

United International University



Report On

ProTutorBD

Submitted to

Dr. Suman Ahmmed
Associate Professor, CSE, UIU

Submitted by

Name	Id No.
Rayhan Al Shorif	0122410022
Iftekharul Islam	0122410013
F. M. Shefat Hossain Niloy	0122310011
Arnab Protim Mondal	0122320014

Date of Submission: 23th March, 2024

ProTutorBD

Contents

1. Introduction:	3
2. Objectives:.....	3
3. Methodologies:	3
i. Tutor Recruitment and Selection:.....	3
4. Specification Analysis:.....	5
i. Benchmark Table Analysis:.....	5
ii. Research paper study:.....	11
iii. Questionnaire for This Product:	14
iv. Survey Report or User feedback:.....	14
5. Features List (Functional & Non-Functional):.....	15
i. Functional Requirement:.....	15
ii. Non-functional Requirement:.....	15
iii. Novelty:.....	16
6. SWOT Analysis:.....	16
7. Cost Model and Cash Flow Diagrams:.....	17
8. UML Diagrams:	17
9. UI Design:	21
10. Tentative Implementation Schedule/Milestone:.....	21
11. Conclusions and Recommendations:.....	21
12. References:	21
i. Paper Based:.....	21
ii. Information Based:.....	21

1. Introduction:

Welcome to "**ProTutor.BD**", your premier destination for personalized academic support in Bangladesh! Tutoring services can be incredibly helpful for students looking to enhance their academic skills or prepare for exams. Although after searching many places for academic help in personal life we find a premium or tutor of our choice. It takes us a lot of time and we have to deal with various problems in life starting from studies. In this digital era, we have created these products to find a solution to find our favorite teacher without wasting time.

2. Objectives:

Although the main objective of this project is to facilitate the learning process of the students. We know that a tutor is a lifesaver for a child's education. "**ProTutor.BD**" suggests a connection to education and guidance. However, it implies a sense of leading or piloting through the educational journey, which aligns with the idea of guiding and supporting students. It involves helping the student understand concepts, acquire new skills, and improve their overall academic performance. Tutors often provide personalized support tailored to a student's specific needs. Tutors aim to build the student's confidence in their abilities. By providing guidance, positive reinforcement, and constructive feedback, tutors help students feel more capable and confident in their academic pursuits. For everything, we have taken the initiative so that every parent can find a good and decent teacher to educate their children through our plot form.

3. Methodologies:

Speaking of methodology, we will generally follow a few things in providing the structural framework for our product. Addressing aspects such as tutor recruitment or hire a tutor, proper training, regular supervision as well as evaluation is very necessary for this product which we are aiming for more. Here's a breakdown of key areas to consider:

i. Tutor Recruitment and Selection:

- Determine the criteria for selecting tutors, including educational background, experience, and subject expertise.
- Develop recruitment strategies to attract qualified tutors, such as advertising through educational institutions, online platforms, or professional networks.
- Conduct interviews or assessments to evaluate candidates' suitability for tutoring roles.

ii. Proper Training and Guidance:

- Provide comprehensive training to tutors on effective teaching methodologies, communication skills, and subject-specific content.
- Offer workshops or seminars to enhance tutors' understanding of pedagogical principles and learner-centered approaches.
- Provide ongoing professional development opportunities to keep tutors updated on best practices and educational trends.

iii. Monitoring and Evaluation:

- Develop performance metrics and evaluation criteria to assess tutors' effectiveness in supporting student learning.
- Implement systems for collecting feedback from students, parents, and other stakeholders to evaluate the quality of tutoring services.
- Use data-driven insights to identify areas for improvement and make informed decisions about tutor allocation and resource allocation.

iv. Recognition and Incentives:

- Recognize and reward tutors for their contributions and achievements in supporting student learning and academic success.
- Offer incentives or bonuses for tutors who demonstrate exceptional performance, such as high student satisfaction ratings or improved academic outcomes.
- Foster a positive and supportive work environment that values the efforts and dedication of tutors.

v. Continuous Improvement:

- Regularly review and refine tutor management policies, procedures, and practices to ensure alignment with organizational goals and educational standards.
- Solicit feedback from tutors, students, and other stakeholders to identify areas for improvement and implement necessary changes.
- Stay abreast of emerging trends and innovations in education to adapt and enhance tutor management methodologies accordingly.

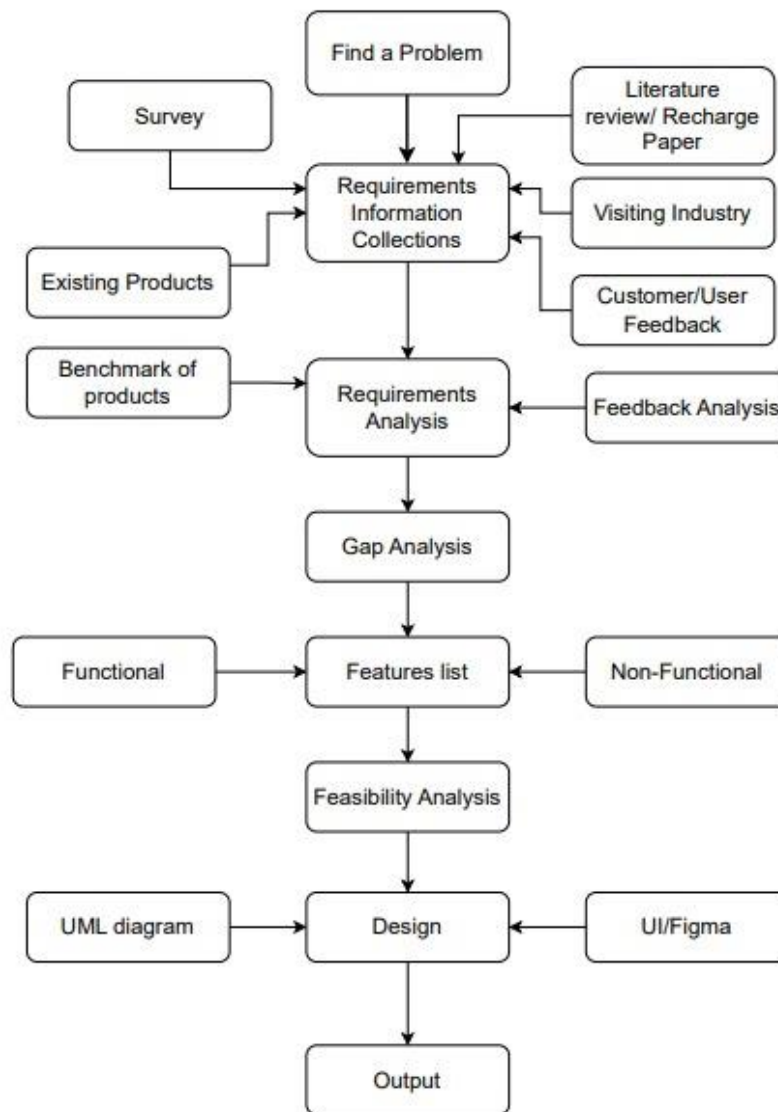


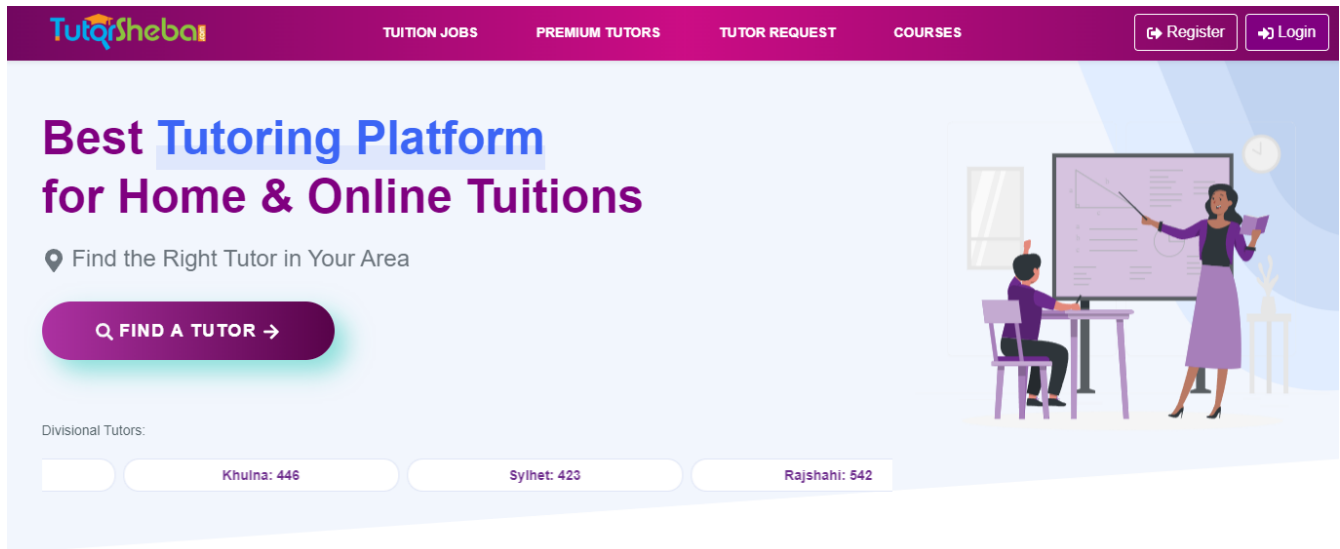
Figure 1: Methodology diagram

4. Specification Analysis:

i. Benchmark Table Analysis:

Benchmarking education-related systems like “**ProTutor.BD**” involves evaluating the functionality, features, and capabilities of educational technology in its context. We have selected some of the top-tier products on the market to benchmark our products. There are a few products currently running that we want to benchmark with and test our product's capabilities. List of selected products from the ongoing marketplace: tutorsheba.com, Bdtutors.com, caretutors.com, dhakatutors.com, deshtutor.com etc.

TutorSheba.com



SEARCH TUTORING JOBS

Find Your Tution Jobs, in your area

Figure 2:tutorsheba.com

TutorSheba.com is created for the students and teachers of Bangladesh. The key features and limitations are as following:

Key Features:

- Tutors can create account and give tuition post
- Students can create account and hire tutor from available tutors
- Students can request for tutors according to their own requirements
- one day demo session over phone is conducted before hiring a tutor

Limitations:

- Features like online tuition, review and rating, payment gateway, assignment help are unavailable

bdtutors.com

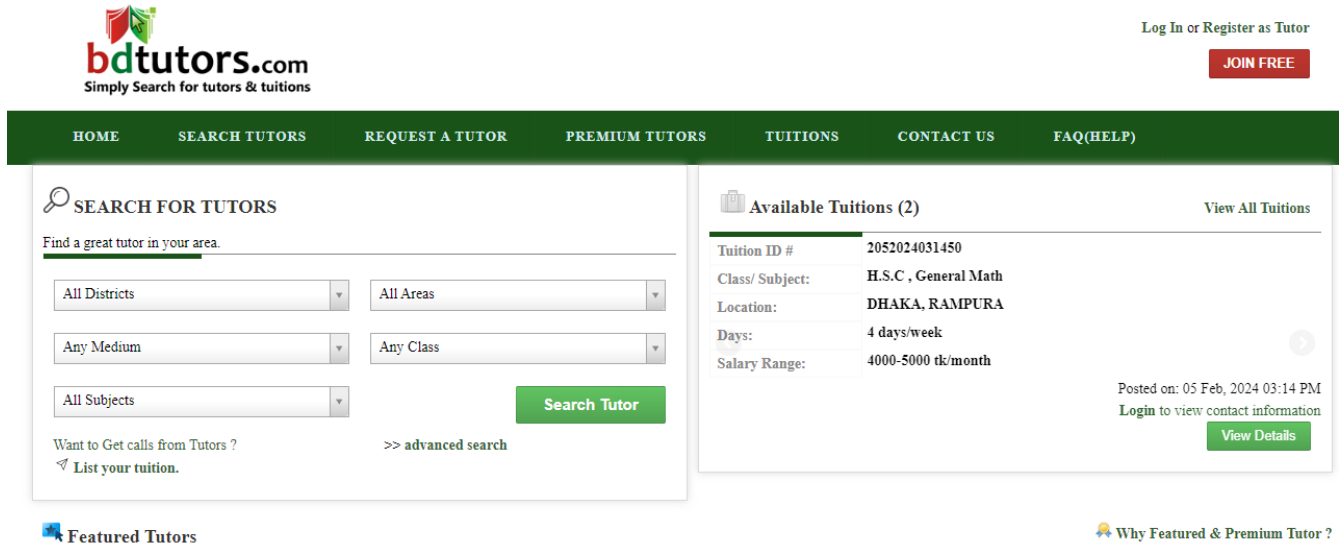


Figure 3: [bdtutors.com](https://www.bdtutors.com)

[bdtutors.com](https://www.bdtutors.com) is made for Bangladeshi students and tutors. The key features and limitations are as following:

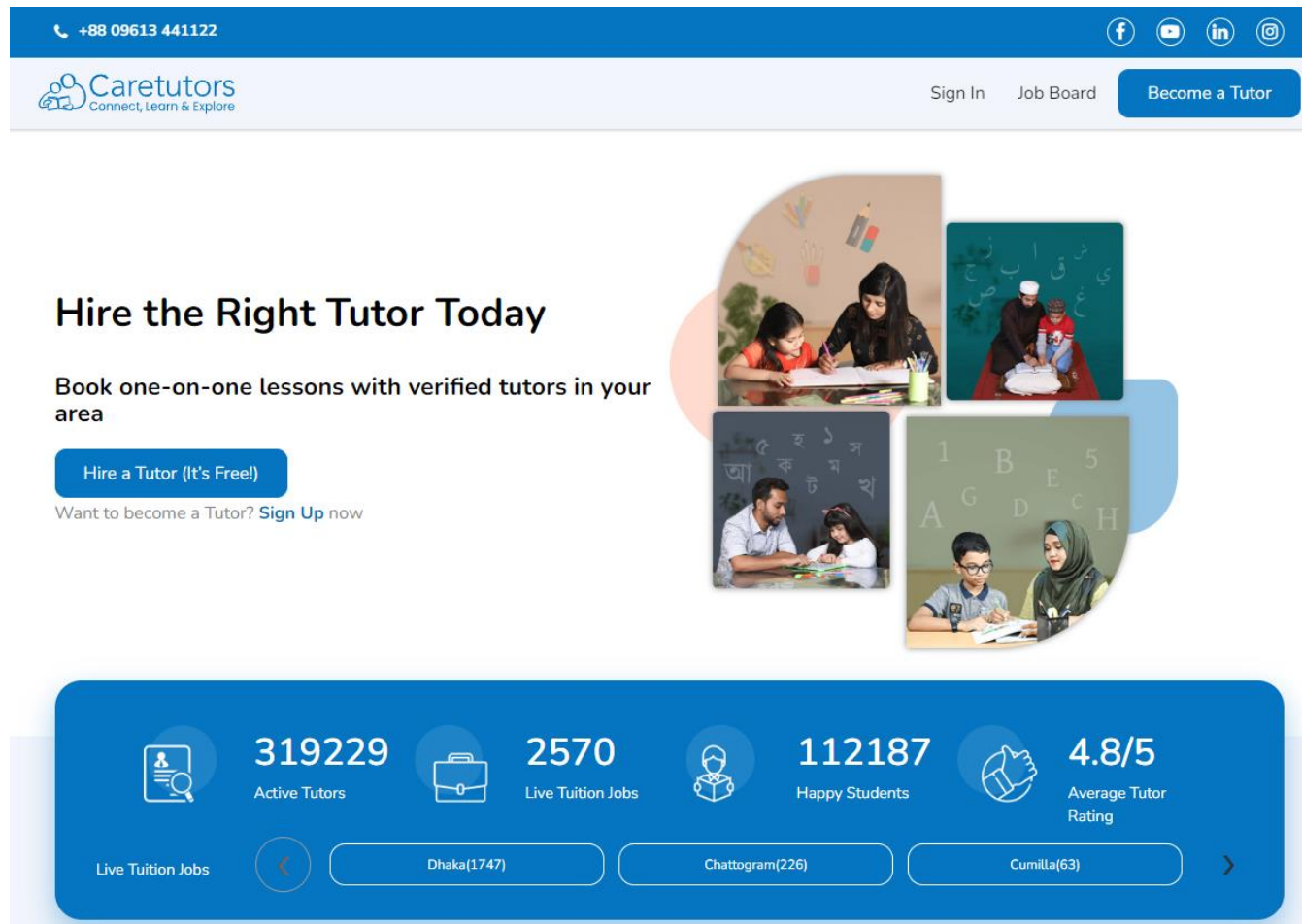
Key Features:

- Tutor can create account and give tuition post
- Student can create account, give tutor searching post based on requirements and Hire tutor from available tutors
- Student can find tutor using filter options
- Payment gateways: VISA, MasterCard, bKash, DBBL Master, IBBL iBanking, Islami Bank M CASH

Limitations:

- Online tuition is unavailable
- Students cannot find tutor using map
- Blog posting, downloading books and preview sessions are unavailable

caretutors.com



+88 09613 441122

Sign In Job Board Become a Tutor

Hire the Right Tutor Today

Book one-on-one lessons with verified tutors in your area

Hire a Tutor (It's Free!)

Want to become a Tutor? [Sign Up](#) now

319229 Active Tutors

2570 Live Tuition Jobs

112187 Happy Students

4.8/5 Average Tutor Rating

Live Tuition Jobs

Dhaka(1747) Chattogram(226) Cumilla(63)

Figure 4:caretutors.com

Caretutors.com is created for Bangladeshi students and tutors. The key features and limitations are as following:

Key Features:

- Tutors can create account and give tuition post
- Students can create account and hire tutor from available tutors' list
- Students can find tutor using filter options

Limitations:

- Online tuition is unavailable
- Payment, blog posting and downloading books options are unavailable
- Students cannot give tutor searching post based on their own requirements

dhakatutors.com

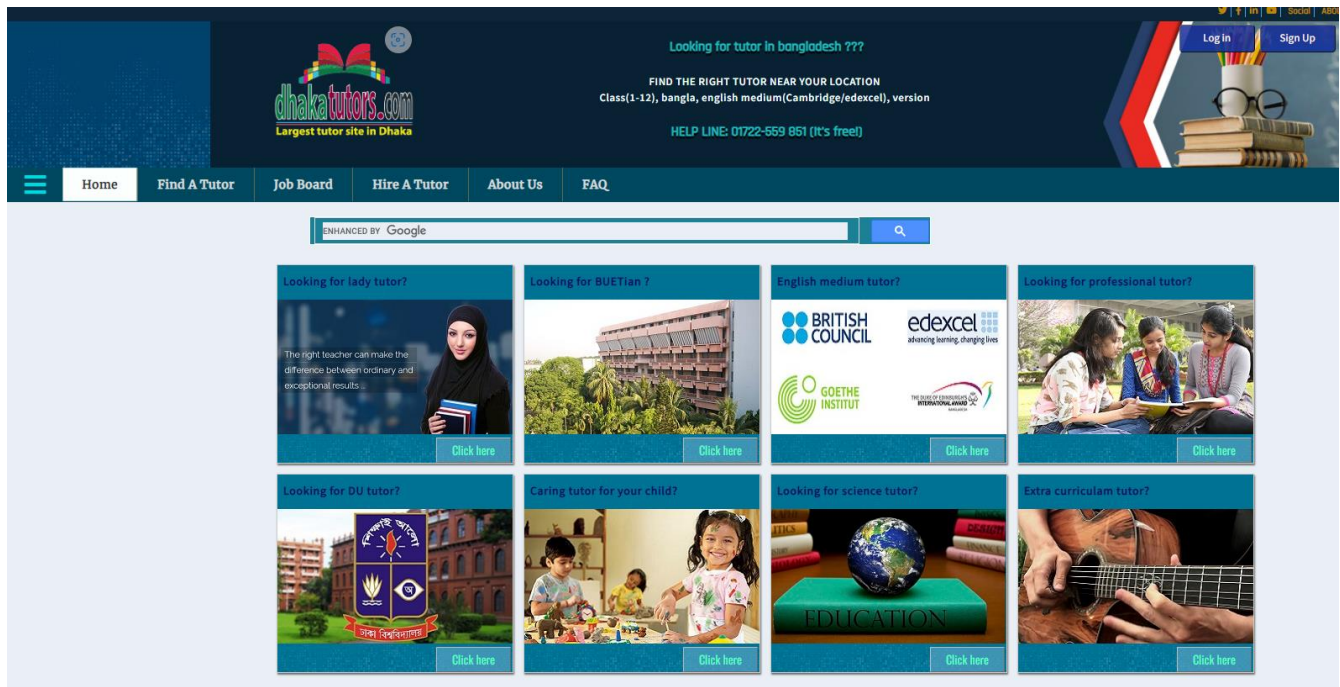


Figure 5:dhakatutors.com

dhakatutors.com is created for Bangladeshi students and tutors. The key features and limitations are as following:

Key Features:

- Tutors can create account and give tuition post
- Students can create account and hire tutor from available tutors' list
- Students can find tutor using filter options

Limitations:

- Online tuition is unavailable
- Payment, blog posting and downloading books options are unavailable
- Students cannot give tutor searching post based on their own requirements

deshtutor.com

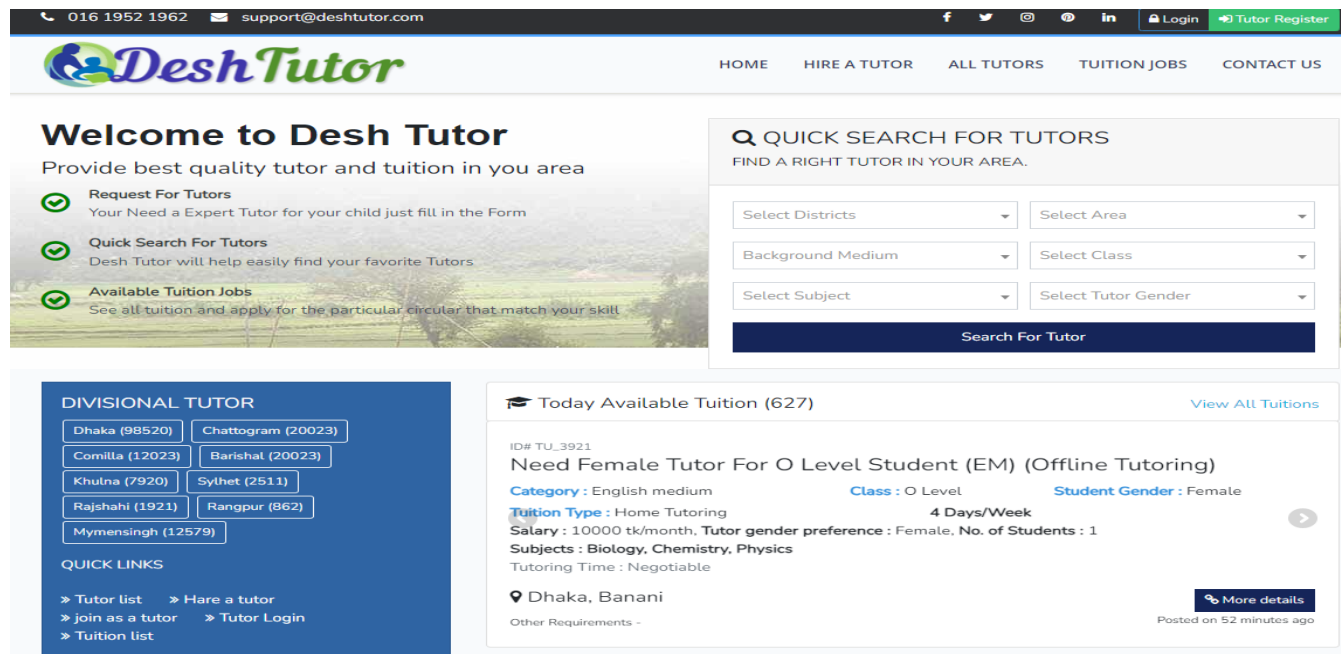


Figure 6:deshtutor.com

DeshTutor is made for the students and teachers of our country. The key features and limitations are as following:

Key Features:

- Tutors can create account and give tuition post
- Students can create account and hire tutor from available tutors
- Students can request for tutors
- Online tuition available
- Quick search for tutors
- Payment gateways: Rocket, bKash

Limitations:

- Students cannot search tutor using map
- Students cannot give tutor searching post based on their requirements

Benchmark of products:

Features		Existing Products					
		tutorsheba.com	bdtutors.com	caretutors.com	dhakatutors.com	deshtutor.com	our product
Roles	Admin	✓	✓	✓	✓	✓	✓
	Tutor	✓	✓	✓	✓	✓	✓
	Students	✓	✓	✓	✓	✓	✓

	Guardian				✓		✓
Available Tuitions	✓	✓	✓	✓	✓	✓	✓
Payment System	✓	✓	✓	✓	✓	✓	✓
Premium Tutors Search	✓	✓	✓			✓	✓
Affiliate Partner	✓	✓					✓
Notifications System	✓		✓				✓
FAQ	✓	✓	✓	✓			✓
Contact Us	✓	✓	✓	✓	✓		✓
Tutor Request	✓	✓					✓
Quick Chat	✓	✓	✓	✓	✓	✓	✓
Online tuition	✓						✓
Review & Rating	✓	✓	✓	✓	✓	✓	✓
About us	✓	✓	✓	✓	✓	✓	✓
Default auto-search							✓
Default auto-suggest							✓
Blog Post							✓
Download Books							✓
Suggested nearest tutors or students							✓
Provides suggestions							✓

ii. Research paper study:

1. Paper Name: The Demand for Shadow Education: Socioeconomic Determinants and Implications

Summary:

The authors of this paper found:

- Richer families and families where parents had more education were more likely to pay for extra tutoring.
- Kids who got extra tutoring did tend to score better in school.
- But this extra tutoring can be expensive, and it can make it harder for poorer families to keep up.
- Some kids get a big advantage because their families can afford extra help.
- This isn't fair, and it can make it harder for kids from poorer families to succeed in school.
- Maybe schools need to get better so that all kids get the help they need, without their families having to pay extra.
- If tutorial centers run alongside schools long-term, good teachers might leave schools, lowering education quality. This could make tutoring even more essential.
- More research is needed considering factors like student-teacher ratio and high-stakes test levels in various schools.

2.

Paper Name: The Expansion and Roles of Private Tutoring in India: From Supplementation to Supplantation

Summary:

This paper dives into the world of private tutoring in India, exploring how it's grown and changed over time.

Here's the findings:

- Private tutoring, also known as "shadow education", is HUGE in India. Many students get extra help outside of school from private tutors.
- It used to be seen as "supplementary," just filling in gaps from regular school. But now, it's more like "supplantation," meaning it's almost like a whole different school system happening alongside the official one.
- This shift has some big upsides and downsides. On the plus side, some say it helps students do better in exams and get into competitive colleges. But on the other side, it creates pressure, adds financial strain on families, and can widen the gap between rich and poor students.
- The authors studied tutoring in Maharashtra, India. They found that students rely heavily on tutors, especially for key subjects like math and science. Tutors often focus on exam preparation and specific strategies, rather than broader learning.
- This raises concerns about what it means for regular schooling like Is the official system good enough or are students missing out on important skills by focusing too much on tutoring.

3.

Paper Name: The impact of shadow education on student academic achievement: Why the research is inconclusive and what can be done about it

Summary:

Findings:

1. The research on the impact of shadow education on student achievement is inconclusive. Studies have shown:
 - Positive impacts on some students and contexts.
 - Also no significant difference in academic performance between students who participated in shadow education and those who didn't..
 - potentially negative consequences like increased stress and increases educational inequality.
2. Research methods face challenges in data collection and analysis, limiting the ability to isolate the true impact of shadow education.

Limitations:

- **Inconsistent definitions:** Lack of standardization regarding what constitutes "shadow education" interrupts comprehensive analysis.
- **Methodological limitations:** Challenges in data collection and study design restrict the ability to establish clear cause-and-effect relationships.
- **Individual factors:** Difficulty in accounting for individual student characteristics and motivations, as well as the quality of tutors, which can significantly impact outcomes.

4. Paper Name: The Issue of Private Tuition: An Analysis of the Practice in Mauritius and Selected South-East Asian Countries

Summary:

Findings:

- **Prevalence:** Private tuition is widespread at both primary and secondary levels across Mauritius and Southeast Asian countries.
- **Motivations:** Competitive exams, pressure for success, and perceived shortcomings in formal education drive demand.
- **Financial Burden:** Significant cost burden on families, potentially widening social inequalities.
- **Mixed Effects:** Some students benefit, others experience stress and decreased motivation.
- **Teacher Involvement:** Raises ethical concerns, potential conflicts of interest, and exploitation of students.
- **Ineffective teaching-learning processes , Insufficient Regular Class Instruction,**
- Students seek private tuition **for better understanding and individual attention.**
- Teachers, often demotivated in regular classes, become **more engaged in tuition** as they work for themselves.
- **Class Size Challenges:** Large class sizes, Financial constraints, inadequate infrastructure, and a shortage of qualified teachers
- Students opt for private tuition due to **peer pressure and competition**

Limitations:

- Limited data availability on specific impacts and student outcomes.
- Difficulty isolating true effects of private tuition from other factors.
- Generalization of findings across diverse countries and contexts.

5. Paper Name: The more, the better? Intensity of involvement in private tuition and examination performance

Summary:

Findings:

- There is no significant advantage to taking private tuition, even for students who took a lot of it.

- This suggests that other factors, such as a student's natural ability and attitude towards learning, may be more important for exam success than private tuition.

Limitations:

- The study was conducted in Ireland, so the results may not be generalizable to other countries.
- The study relied on self-reported data, which can be subject to bias.
- The study did not control for all possible factors that could affect exam performance

6. Paper Name: The Shadow Education System in Bangladesh: A Blessing or a Curse?

Summary:

Findings:

- **Prevalence:** This system is widespread, especially in urban areas, with many students relying on it to succeed in exams.
- **Determinants:** Low teacher salaries, parental aspirations for children's academic success, and perceived inadequacies of formal education are driving factors.
- **Impact:** Can improve academic performance, boost confidence, and offer personalized attention.
- **Open question:** Whether the shadow system is ultimately a blessing or a curse remains debatable.
- **Economic Implications:** Private tutoring can contribute to economic development, but mainly benefits wealthier individuals, further widening the economic gap.
- **Prohibition:** Banning private tutoring entirely, as attempted in some countries, is difficult to enforce and may limit educational opportunities.

iii. Questionnaire for This Product:

- i. Why do you want to build this product?
- ii. How much logic is there in this approach to learning system development?
- iii. By adapting to modern technology, how much education will be able to progress through it?
- iv. In rural areas, is this system even possible to reach?
- v. What steps can be taken to cover the rural area in the future?

iv. Survey Report or User feedback:

- ✓ Teachers Satisfaction 75%.
- ✓ User Friendly UI 80%
- ✓ Responsive Design for overall device 90%
- ✓ Auto Searching system is 98% satisfaction
- ✓ Payment satisfaction is overall nice.

5. Features List (Functional & Non-Functional):

- i. **Functional Requirement:** A Functional Requirement (FR) describes the features that a system must offer. A function is the description of the combinations of the inputs to the systems or its components, its behavior and the outputs. Functional requirements such as data manipulation, business process, calculations, technical details and other specific functionality define what a software system supposed to achieve. The functional requirements of this tuition management system are listing below:
 - Users (teacher and student) can register, log-in to the system and update their profile
 - Teacher can create post by filling up the post related information and giving a certain amount for creating a post (if he/she has no free posts. After creating their profile tutor will get 3/n-numbers of free posts.)
 - Tutor can search for tuition and send request to a corresponding tutor searching post(posted by any student)
 - Student can create post for free
 - Student can search for tutor and send request to a corresponding tuition searching post(posted by any tutor)
 - Tutor and student both can give ratings and reviews to each other's
 - Tutor and student both will be able to download books
 - Tutor and student both will be able to create, read, edit, delete blogs
 - Admin can delete/block any user (student and Teacher) if the admin gets multiple complaints against the user
 - Admin will be able to upload, download and delete books
 - A searching mechanism will be provided by the system to get the post
 - The system will be accessible to online users
- ii. **Non-functional Requirement:** Non-functional Requirements can be defined as a requirement that describes not what software will do, but how the software will do. Usually they are evaluated subjectively as they are difficult to test. Some of the non-functional requirements of our proposed system are listing below:
 - Users' privacy should be protected
 - The system should have high availability
 - The system should be workable on different cross-platform web browsers like (e.g. Chrome, Safari, Mozilla, Opera, Edge)
 - The system should be easy to learn by both sophisticated and novice users
 - The system should be user friendly so that both sophisticated and inexperienced users can learn to use it at ease
 - The system should have a maximum of 3 clicks to reach any content
 - The system should have a single login to access all content
 - The system should have a consistent user interface(UI)
 - The system should have a UI which is intuitive (the behaviour of the system is according to the intuition of a standard end user)

- The system should have a standard graphical user interface that allows for the on-line data entry, editing, and deleting of data with much ease
- iii. **Novelty:** The main innovation of our product is, when a student or teacher logs into our domain, it will automatically track their location and show profiles of teachers or students in that area based on that location. The product will track the teacher's location if he/she logs in and show the teacher, student profile based on the subject under which the student is searching for the teacher. On the other hand, if a student logs in, it will track his/her location and continue to show profiles of required teachers in that area based on that student's or parent's profile.

6. SWOT Analysis:

SWOT analysis is a strategic planning tool used to evaluate the strengths, weaknesses, opportunities, and threats involved in a project or business venture. Here's a breakdown of each component:

- **Strengths:**
 - Accessibility: Students can access educational content from anywhere, at any time.
 - Customization: Allows for personalized learning experiences tailored to individual student needs.
 - Scalability: Can easily accommodate a growing number of students and courses.
 - Tech-Savvy: Appeals to middle school students who are generally comfortable with technology.
- **Weaknesses:**
 - Technology Dependence: Requires reliable internet access and devices, which may not be available to all students.
 - Limited Social Interaction: Reduced face-to-face engagement with teachers and peers.
 - Self-Discipline: Students need a high level of self-motivation to succeed.
 - Adaptation Curve: Tutors and students may require time to adapt to the new mode of learning.
- **Opportunities:**
 - Market Growth: The e-learning market is expanding, with more parents and institutions recognizing its benefits.
 - Innovation: New technologies like VR and AR can enhance the learning experience.
 - Partnerships: Potential to collaborate with educational content creators and tech companies.
 - Global Reach: Opportunity to attract students from different geographical locations.
- **Threats:**
 - Competition: A rapidly growing market means more competitors entering the space.
 - Cybersecurity: Increased risk of data breaches and privacy concerns.
 - Regulatory Changes: Potential changes in educational policies and regulations affecting online learning.
 - Technical Issues: Platform downtime or technical glitches can disrupt the learning process.

7. Cost Model and Cash Flow Diagrams:

8. UML Diagrams:

UML stands for Unified Modeling Language. It's a rich language to model software solutions, application structures, system behavior, and business processes. It is a standard modeling language, not a software development process. It guides as to the order of a team's activities specifies what artifacts should be developed, directs the tasks of individual developers and the team as a whole, and offers criteria for monitoring and measuring a project's products and activities. UML is intentionally process-independent and could be applied in the context of different processes. Still, it is most suitable for use case-driven, iterative, and incremental development processes. An example of such a process is the Rational Unified Process (RUP). UML is not complete and it is not completely visual. Given some UML diagram, we can't be sure to understand the depicted part or behavior of the system from the diagram alone. Some information could be intentionally omitted from the diagram, some information represented on the diagram could have different interpretations, and some concepts of UML have no graphical notation at all, so there is no way to depict those on diagrams.

- **Use Case Diagram:**

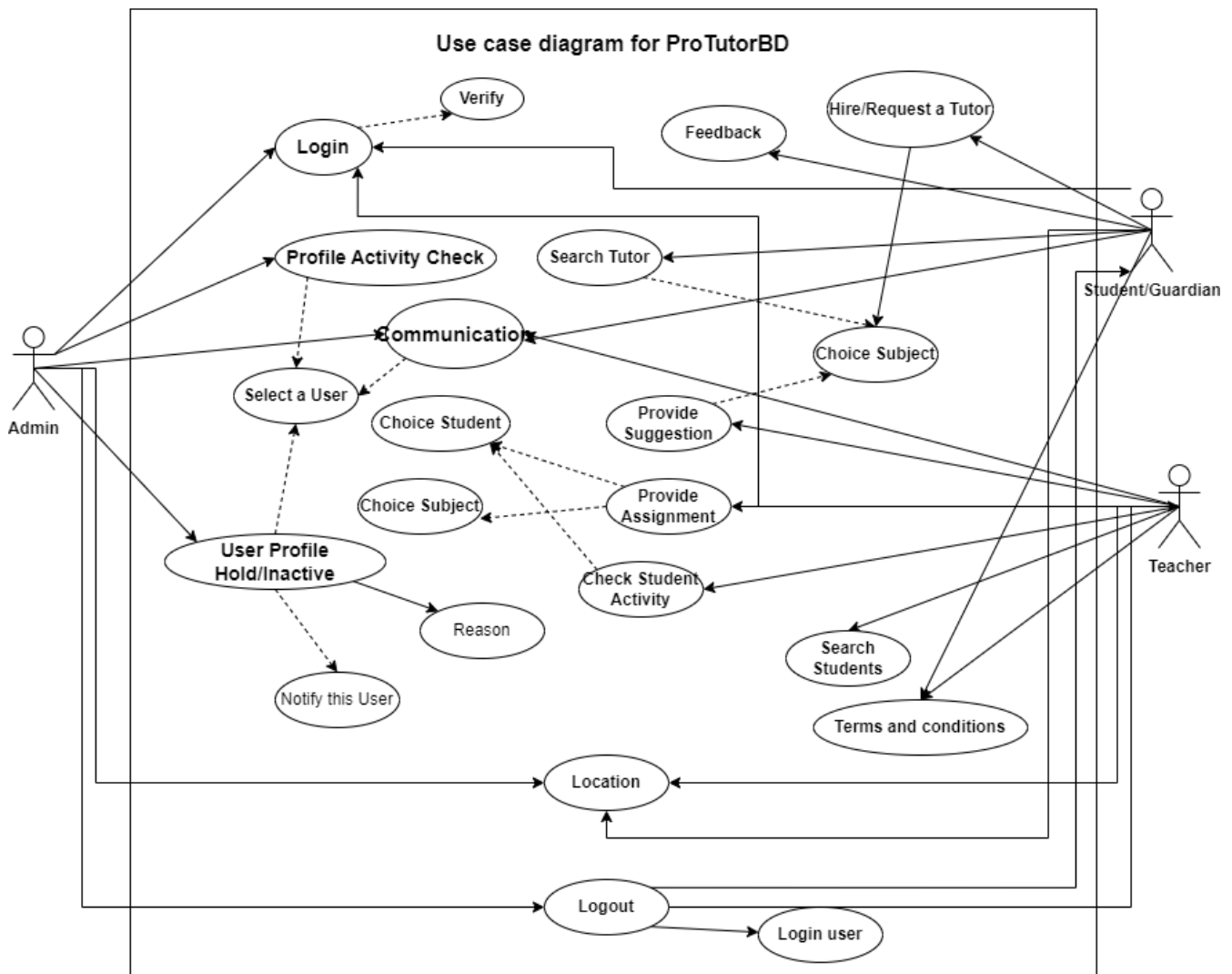


Fig 8.1: Use case Diagram

- ✓ **Use Case Descriptions:**

Search Tutor:

Use Case Number and Name:	UC001 – Search Tutor
Primary Actor:	Students or Guardians
Interests & Stakeholders:	Students and guardians are browsing and searching for tutors from our platform.

Prerequisites:	The student or guardian is must be logged in.
Success Scenario:	<ol style="list-style-type: none"> 1. Student or guardian search tutor by typing in search box. 2. Auto suggested tutor list in dropdown. 3. Click on tutor name and search him/her.
Alternative Scenario:	<ol style="list-style-type: none"> 1. In step 1 after typing something then it will not match from our database and show “no records” 2. In step 2 type something and click on it. If this tutor are not available for this course then show “Tutor is not available right now”
Post condition:	After typing the tutor name for searching then it will go to backend and search this tutor from our database. Then it will redirect new page with this tutor related information and show it.

Provide Suggestions:

Use Case Number and Name:	UC002 – Suggestion Provide
Primary Actor:	Teacher
Interests & Stakeholders:	A Teacher are browsing and sharing subject related suggestion for his/her student from our platform.
Prerequisites:	The teacher is must be logged in and selected subject.
Success Scenario:	<ol style="list-style-type: none"> 1. Teacher choice the subject 2. Uploaded pdf as suggestion
Alternative Scenario:	<ol style="list-style-type: none"> 1. In step 1 after choice this subject, if this subject has not enroll of any student then it will show “No enrolled student” 2. In step 2 when upload a pdf , if the pdf size is larger then 10mb it will show “Large File Uploaded”
Post condition:	After successfully uploaded file it will show suggest list.

- **Activity Diagram:**

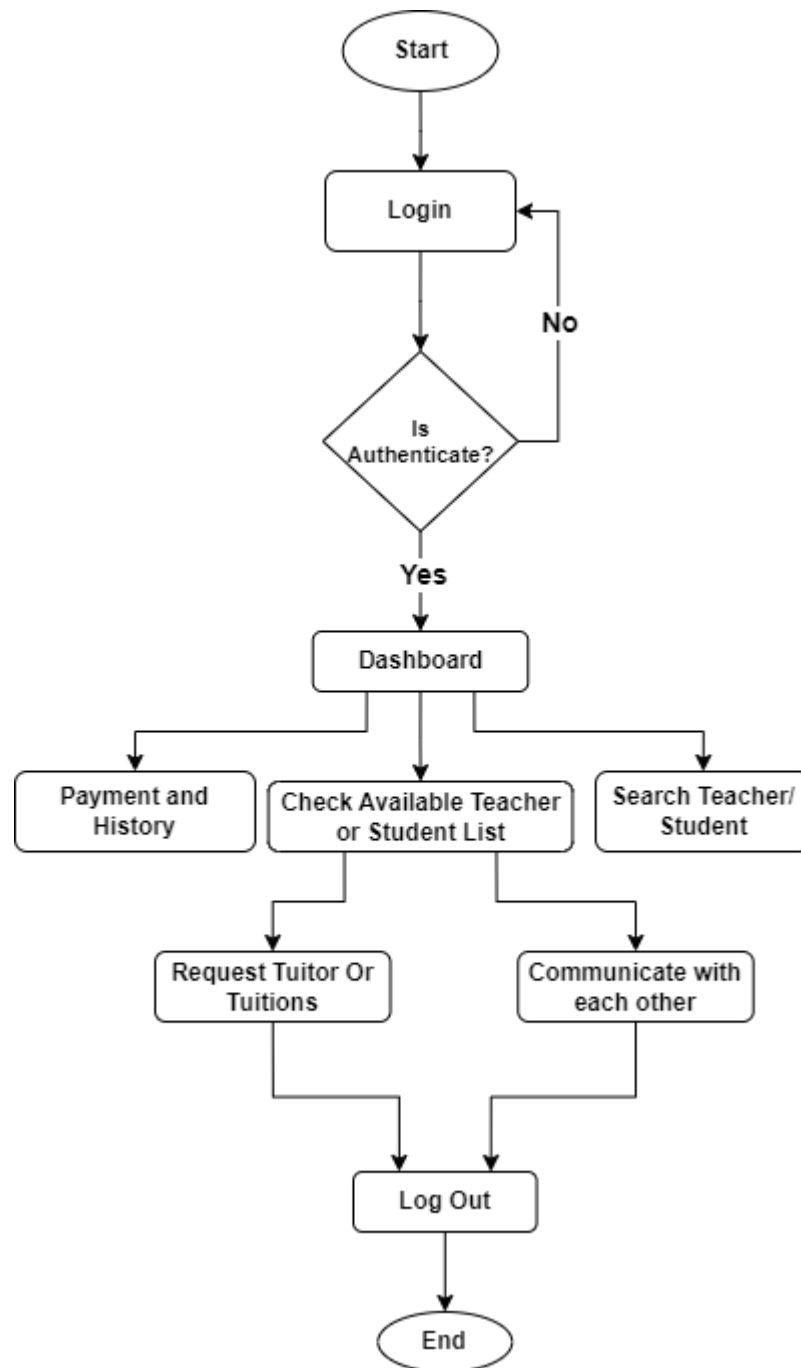


Fig 8.2: Activity Diagram

9. UI Design:

10. Tentative Implementation Schedule/Milestone:

11. Conclusions and Recommendations:

12. References:

i. Paper Based:

- [1] G. Mustafa, A. Ishaque, A. Iqbal, N. Ahmad, S. Malik, and A. Anwar, "The Demand for Shadow Education: Socioeconomic Determinants and Implications," *International Journal of Innovation, Creativity and Change*, vol. 15, no. 2, pp. 492, 2021.
- [2] S. Bhorkar and M. Bray, "The Expansion and Roles of Private Tutoring in India: From Supplementation to Supplantation," *UCL Institute of Education, London, United Kingdom and Comparative Education Research Centre, The University of Hong Kong, Pokfulam, Hong Kong*
- [3] M. Bray, "The impact of shadow education on student academic achievement: Why the research is inconclusive and what can be done about it," *Asia Pacific Education Review*, vol. 15, pp. 381–389, 2014. DOI: 10.1007/s12564-014-9326-9
- [4] A. Raffick Foondun, "The issue of private tuition: An analysis of the practice in Mauritius and selected South-East Asian countries."
- [5] E. Smyth, "The more, the better? Intensity of involvement in private tuition and examination performance," *Educational Research and Evaluation: An International Journal on Theory and Practice*, Economic and Social Research Institute, Dublin, Ireland, Published online: 02 Oct 2008.
- [6] M. Mustary, "The Shadow Education System in Bangladesh: A Blessing or a Curse?", *Glocal Education in Practice: Teaching, Researching, and Citizenship*, BCES Conference Books, vol. 17, Sofia: Bulgarian Comparative Education Society, 2019, pp. 64, ISSN 1314-4693 (print), ISSN 2534-8426 (online), ISBN 978-619-7326-07-9 (print), ISBN 978-619-7326-08-6 (online), © 2019 BCES.

ii. Information Based:

- Benchmarking learning and teaching: Developing a method ([Link](#)).
- Tutorsheba.com (Google search engine) ([Link](#)).
- Bdtutors.com (Google search engine) ([Link](#)).
- Caretutors.com (Google search engine) ([Link](#)).
- Dhakatutors.com (Google search engine) ([Link](#)).
- Deshtutor.com (Google search engine) ([Link](#)).