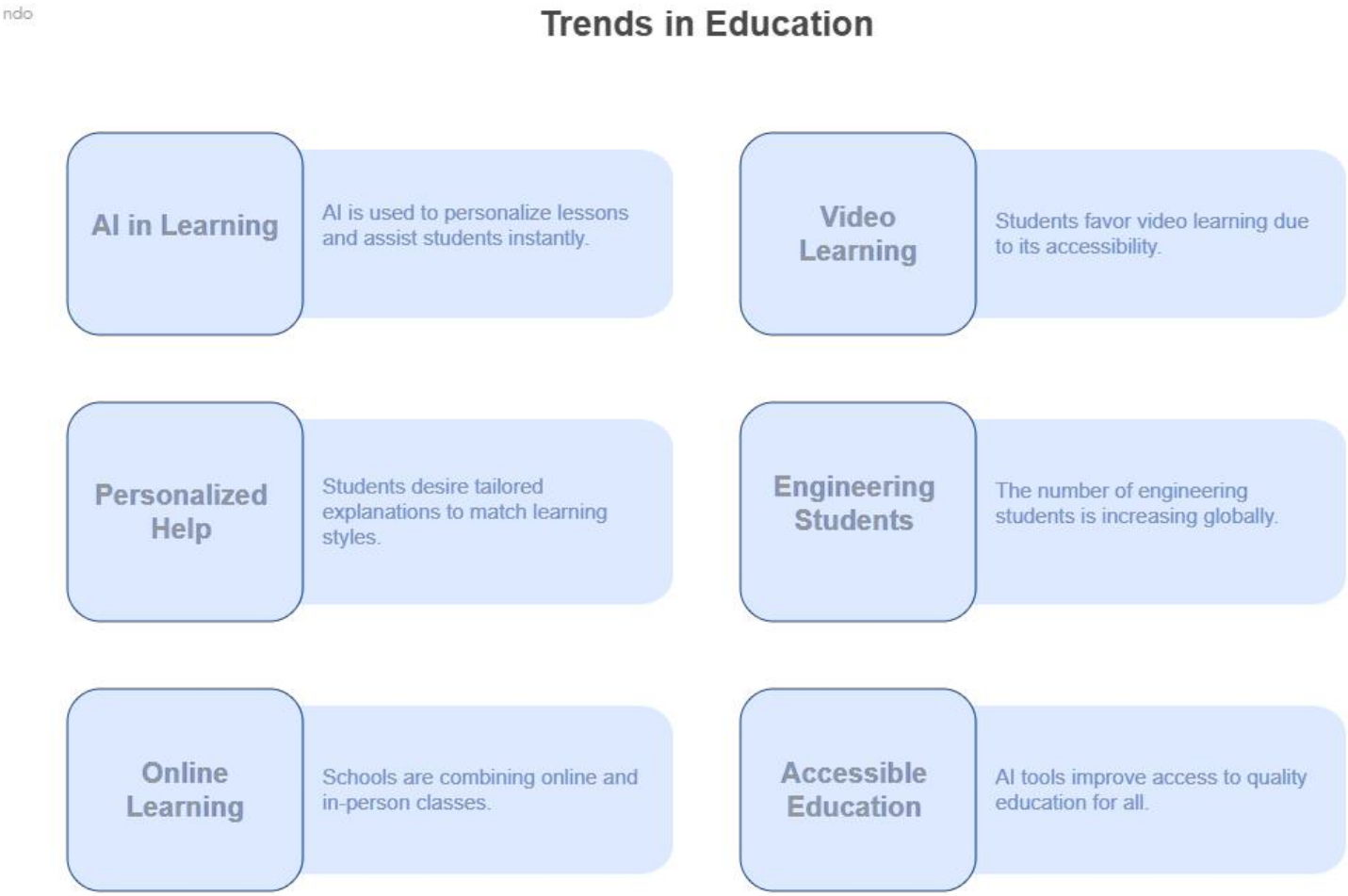


Competition

Big education platforms like Khan Academy and Coursera offer many courses but don't use AI to explain video content in detail. AI tutoring apps like Socratic give general help but aren't focused on engineering. There are a few startups trying similar ideas but not many. YouTube has lots of videos but doesn't offer AI tools to help students learn from them. This gives AxiomAi a unique chance to stand out.

Future Outlook

In the next few years, AI-based personalized learning will become common. New technologies will make learning even more interactive and helpful. Changes in platform rules may encourage more unique AI solutions like ours. As schools adopt new learning styles, tools like AxiomAi will be in high demand.

3-Company Description

Company Name: AxiomAi

Overview:

AxiomAi is an AI-driven education technology startup developed as a student-led project at NUML University Islamabad. Our company offers both a proprietary product and B2B services by integrating our AI module with YouTube and licensing it to online course providers. We focus on simplifying complex engineering education through innovative AI solutions.

Mission Statement:
Our mission is to simplify complex engineering education for students worldwide through an AI-powered platform specifically trained on technical and engineering data. By integrating seamlessly with video content and offering intuitive, real-time explanations, we aim to transform the way engineering is learned—making technical knowledge more accessible, interactive, and personalized for every student.

Products and Services:
Our flagship product is an AI-powered learning assistant tailored for engineering students. It analyzes YouTube videos to identify complex technical terms and displays them alongside the video in an interactive interface. Students can click any term to receive clear, AI-generated explanations suited to their learning level. Trained exclusively on engineering textbooks, research papers, and lectures, our system ensures high accuracy. The platform is designed to be lightweight and user-friendly, enhancing engagement and comprehension. Additionally, we plan to provide B2B licensing services to online course providers to integrate our AI capabilities into their offerings.

Current Development Stage:
Currently, AxiomAi is at the idea and prototyping stage, with ongoing efforts to develop a working AI model and user interface.

Legal Structure:
AxiomAi is a student team project formed by classmates at NUML University Islamabad, functioning as an educational entrepreneurial initiative.

Founding Date and Location:
The project was initiated on July 4, 2025, at NUML University Islamabad.

Strategic Partners:
No formal partnerships have been established yet.

Vision:
In the short term, we aim to deepen our understanding of AI development and secure investment within the next month to advance our prototype. Over the next two to three years, our long-term goal is to launch a full-fledged AI product and expand our B2B services, establishing AxiomAi as a key player in AI-powered engineering education solutions.

4-Market Analysis

Target Market Segmentation
1. Students (B2C):
- **Demographics:** University-level students (ages 18–26) in Pakistan and South Asia.
- **Academic Focus:** Engineering, computer science, and STEM disciplines.
- **Behavioral Traits:** Actively consume online video tutorials (e.g., YouTube), use digital tools like ChatGPT or Khan Academy, and seek help for complex course topics.

2. Institutions (B2B):
- **Universities:** Higher education institutions with existing LMS (Moodle, Canvas, Google Classroom).
- **Online Platforms:** MOOC platforms like Coursera, edX, and Pakistani edtech startups looking to enhance interactivity through AI.

Customer Profile & Buying Behavior
🎓 **Student Users (B2C)**
- **Pain Points:** Difficulty understanding complex engineering topics, limited access to personalized academic support.
- **Buying Triggers:** Simpler explanations, interactive tools, affordability, peer

recommendations.

- **Preferred Channels:** YouTube, Instagram, LinkedIn, university WhatsApp groups.
- **Buying Behavior:** Start with free trials or freemium tools, convert to premium after experiencing personalized support.

🏫 Institutional Clients (B2B)

- **Pain Points:** Low student engagement, lack of adaptive learning tools, need to modernize LMS.
- **Buying Triggers:** Easy integration, cost-effective solutions, improved student outcomes.
- **Decision-Makers:** Academic tech teams, department heads, edtech directors.
- **Sales Cycle:** Moderate (3–6 months), often includes demo, pilot, and approval phases.

Competitor Analysis

Competitor Comparison

Characteristic	Khan Academy	ChatGPT (OpenAI)	Perplexity AI	AI Video Summarizers
Strengths	High-quality content, brand trust	Versatile, available 24/7	Real-time answers, citations	Quick insights, saves time
Weaknesses	Not interactive, limited depth	Not video-specific, lacks structure	Not academic, no video integration	Misses context, not interactive

5-Economics of business

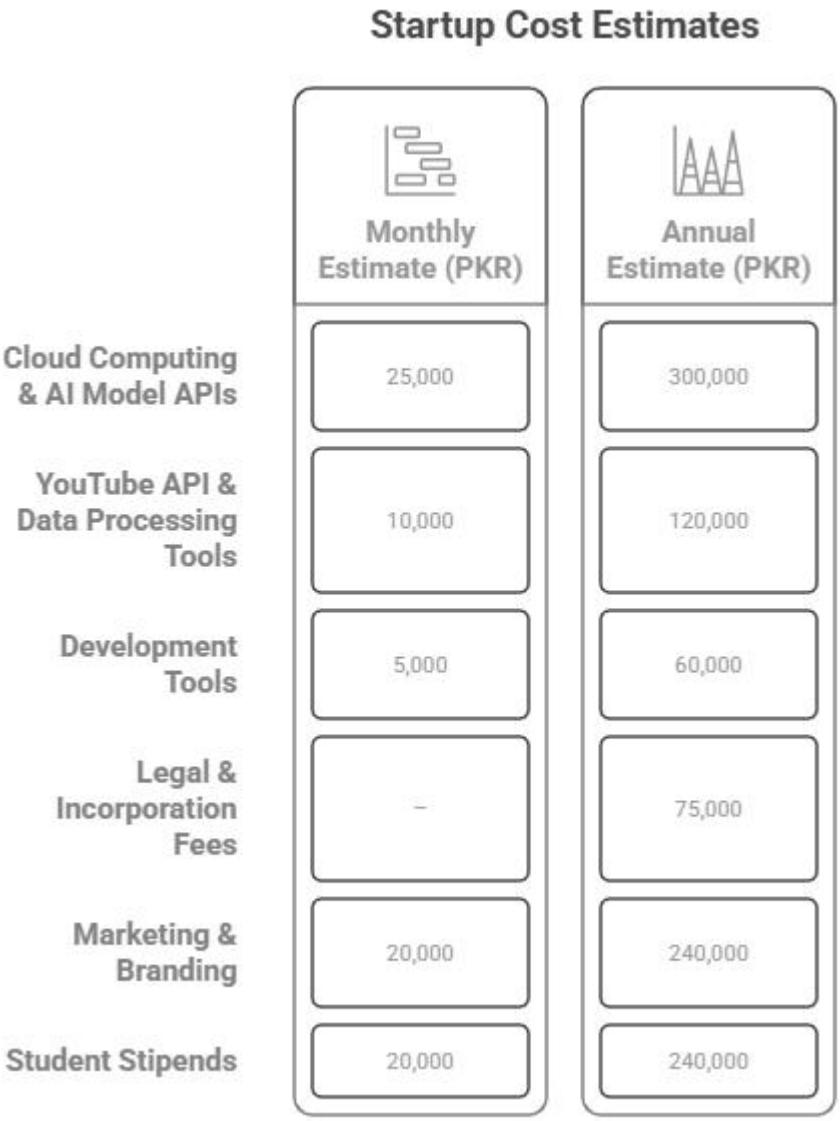
Revenue Model

AxiomAi will follow a hybrid monetization model to generate revenue through both direct users (students) and institutional partners (universities and course providers). This structure allows us to grow flexibly while addressing multiple customer segments.

Pricing model of Axiomai

Characteristic	Freemium (B2C)	Institutional (B2B)	Plugin Licensing	YouTube Tools
Description	Basic access, limited queries	University LMS integration	API for online platforms	Integration into educational channels
Features	Topic filtering, session saving	Volume and feature-based access	Access for small to mid-sized platforms	Fee-based tools, revenue sharing
Pricing	PKR 500/month, PKR 4,500/year	PKR 50-100 per student/month	Starting at PKR 200,000/year	Fee-based or revenue sharing

Cost Structure



Total Estimated Year 1 Cost PKR 1,035,000

Break-Even Analysis

The business can break even through either subscription sales or a small number of institutional contracts.

Option 1: B2C Subscriptions

- Monthly break-even: PKR 1,035,000 ÷ 12 = **PKR 86,250/month**
- At PKR 500/month per premium user, break-even requires:
  → **~173 monthly premium users**

Option 2: B2B Licensing

- Break-even achievable with:
  → **2 university partnerships at PKR 500,000/year each**

This provides flexibility to achieve financial sustainability through either direct users or enterprise deals.

6-Marketing Plan

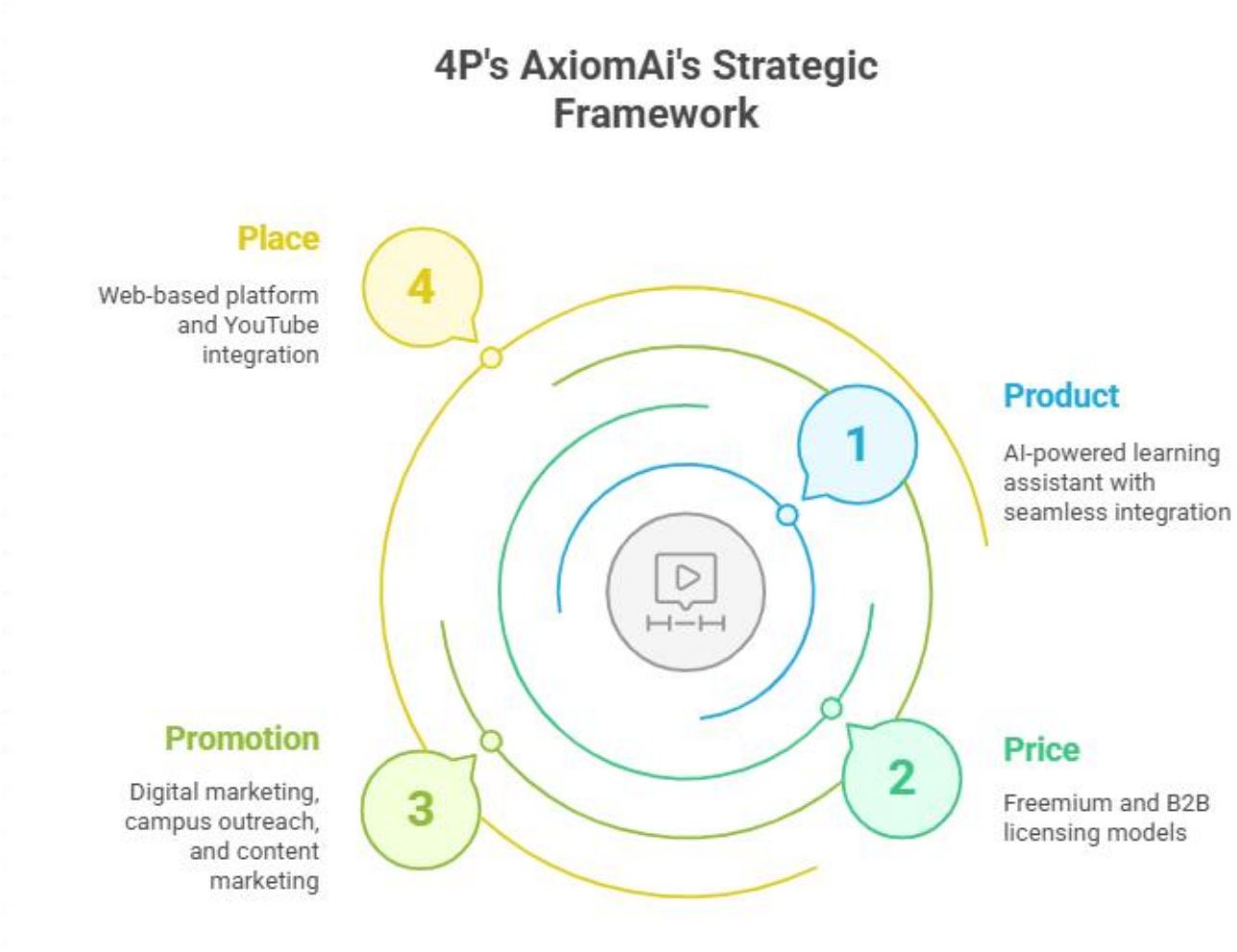
Marketing Strategy

AxiomAi's marketing strategy centers on positioning the platform as an **AI-powered learning assistant specifically tailored for engineering education**. Unlike generic AI tools or broad educational platforms, AxiomAi provides **targeted, real-time support for complex technical content**, integrating directly with video platforms like YouTube. Our goal is to attract both **engineering students** and **educational institutions** seeking smarter, more accessible ways to teach and learn technical subjects.

We will use a **two-pronged strategy**:

1. **Direct-to-Student (B2C):** Build awareness through online campaigns, student ambassador programs, and strategic content on platforms where engineering students already spend time (YouTube, Reddit, LinkedIn, Discord).
2. **Institutional & Platform Licensing (B2B):** Partner with online course providers, engineering colleges, and EdTech platforms for white-label or integrated AI services.

4P’s of marketing



Sales Process and Channels

B2C Sales (Students):

1. **Lead Generation:** Online ads, free trial sign-ups, email list building.
2. **Conversion:** Freemium-to-paid upgrade with in-app nudges and value-driven reminders.
3. **Retention:** Personalized dashboard, performance tracking, and gamified learning rewards.

B2B Sales (Institutions, Platforms):

1. **Outreach:** Direct email campaigns to EdTech companies, universities, and MOOC platforms.
2. **Demos & Pilots:** Offer integration pilots or trials to demonstrate impact on student engagement.
3. **Conversion:** Close contracts for licensing or API usage.
4. **Support & Expansion:** Dedicated onboarding, usage tracking, and upsell opportunities.

7. Design & Development Plan

Current Stage

The project is in the prototyping phase, with core features like video transcript analysis and term extraction under initial testing.

Development Roadmap

- **Q3 2025** – MVP development (YouTube integration, term identification, AI explanation engine)

- **Q4 2025** – Beta testing with students at NUML and other universities
- **Q1 2026** – Launch freemium version and pitch to institutional partners
- **2026–2027** – Expand platform, mobile app, and B2B integration features

IP Considerations

No formal IP filed yet; potential for copyright and trade secret protection for AI model and knowledge base.

Development Cost Estimate

Initial prototype estimated at ~$5,000–$8,000 using open-source tools and student developer input; future scaling will require investment in cloud infrastructure and licensed APIs.

8. Operations Plan

Location

AxiomAi operates from **NUML University Islamabad**, using on-campus resources for early-stage development, collaboration, and testing.

Technology Tools

The core technology stack for AxiomAi includes:

- **Natural Language Processing (NLP):** To extract technical terms from transcripts.
- **Neural Networks & Deep Learning:** Custom-trained models to generate simplified engineering explanations.
- **Speech-to-Text APIs:** For processing YouTube audio (e.g., Google Speech-to-Text).
- **Cloud Computing Platforms:** Such as Google Cloud or AWS for model training, API hosting, and scalability.
- **High-End GPUs:** Required for training deep learning models efficiently (e.g., NVIDIA A100 or RTX series).
- **Knowledge Base Curation Tools:** To organize textbook-based technical knowledge for AI training.
- **Front-End Stack:** Web technologies (React, JavaScript) for building the user interface.

Process Flow

1. **Video Input:** User plays a YouTube video or uploads their own.
2. **Transcript Generation:** Speech-to-text engine processes audio.
3. **Topic Extraction:** NLP model identifies and lists engineering terms.
4. **Explanation Generation:** AI model delivers user-level explanations for each topic.
5. **User Interaction:** Students click on terms, receive help, and save content for revision.

Facilities and Equipment

- **NUML AI Lab:** Used for research, model training, and testing.
- **NUML Incubation Center:** Provides office space, internet access, mentorship, and networking opportunities.
- **Shared Devices & Resources:** Access to university-provided GPUs, developer machines, and cloud computing credits (if available).

9. Management Team and Structure

Roles and Responsibilities:

Final-year Software Engineering students at NUML University Islamabad make up the founding team; each has a different set of abilities in AI development, UX design, project management, and academic research.

- **Project lead - Sadia:** manages the development timetable, coordinates team communication, and oversees the general direction of the product.
- **AI developer – Sheeraz Ali:** leads the design and training of AI models for transcript analysis and explanation generation.
- **Frontend Developer – Zain Ali:** Using technologies like React and JavaScript, builds and maintains the web-based platform and browser extension interface.
- **Backend Developer - Bilal Haider:** handles database integration, API development, and cloud deployment.
- **UI/UX Designer - Areeba Shahid:** Creates simple and accessible interfaces to improve the learning process.
- **Marketing & Outreach Coordinator – Hooria Sajid:** manages institutional outreach, student ambassador programs, email marketing, and social media campaigns.

Team Strengths:

- Experience in real-time AI applications and NLP.
- Access to academic mentorship and university facilities.
- Strong alignment between team skills and product goals.

Advisors:

- **Ms. Maryam Imtiaz (Faculty Mentor, NUML):** Expert in AI and Natural Language Processing with 15+ years of teaching experience. Advises the team on model development and technical direction.
- **Dr. Naveed (Innovation Coach, NUML Incubation Center):** Specializes in startup incubation and EdTech mentorship. Supports business planning, pitching, and market research.
- **Mr. Kamran Bias (Visiting Lecturer – Entrepreneurship):** Assists in business modeling, investor readiness, and identifying revenue opportunities.

These advisors were chosen based on their domain expertise, direct access to the team, and proven support for student-led innovations.

Board of Directors (Planned Structure):

Upon company registration, the proposed board will include a blend of internal team members and external professionals:

- Sadia Khan (Co-Founder & CEO)
- Dr. Naveed Iqbal (Technical Advisor)
- An external EdTech investor or industry representative (To be confirmed)
- Legal or financial advisor (To be appointed)

This structure ensures both technical oversight and strategic business governance.

Organizational Structure:

A flat, collaborative team structure during the initial development stage, transitioning into a more formal hierarchy post-launch with designated leads for technology, business development, and operations.

10. Milestone Schedule

Timeframe	Milestone/Event
Q2 2025	Finalize team structure, complete detailed business plan, and secure initial

	mentorship.
Q3 2025	Develop MVP with basic YouTube integration, AI term extraction, and explanation engine.
Q4 2025	Conduct beta testing with NUML students and selected institutions. Collect user feedback.
Q1 2026	Launch freemium version on Chrome Web Store. Begin institutional outreach for pilot partnerships.
Q2 2026	Secure first B2B licensing deal with a local university or EdTech provider.
Q3–Q4 2026	Expand features (mobile app, advanced analytics, multilingual support). Begin scaling user base.
2027	Establish AxiomAi as a commercial entity. Seek seed investment or grants. Scale operations nationally.