Integrated Chatgpt for Enhancing Student Assistance: A Dynamic Question and Answer System

By

Md. Jahangir Alam 011201304 Asif Al Zawad 011201297 Mirza Shemin 011183050 Mahmudul Hasan 011192022

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
UNITED INTERNATIONAL UNIVERSITY

Abstract

The traditional academic support system lacks a comprehensive and reliable platform for students to access accurate and timely responses to their academic inquiries. Students often face challenges during their exam preparation journey and struggle to find the necessary support to excel in their upcoming examinations. This project aims to revolutionize the way students access academic support by developing a comprehensive and reliable platform. By integrating ChatGpt, an AI Expert, and human expertise, the platform offers personalized assistance to students during their exam preparation journey. The methodology involves implementing a dynamic question-and-answer system that leverages state-of-the-art natural language processing techniques for effective matching of student queries with appropriate responses. The preliminary results demonstrate the platforms' success in providing reliable and personalized assistance, empowering students to overcome learning obstacles and achieve their academic goals. Overall, this project aims to revolutionize student access to academic support and enhance their exam preparation experience.

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Introduction

The world is developing rapidly. We are curious about the world around us. Time is a precious resource that we all wish we had more of. It seems like there's never enough time to complete everything we need to do. Searching for answers can be a time-consuming task, especially when you have to sift through numerous sources and weed out unreliable information. Our platform is designed with efficiency in mind, aiming to save you valuable time by providing you with accurate and relevant answers in a streamlined manner. Our website StudySage will reduce the need to conduct research across multiple platforms when it consolidates a large amount of knowledge in one place. Instead of spending hours searching the web, you can ask your own question and get a complete answer related to that question. By automatically sorting your search results, you can save a lot of time and focus on other tasks. Rather than spend hours watching the web, you can ask your own question and receive a complete answer that is relevant to your questions. It saves you a lot of time and lets you concentrate on more tasks and obligations by automatically sorting out the search results.

Exploring a vast ocean of information as a student can be both exciting and overwhelming. They experience complex concepts, struggle with assignments, and have fundamental burning questions that require skilful guidance. This is where we come in, bridging the gap between student requests and the capabilities of human experts.

On StudySage, you will be presented with a dedicated team of experienced professionals in various fields. These professionals are energetic and mostly inherit the craft. They strive to provide concise, intelligent answers tailored to your specific needs. Unlike auto responder, the human touch ensures a personalized approach that takes into account the user's particular perspective and learning style.

1.1 Project Overview

Students who are looking for solutions to their questions, we wish to develop a platform. We think the project addresses the flaws in the traditional academic support system by developing a detailed and reliable platform for students to receive accurate and prompt

responses to their academic questions. The technology combines Chatgpt, an AI Expert, and human knowledge to offer students personalized assistance as they prepare for tests. In order to achieve its objectives, the project will take a multi-step approach. In order to ensure a wide range of topics and precisely labeled data, a comprehensive data set of questions and related answers will first be gathered from a variety of trustworthy sources. The automated conversation system will be trained and tested using this data set as its basis. The findings of this study have important ramifications for a number of areas, including customer service, education, and the sharing of general information. The project intends to improve information accessibility and user engagement by offering a user-friendly question-answering website with an automated chat system, ultimately promoting more effective and efficient knowledge sharing. Thorough testing and evaluation will be done throughout the development process to judge the system's performance in terms of accuracy, response time, and other factors. We'll gather user feedback and conduct usability tests to find possible areas for improvement and adjust the system accordingly.

1.2 Motivation

Students need to wait for a specific time to take counselling from a teacher or they need to wait for the availability of a teacher which is time consuming for a student. Student can find problem solution by one click in Q/A site. They just have to write the questions and AI chatbot will answer their questions. If there is human expert who will also answering questions, provided by students it will be beneficial for them. They are getting two options for preparing their study. If they need instant text based and early explained quick answers they can choose AI expert. Additionally, we will have a team of human experts who will be available to address more complex or specialized queries, providing personalized and in-depth assistance. Students can take the advantages of this platform to find answers to their desired academic questions. This platform encourages self-dependent learning. Students can take exam preparation by questioning, they can access the question answering website to fortify their understanding of final topics. They will simply ask questions and get answers of a topic. ChatGPT can generate human like responses with high level of accuracy. One of the highlighted features of ChatGPT is it can adapt responses dynamically based on the user's input. ChatGPT has been trained on a wide range of dataset, texts, books, websites and other text-based sources. This vast pre-training system allows the model leads to more relevant and informative responses. The novelty of Chegg's lies in its integrated educational platform, study guide online tutoring and other writing services. The study targets to provide valuable perception into students. The target audiences are students of all type of educational levels. They can clarify their concepts and improve their self learning experience among several subject.

1.3 Objectives

- 1) Integrating AI Expert with ChatGPT, to offer instant and precise responses to student queries.
- 2) Combine the capabilities of AI Expert with human expertise to provide holistic and insightful assistance.
- 3) Create a collaborative learning environment where students benefit from both AI and human insights.
- 4) Develop a comprehensive platform that caters to diverse learning needs and enhances students' academic journey.

1.4 Methodology

The AI model will be Supervised learning trained with Prompt & LLM and will answer queries of students.

Integration of ChatGPT AI Expert:

- Implement ChatGPT through the OpenAI API to provide instant answers to student queries.
- Develop a query-processing system that sends student questions to ChatGPT, retrieves responses, and presents them through the user interface.

Human Expert Involvement:

- Establish a team of human experts who can address complex or specialized questions that ChatGPT may not handle effectively.
- Create a process for routing questions beyond ChatGPT's capabilities to human expert

1.5 Project Outcome

We will create an automatic user interface for searching and generating answers. Human Expert will provide answers in a specific time and AI expert will give instant responses and reliable answers. Study materials (students can search and download study related materials), Subscription plans and customer support services these are additional features.

1.6 Organization of the Report

• Chapter 1: The introduction part In this chapter we introduce to our website. This chapter provides objectives, methodology and project outcome related to the project.

- Chapter 2: The Project background Literature review and gap analysis part. In this chapter comes up with current and previous research related to the topic. It evaluates theories for the research. This chapter identify gaps and controversy surrounded by the field.
- Chapter 3: The Project Design part. In this chapter it gives an overview about the website about how it would look like. Using context diagram, Data flow diagram and UI design we will show how will be the website design.

Background

We studied some papers, and below is an overview of those papers We allocated papers into two parts, summary of the papers and some of the gaps that we may try to improve. We also reviewed some similar application.

2.1 Preliminaries

StudySage is a platform with Human and AI chat system. It will be an on demand online platform. Student will get to post a question and in a specific time there will be Human expert who will be answering of those questions. Using Question Answering platform can be useful for students. It will help students to accomplish better grades and save time. Every student has their own purpose and need. AI and Human based chat system will allow students to take governance of their independent study. We want to give a platform that can enhance students self knowledge. If a student get stuck in some point of their studies or they need answer of a query AI expert will give assistance and guidance to students so that they can improve in their self learning. Why we are creating this website? Because of its high demand. If we do market analysis then we can understand how demand able can be a question answering website is!

From the point of view of AI chat system, According to Reuters[1] in just 2 months Chatgpt drastically reached to 100 million active users. Chatgpt made less than 10 million USD but in 2023 it generates revenue of 200 million USD and 1 billion USD by 2024.

From the point of view of Human chat system, Chegg annual revenue in 2023 maximum is 750M [2]

Our country does not have this kind of platform, we want to create a variant of modern education system, if we can bring this kind of platform in our country it would be beneficial for the students and as well as for the education system.

2.2 Literature Review

We studied papers related to education AI and more topic related to our field of work.In the tables below 2.1 and 2.2 we have given some of the summary of these papers.

Table 2.1: Summary of review.

No	Name	nmary of re Paper	Summary		
1	The Leveraging Large Language	[3]	The research investigates the utilization of		
1	Models for Multiple Choice Ques-	[9]	Large language models (LLMs) in the con-		
	tion Answering.		text of responding to multiple choice ques-		
	tion Answering.		tions (MCQs).		
			compares the effectiveness of multiple choice		
			prompts (MCP) versus cloze prompts (CP).		
			It discuss prompt engineering, data analysis,		
			prompt design, prompt evaluation, prompt		
0	mi T , , , 177, 175 ,	[4]	refinement, and provide insights.		
2	The Interactive and Visual Prompt	[4]	The paper introduces PromptIDE, a tool for		
	Engineering for Ad-hoc Task Adap-		developing prompts in ad-hoc natural lan-		
	tation with Large Language Models.		guage processing tasks.		
			It enables prompt variation exploration, vi-		
			sualization of prompt performance, and iter-		
			ative prompt optimization.		
			The paper highlights feedback received, in-		
	A	[=]	cluding UI improvements.		
3	Attributed Question Answering:	[5]	The paper introduces attributed question an-		
	Evaluation and Modeling for At-		swering, where a system provides both an an-		
	tributed Large Language Models.		swer and an attribution to a source document.		
			The authors analyze different system archi-		
			tectures retrieve-then-read, post-hoc retrieval		
			and end-to-end modeling.		
			Additionally, they introduce an automatic		
	TX71 4 · C 41 1 · 1 · 1 · 1 ·	[6]	metric.		
$\mid 4 \mid$	What if the devil is my guardian an-	[6]	This paper explores the concerns surrounding		
	gel: ChatGPT as a case study of us-		the implementation of the new AI-powered		
	ing chatbots in education.		chatbot(ChatGPT) in the field of education.		
			The study revealed that ChatGPT has the		
			ability to revolutionize education in various		
			ways.		
			Moreover, near future by integrating "collab-		
			orative intelligence" through ChatGPT and		
			human tutors, it is possible to bring about a		
			positive outcome and revolutionize the edu-		
			cation system.		

Table 2.2: Summary of review.

NT			building of feview.			
No	Name	Paper	Summary			
5	Online Learning Platforms: Re-	[7]	In this paper, the author examines the significance			
	constructing Modern Higher		of online learning platforms in modern education.			
	Education.		It highlighted the need to introduce these sys-			
			tems into the educational process to enhance con-			
			venience and disseminate higher education.			
6	Question Generation For Q/A	[8]	This paper shows 2 methods for generating ques-			
			tions from a given passage those are: CNN and			
			RNN. They presented how generated questions can			
			be useful in improving question answering systems.			
7	Impact of ChatGPT on educa-	[9]	This research paper points chatGPTs ability, how			
	tion		chatGPT can help in education, first 3 months of			
			its release many controversies occurred regarding			
			chatGPT's capabilities. Most of the time Chat-			
			GPT can provide strong suggestions, study related			
			materials to students but there is a probability of			
			chatGPT can misguide them by providing false in-			
			formation.			
8	Examining Science Education	[10]	This research assesses the potential influence of			
	in ChatGPT	' '	generative artificial intelligence (AI), particularly			
			ChatGPT, within the educational domain. It cen-			
			ters around three key domains: ChatGPT's perfor-			
			mance in addressing science education inquiries, its			
			integration into science teaching strategies, and its			
			utility as a research instrument along with evalua-			
			tions of its efficacy, all approached through a self-			
			study methodology.			
9	Use ChatGPT to Solve Pro-	[11]	This study explores the application of ChatGPT,			
	gramming Bugs		a language model, for tackling programming bugs.			
			It assesses ChatGPT's potential in aiding debug-			
			ging, bug prediction, and bug explanation, while			
			highlighting the need for supplementary tools to			
			validate predictions and explanations. The paper			
			also delves into ChatGPT's constraints when ad-			
			dressing programming bugs.			
			drossing programming bugs.			

2.2.1 Similar Applications

There are some similar software currently in the world that are similar to our project like.

- Chegg: Chegg stands as an American educational technology firm specializing in digital and physical textbook rentals, online tutoring, and a range of student services. Its mission centers on enhancing the overall educational journey for students.
- Course Hero: Course Hero operates as an online learning platform where members can access an extensive collection of course-specific study resources exceeding 20 million, contributed by a community comprising both students and educators. These resources encompass study guides, notes, research papers, and more.
- Study.com: Study.com serves as an online learning hub designed to support students of all age groups in pursuing their educational objectives. The platform offers a comprehensive library housing more than 10,000 engaging video lessons, which students utilize to bridge gaps in their understanding, prepare for significant exams, and more.
- Quizlet: Quizlet offers interactive and tailored learning activities, shaped by contributions from individuals worldwide. It serves as a space where users can craft sets spanning various subjects and topics, or opt for selections from a vast repository already established by other Quizlet users.
- Bartleby: Bartleby operates as an online platform granting students access to an extensive array of textbooks and homework solutions. It further provides round-the-clock expert assistance on demand and a math-solving tool for swift resolutions to even the most challenging math problems. The platform's aim centers on expediting homework completion, enabling students to allocate more time to their sources of happiness.
- Enotes: Enotes.com functions as an educational website, offering a diverse range of resources tailored for both educators and students. The platform presents expert-authored summaries and analyses, while queries are addressed by genuine educators. Enotes seeks to empower students by facilitating engagement with any literary work or subject-related inquiry.

Existing question-answering software, provide answers to student inquiries but lack an AI assistant capable of solving problems instantly or within a few seconds. These apps often require users to wait for a duration of time until another expert solves the question, leading to potential delays in receiving assistance.

2.2.2 Related Research

Online learning platform is drastically expanding. ChatGPT's capability is to imitate human language. It can do numerous tasks within a few seconds. It can write code, it can solve academic and sometimes non-academic questions. ChatGPT improves self learning experiences. ChatGPT act like tutor to students. Stack overflow for a decade it has been the go-to site for problem solving but now users can just ask chatbot to check bug or write code in their own formation.

ChatGPT has the ability to revolutionize education in various ways, near future by integrating "collaborative intelligence" through ChatGPT and human tutors, it is possible to bring about a positive outcome and revolutionize the education system.

Chegg has textbook renting system, it helps students by providing homework help. It provides students online tutoring and other academic services. There are some other platforms that gives solutions to students. Q/A websites focuses on the educational purposes. It tackles how students can improve in their study, it concentrate on how study can make easier to students. Basically student will ask some specific question and AI will generate answer to the related topic and there will be another option for asking questions where students will post a question and within a specific time there will be a human expert who will be answering of those questions[12].

2.3 Gap Analysis

We studied papers related to education AI and more topic related to our field of work. In the tables below 2.3 and 2.4 we have given some of the gap these of these papers that we will try to improve.

Table 2.3: Gap analysis.

N.T.		Gap analysis.			
No	Name	Paper	Gap		
1	The Leveraging Large Language	[3]	Open-ended questions: Doesn't include		
	Models for Multiple Choice Ques-		open ended questions		
	tion Answering.		User experience and engagement: The		
			system only focused on testing but automa-		
			tion. But it did not have any real user.		
2	The Interactive and Visual Prompt	[4]	Quality assurance: Although it focused		
	Engineering for Ad-hoc Task Adap-		on prompt performance it did not include any		
	tation with Large Language Models.		prompt quality or the quality of the answers		
			Hybrid model: Does not include a user		
			answer system.		
			Not a student platform: Does not have		
			prompts to benefit the students.		
3	Attributed Question Answering:	[5]	Customized Evaluation Framework:		
	Evaluation and Modeling for At-		They do not account for the specific require-		
	tributed Large Language Models.		ments of student-based web platform		
4	What if the devil is my guardian an-	[6]	Methodological limitations: The paper		
	gel: ChatGPT as a case study of us-		only considers three sources for data analysis		
	ing chatbots in education.		(tweets, interviews, and user experiences)		
			Unanswered research questions: The		
			paper lacks a comprehensive explanation of		
			how to design responsible chatbots or human-		
			ized chatbots.		
5	Online Learning Platforms: Re-	[7]	Online Learning Platforms: Reconstruct-		
	constructing Modern Higher Educa-		ing Modern Higher Education.		
	tion.		No description or analysis of the nega-		
			tive/mental impact on students.		
			Not clarifying the verification of online test-		
			ing to ensure its integrity and authenticity		
6	Use ChatGPT to Solve Program-	[11]	Identify the scope for examination and define		
	ming Bugs	' '	the objectives to achieve.		
	O — ~~O~		Define the desired future state.		
			Assess the present condition.		
7	Question Generation For Q/A	[8]	Diagram of the model: Lack of a easy to		
'	adesiron deneration for Q/A	[^O]	understand diagram of the model.		
			understand diagram of the model.		

Table 2.4: Gap analysis.

No	Name	Paper	Gap
8	Impact of ChatGPT on education	[9]	Heavy text: This paper is very text heavy
			in my opinion. It could be made in a more
			illustrative and eye-catchy way.
9	Examining Science Education in	[10]	Identify the current state of department.
	ChatGPT		
			Assess the present condition of the depart-
			ment. Initiate the implementation of the plan
			and monitor its advancement: At this junc-
			ture, proceed with the execution of your plan
			and regularly assess its status. Ensure that
			you have allocated ample resources for exe-
			cuting the plan and have effectively commu-
			nicated it to all members of your organiza-
			tion.

2.4 Summary

StudySage will be on demand platform with Human and AI chat system. Students will ask specific questions and human expert will answer those questions in a specific time. Besides there will be an AI expert who will provide instant answering of some questions asked by the students. In 2023 Chatgpt generated revenue of 200 million USD and chegg annual revenue in 2023 maximum is 750 million. We want to create this platform to help students[13].

There are some similar applications chegg, course Hero, Study.com, Quizlet, Batrleby, Enotes. Existing question-answering software, provide answers to student inquiries but these systems are lagging in AI assistant capabilities of solving problems instantly or within a few seconds. ChatGPT's capability is to imitate human language. It can do numerous tasks within a few seconds. It can write code, it can solve academic and sometimes non-academic questions. ChatGPT improves self learning experiences. ChatGPT act like tutor to students. Chegg has textbook renting system, it helps students by providing homework help. It provides students online tutoring and other academic services. There are some other platforms that gives solutions to students. Q/A websites focuses on the educational purposes. It tackles how students can improve in their study, it concentrate on how study can make easier to students. Basically student will ask some specific question and AI will generate answer to the related topic and there will be another option for asking questions where students will post a question and within a specific time there will be a human expert who will be answering of those questions.

Project Design

In this part we have talked about how the project should be designed for development. Also who might be the probable stakeholders of this application. there is also diagram overview of the project and how it may work and process data.

3.1 Requirement Analysis

Problem Statement: A teacher cannot give 24 hours of teaching service to a student. students need to wait for the counselling hour or the availability of the teacher to solve their problem, which is time-consuming.

Validation: Assess system effectiveness in addressing student queries and providing personalized assistance through user testing and feedback.

Verification: Ensure system reliability and accuracy by rigorously testing AI algorithms and human-expert interactions, with a focus on adherence to predefined standards.

Scope Definition:

- **Objective:** To develop a dynamic question and answer system that enhances student assistance by integrating AI Expert (ChatGPT) and human expertise.
- Features: The system will allow students to ask questions, receive instant AI-generated responses, and access personalized assistance from human experts.
- Limitations: The system will transparently communicate its intended use and the limitation will be initially the system will be fully based on availability of OpenAI API.

Stakeholders:

• Students

Administrators

• Human experts

• Finance team

3.1.1 Functional and Nonfunctional Requirements

Functional requirements

- Authentication: Students can login securely. There will be password retrieval system, if a student forgets their password they can change it and set a new password.
- User profile: Student can edit and update their profile we will make sure only they can edit and update their profile.
- Study materials: There will be a section for study materials. Student often need study materials to study from. Whenever a student needs a material they can search from the available materials and download it.
- Post question: If a student needs help to prepare for their exam they can come to our website and take help from human expert by posting relevant questions, our human expert will give reliable answer of their questions in a specific time.
- User friendly interface: A question answering website should have a user friendly interface with clear instructions so that they can easily find what they are looking for.
- AI Expert: There will be another section open for students AI Expert. AI expert will be answering of the questions asked by the students.
- Comment: Students can discuss about questions and answers by commenting.
- Admin profile: Admin can have all the authority including edit a user, edit comments and edit questions.

Non-functional requirements

- Security and Privacy: We will give a secure website to students and maintain their privacy.
- **Performance:** StudySage will be responsive with minimal loading time and answer fast.
- Usability: Our website will have simple interface with clear instructions we will make the UI as friendly as possible, students will login to our website and post questions and get answers.
- Reliability: Its most important that a student get reliable answer from our Human and AI expert otherwise the website has no value so we will ensure that students get reliable answer as soon as possible every time.
- Compatibility: Our website should be compatible with all devices and we will ensure that StudySage will be responsive.

3.1.2 Context Diagram

The figure below 3.1 shows the context diagram for StudySage.

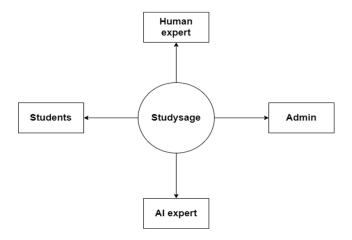


Figure 3.1: A figure of Context Diagram

3.1.3 Data Flow Diagram Level 1

The figure below 3.2 shows the Data Flow Diagram Level 1 for StudySage.

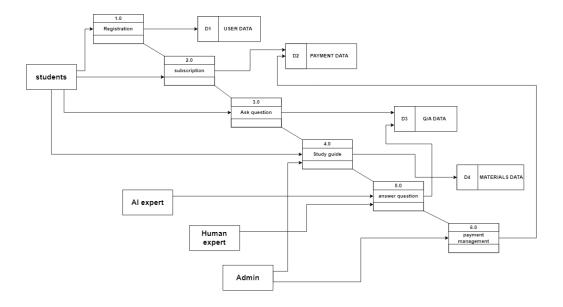


Figure 3.2: A figure of Data Flow Diagram Level 1

3.1.4 UI Design

The figures below 3.3 - 3.6 are the UI design for StudySage.

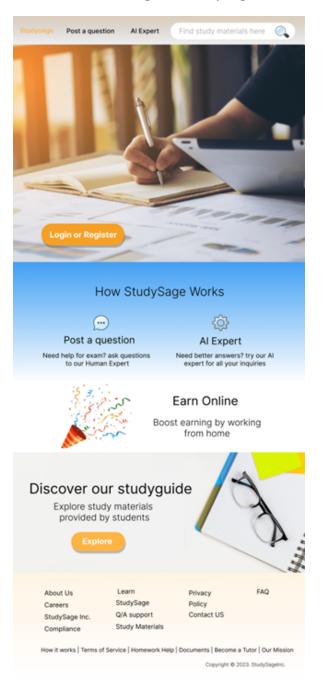


Figure 3.3: A figure of User Interface

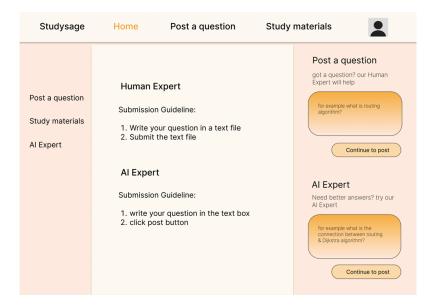


Figure 3.4: A figure of User Interface

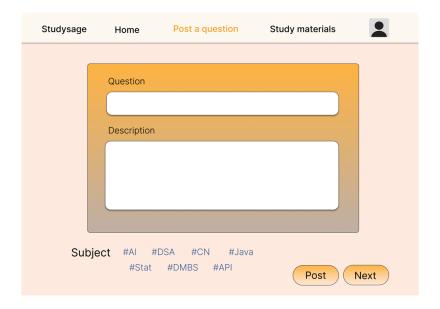


Figure 3.5: A figure of User Interface

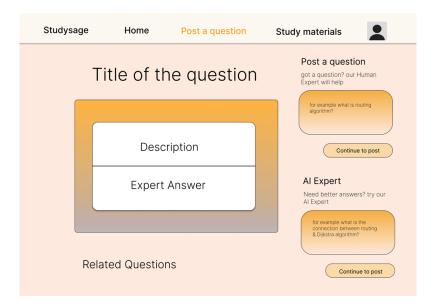


Figure 3.6: A figure of User Interface

3.2 Detailed Methodology and Design

Our targeted users are students. Our main focus is when a student posting a question they are getting accurate and reliable answer. We will keep our website simple. Instructions will be clear so that a student does not face any complications while they are browsing our website. They simply search materials and get it and they can also post questions to get their expected answers.

3.3 Task Allocation

The table below 3.1 shows the task allocation to members.

Table 3.1: Task allocation

Md. Jahangir Alam	Asif Al Zawad	Mirza Shemin	Mahmudul Hasan
Database Design	Database Design	Home Page	Dashboard
Admin Panel	Admin Panel	User Profile	User Profile
AI Expert	AI Expert	Study Guide	Search Function
Human Expert Profile	User Profile	Human Expert Profile	Study Guide
User Profile	Study Guide	Admin Panel	Contact US

3.4 Summary

Our website StudySage focuses to provide students a platform where they can search and download study materials, ask questions and receive reliable and instant answers from Human and AI expert. The system is planned to fulfill both functional and non-functional requirements to ensure authentication, user-friendly interface, security and privacy, performance, usability, reliability and compatibility. We will be focusing on simplicity and clear interface for the students. Context diagram, UI design and DFD are introduced to simplify the projects development. What features we will keep and what features we will be discard that has been discussed in Future Work. Task responsibilities divided among team members.

Implementation and Results

[Must be present in Final Report. Incomplete version might be included in FYDP-1 Report, however it is optional.]

Every chapter should start with 1-2 sentences on the outline of the chapter.

- 4.1 Environment Setup
- 4.2 Testing and Evaluation
- 4.3 Results and Discussion
- 4.4 Summary

Standards and Design Constraints

In this part we have talked about the standers and constraints that the project may have to implement to be more useful. And to upholds other party concerns.

5.1 Compliance with the Standards

There are standards to software that our software will try to uphold.

5.1.1 Software Standards

- Color Blind-Friendly UI: The software's user interface (UI) must adhere to Web Content Accessibility Guidelines (WCAG) to ensure inclusively for color-blind individuals. Color combinations should provide adequate contrast, and design elements should not solely rely on color to convey information.
- Alternative Text: All images and graphical elements should have appropriate alternative text to ensure compatibility with screen readers.

5.2 Design Constraints

In this part we have talked about some design constraints that this project should hold.

5.2.1 Economic Constraint

Subscription method: Our platform will offer subscription plans for students to access StudySage and use it. This subscription method will provide a steady flow of revenue.

5.2.2 UI Design Constraint

Responsive Design: Our question answering platform will have a steady and simple user interface which will be compatible with multiple different devices. Most of the time students uses mobile so mobile responsiveness is important as well as other devices will be

in concern.

Usability: The UI will be designed in such a way that a student can easily interact with our website. We will avoid unnecessary complications that can confuse a student.

Consistency: Our AI powered question answering website will maintain consistency. Entirely our website will have a consistent design and pattern.

Performance: When a student clicks on any button or an icon it should respond and load quickly to a student. Delaying in loading can cause annoyance and user giving up.

Error Handling: Suppose a student is trying to signing up and giving wrong email or password so the UI will provide correct error messages that can guide a student on how to correct their mistakes.

5.2.3 Ethical Constraint

To maintain the integrity of examinations and prevent academic dishonesty, Studysage our platform will implement measures that discourage its misuse during exams. These measures will be designed to uphold academic honesty while still enabling the platform's educational benefits. The following constraints can be applied:

- Academic Integrity Promotion: The platform will prioritize the promotion of academic integrity. Users should be educated on the value of independent learning, and the platform's purpose should be framed as a supportive tool for understanding and comprehension, rather than a means of cheating.
- Usage Transparency: Our platform will transparently communicate its intended use and limitations. Users, especially students, should be informed that the platform is not a replacement for studying and should not be exploited during exams or assessments.

5.3 Cost Analysis

In this section we have shown a cost analysis for 500 users.

5.3.1 Cost Distribution

- Domain & Hosting: StudySage Domain on namecheap 12\$ Yearly
- API Cost: Approximately for 500 User's API token cost daily $500 \times 0.12 = \$60$ (Daily)
- Maintenance: Monthly 50\$ for once.
- Marketing and Promotional cost: Campaign and advertisement service 150\$
- External Cost: Guest and other services.

5.3.2 Revenue

In the Figure below 5.1 we are showing how we will generate our revenue.

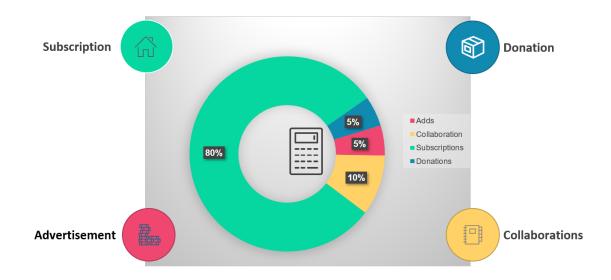


Figure 5.1: A figure of Revenue

5.4 Complex Engineering Problem

These are the complex engineering problems we might face.

5.4.1 Complex Problem Solving

The table is for Mapping with complex problem solving. (Use Table 5.2).

Table 5.1: Mapping with complex problem solving.

P1	P2	P3	P4	P5	P6	P7
Dept of	Range	Depth of	Familiarity	Extent of	Extent	Inter-
Knowl-	of Con-	Analysis	of Issues	Applicable	of Stake-	dependence
edge	flicting			Codes	holder	
	Require-				Involve-	
	ments				ment	

5.4.2 Engineering Activities

The table is for Mapping with complex engineering activities. (Use Table 5.2).

Table 5.2: Mapping with complex engineering activities.

A1	A2	A3	A4	A5			
Range of re-	Level of Interac-	Innovation	Consequences	Familiarity			
sources	tion		for society and				
			environment				
•	•	•		•			

5.5 Summary

This part has talked about the major issue the education system, the universities and the users may be concerned about. and we can over come these problems. Like method to over come Ethical Constraint, UI Design Constrain and Economic Constrain.

Conclusion

Our platform merges AI ingenuity with human expertise, ushering in a new era of academic support. With ChatGPT, students gain swift answers, while human experts offer tailored guidance. Our vision encompasses accurate solutions, personalized learning, and empowering academic preparation.

Join us on this trans formative journey towards an interactive education landscape.

6.1 Future Work

- AI-Enhanced Tutoring & Incorporate Analytics
- Integrate More Resources
- Adaptive Learning

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