ProTutorBD



Course Teacher:

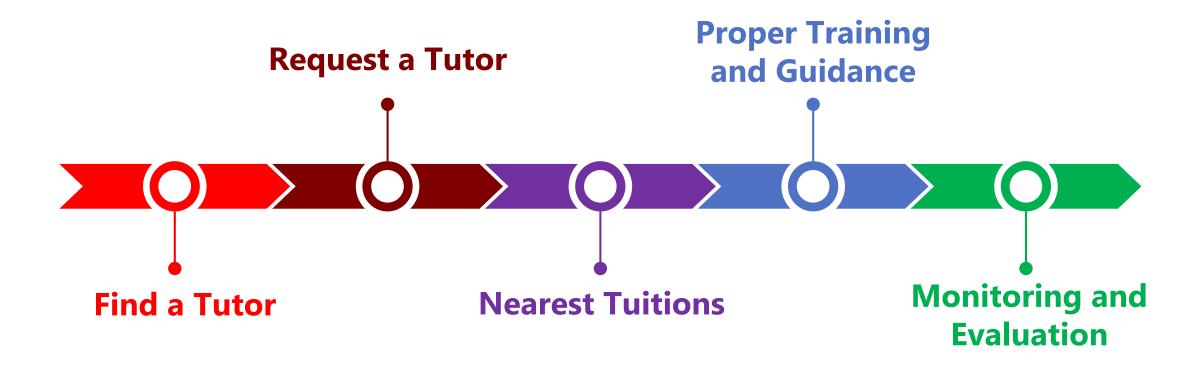
Dr. Suman Ahmmed Associate Professor, CSE Director, Center for Development of IT Professionals (CDIP)

Presented By:

Rayhan Al Shorif – 0122410022 Iftekharul Islam - 0122410013 F. M. Shefat Hossain Niloy-0122310011 Arnab Protim Mondal-0122320014

Introduction

> Platform to find out reliable study assistant





Motivation

- Always existing demand for experienced tutor
- Parents and students are worried about fraud and sources to find to tutor
- > Increasing internet accessibility and available online tools
- > Students and many varsity graduates are in quest of tuition
- Comfortable and convenient for all

Existing Products

We have selected some of the top-tier products on the market to benchmark our products.











Features of Existing Products

Tutorshebas

- > Tutor Request
- > Payment System
- Quick Chat
- Online tuition
- > Available Tuitions



- > Hire tutor
- Request a tutor(specific requirements)
- Become tutor
- > Premium tutor
- > Tuition Post
- Payment

Features of Existing Products



- > Hire tutor
- Become tutor
- Tuition Post / Job board



- > Available Tuitions
- Quick Chat
- > Review & Rating



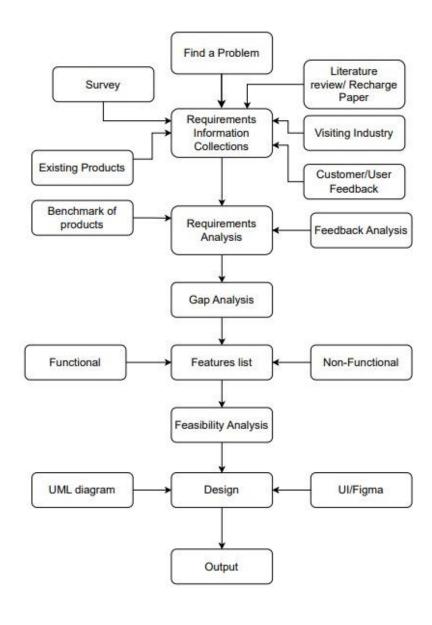
- > Hire tutor
- > Become tutor
- > Tutor List
- > Today Available Tuition
- > Request for tutors
- Payment

Benchmark Products

	Features	tutorsheba.com	bdtutors.com	caretutors.com	dhakatutors.com	deshtutor.com	Our Product
	Admin	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	✓	$\overline{\mathbf{V}}$	$\overline{\checkmark}$
les	Tutor	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	✓	$\overline{\mathbf{V}}$	✓
Roles	Students	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$
	Guardian				$\overline{\mathbf{V}}$		$\overline{\mathbf{V}}$
Available Tuitions		$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	lacksquare	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$
	Payment System	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	✓	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$
	Premium Tutors Search	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$		$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$
	Affiliate Partner	$\overline{\mathbf{V}}$	☑				$\overline{\mathbf{V}}$
	Notifications System	lacksquare		$\overline{\mathbf{V}}$			✓
	FAQ	\square	\square	$\overline{\mathbf{V}}$			lacksquare
Contact Us		\square	☑	☑	✓	$\overline{\mathbf{V}}$	lacksquare
Tutor Request		$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$				$\overline{\mathbf{V}}$
	Quick Chat	lacksquare	lacksquare	$\overline{\mathbf{V}}$	\square	$\overline{\mathbf{V}}$	lacksquare
	Online tuition	$\overline{\mathbf{V}}$					lacktriangledown
	Review & Rating	lacktriangledown	\square	$\overline{\mathbf{V}}$	\square	$\overline{\mathbf{V}}$	☑
	About us	$\overline{\mathbf{V}}$	\square	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	☑
Def	ault auto search & suggest tutor		\square	lacktriangle	\square	$\overline{\mathbf{V}}$	\square
	Blog Post						\square
	Download Books						\square
Suggested nearest tutors or students							\square
	Provides suggestions						☑



Methodology



Features List (Functional & Non-Functional)

Functional Requirements:

- 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)
- Tutor and student both can give ratings and reviews to each others
- 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

Features List (Functional & Non-Functional)

Non - Functional Requirements:

- Users' privacy should be protected
- The system should be workable on different cross-platform web browsers like (e.g. Chrome, Safari, Mozilla, Opera, Edge)
- The system should have high availability
- 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 behavior of the system is according to the intuition of a standard end
- > 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

The issue of private tuition: an analysis of the practice in mauritius and selected south-east asian countries

What they Found:

- > 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**

Other findings:

- 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.



The more, the better? Intensity of involvement in private tuition and examination performance

What they Found:

- > 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

The Demand for Shadow Education: Socioeconomic Determinants and Implications

What they Found:

- > Kids who got extra tutoring did tend to score better in school.
- > 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.
- > If tutorial centers run alongside schools long-term, good teachers might leave schools, lowering education quality. This could make tutoring even more essential.
- > Maybe schools need to get better so that all kids get the help they need, without their families having to pay extra.

Limitations:

More research is needed considering factors like student-teacher ratio and high-stakes test levels in various schools.

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

What they Found:

- > 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.

Limitations:

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..

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

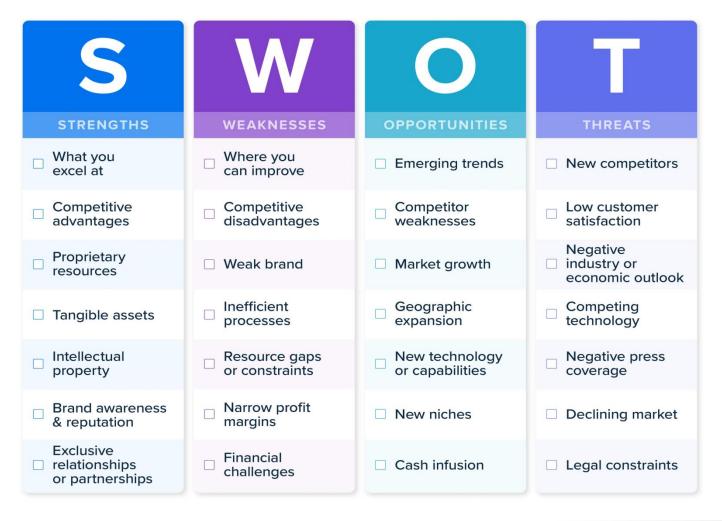
What they Found:

- > 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

Limitations:

- > Research methods face challenges in data collection and analysis, limiting the ability to isolate the true impact of shadow education.
- > Difficulty in accounting for individual student characteristics and motivations, as well as the quality of tutors, which can significantly impact outcomes.

Feasibility Analysis



Cost Model and Cost Flow Diagram

Quarterly cash flow statement Cash flow from Operating Activities Revenue	-	2	3	4	1	2	3	4	1	2	3	4
	-								. 1	2	3	4
	-											
Revenue	-											
Revenue	-											
		-	-	-	4,285,350	8,570,700	12,856,050	17,141,400	21,426,750	25,712,100	29,997,450	34,282,800
Operating Expenses	8,042,265	8,250,685	10,326,940	8,815,009	8,993,288	9,312,562	9,638,017	9,969,828	10,308,177	10,653,254	11,005,252	11,364,370
Salaries and Benefits	4,537,500	4,650,938	4,767,211	4,886,391	5,008,551	5,133,765	5,262,109	5,393,662	5,528,503	5,666,716	5,808,384	5,953,593
Salaries & Wages												
Bonuses												
Health Insurance												
Lunch & Snacks												
Transport												
Entertainment												
Hardware Lease Cost	870,500	892,263	914,569	937,433	960,869	984,891	1,009,513	1,034,751	1,060,620	1,087,135	1,114,314	1,142,171
Computers												
Smartboards												
Cameras												
Microphones												
Lighting Equipment												
Furnitures												
Rent	1.050.000	1.076.250	1.103.156	1.130.735	1.159.004	1,187,979	1.217.678	1.248.120	1.279.323	1.311.306	1.344.089	1.377.691
Utilities	255,000	267,750	281,138	295,194	309,954	325,452	341,724	358,811	376,751	395,589		436,137
	255,000	267,750	201,130	295,194	309,934	323,432	541,724	338,811	3/0,/31	393,389	415,368	430,137
Electricity Internet												
Water												
Gas												
Hosting and Software	250,000	256,250	1,875,000	187,500	192,188	196,992	201,917	206,965	212,139	217,443	222,879	228,451
Hosting												
Software Licenses and Subscription												
Repairs and Maintenance	382,965	392,890	491,759	419,762	428,252	443,455	458,953	474,754	490,866	507,298	524,060	541,160
Marketing and advertising expenses	-	-	-	2,142,675	1,714,140	2,571,210	3,428,280	4,285,350	5,142,420	5,999,490	6,856,560	7,713,630
Taxes and Licenses	-	-	-	-	1,714,140	3,428,280	5,142,420	6,856,560	8,570,700	10,284,840	11,998,980	13,713,120
Unexpected Costs	696,300	714,345	894,107	957,993	934,471	1,040,029	1,146,122	1,252,766	1,359,976	1,467,768	1,576,159	1,685,167
Net Income	(8,042,265)	(8,250,685)	(10,326,940)	(8,815,009)	(4,707,938)	(741,862)	3,218,033	7,171,572	11,118,573	15,058,846	18,992,198	22,918,430

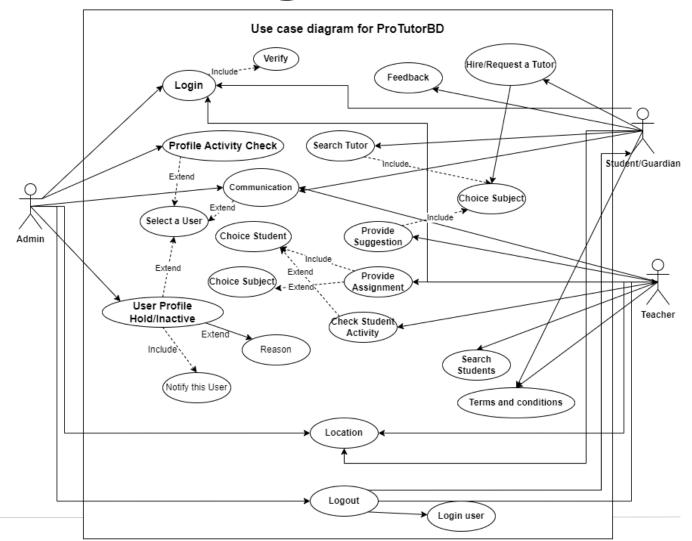


Novelty

ProTutorBD's primary innovation is that it helps us find automated location-based tutors with streamlined, learning, seamlessly combining modern technology with human expertise to create a rich learning experience tailored to each student's needs.

UML Design

> Use case diagram.



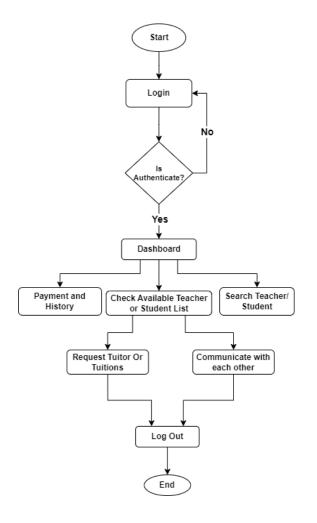
Search Tutor:

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:	 Student or guardian search tutor by typing in search box. Auto suggested tutor list in dropdown. Click on tutor name and search him/her. 			
Alternative Scenario:	 In step 1 after typing something then it will not match from our database and show "no records" 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:

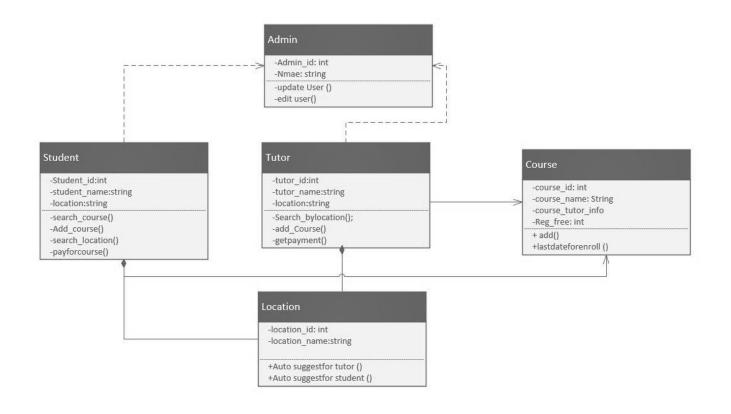
Use Case Number and Name:	UC002 – Suggestion Provide				
Primary Actor:	Teacher				
Interests & Stakeholders:	A Teacher are browsing and sharing subject related suggestion for his/her student from our platform.				
Prerequisites:	The teacher is must be logged in and selected subject.				
Success Scenario:	 Teacher choice the subject Uploaded pdf as suggestion 				
Alternative Scenario:	 In step 1 after choice this subject, if this subject has not enroll of any student then it will show "No enrolled student" 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:

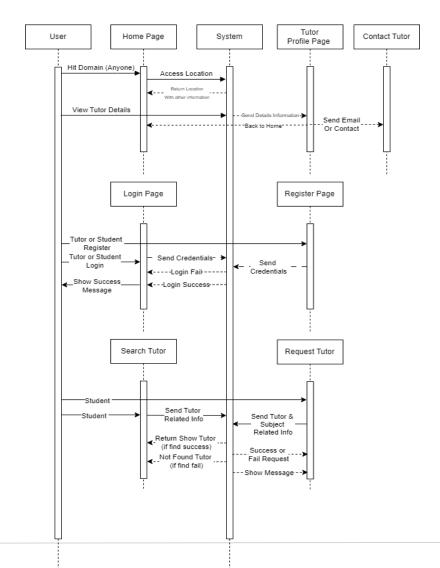




State diagram:



Sequence Diagram:



Class Name

```
public function Admin{
    updateuser();
    verifyUser()
public function Student{
    searchTutor();
    payCourse()
public function Tutor{
    search_Tuiton();
    chatWithStudent()
```

```
public function Course{
    registerCourse();
    courseFee()
public function Student {
    registerCourse();
    payFee();
         searchLocation();
Public function Location (){
    suggestTutor();
     access();
```



Fig: Home Page



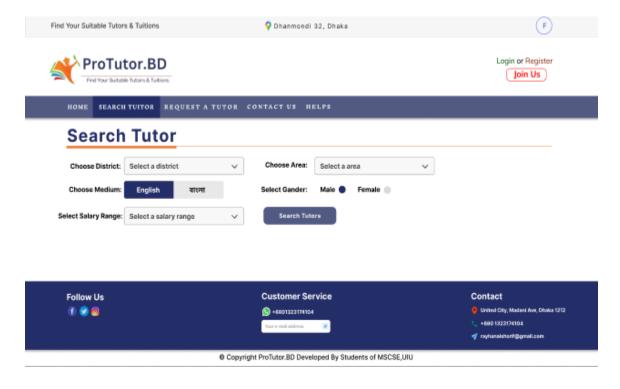


Fig: Search Tutor

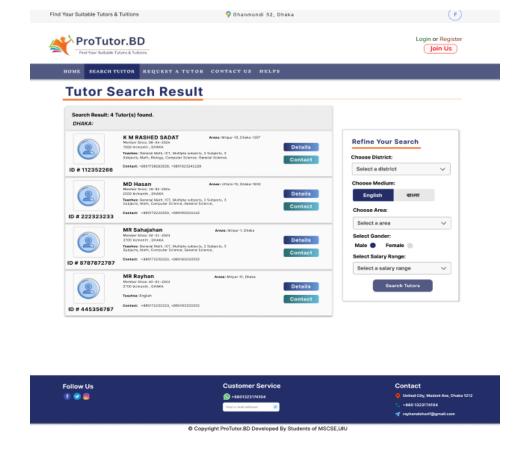


Fig: Search Tutor Result

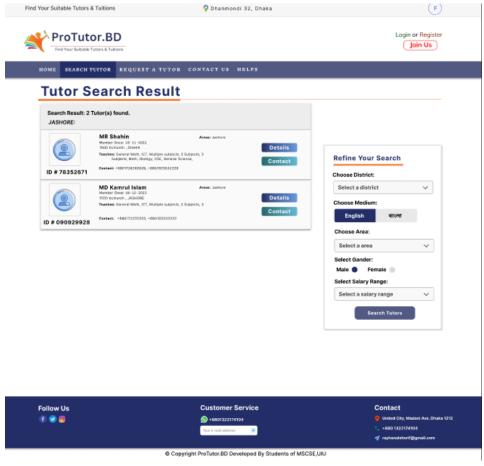


Fig: Search Tutor Result_1





Fig: Tutor Profile

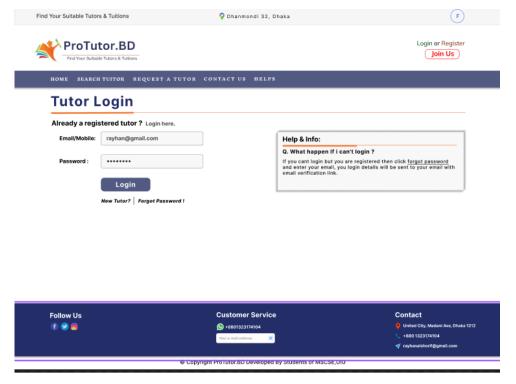


Fig: Tutor Login

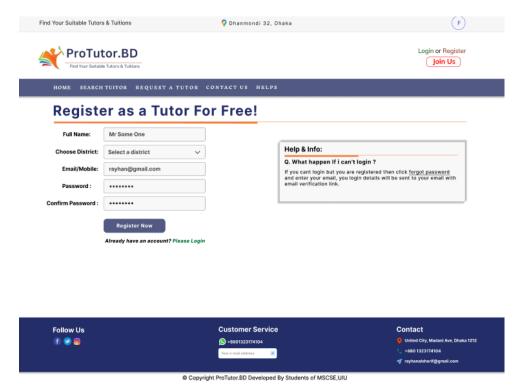


Fig: Tutor Register

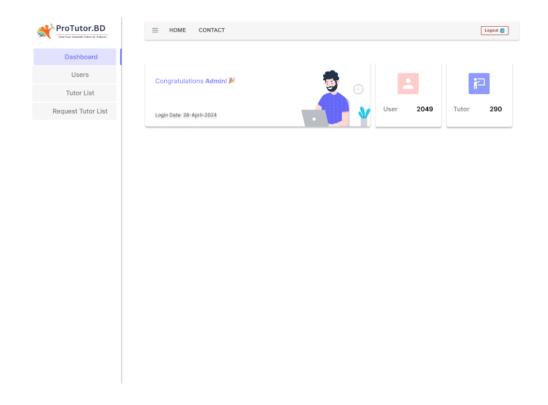


Fig: Admin Dashboard

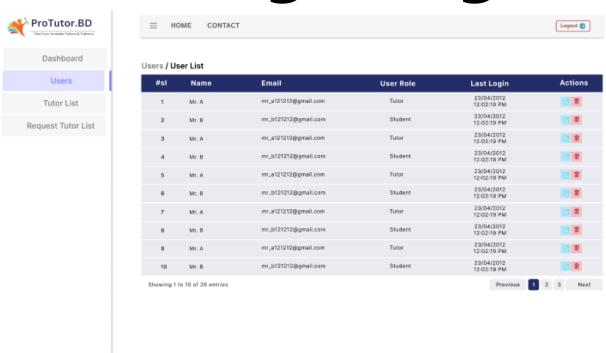


Fig: User list

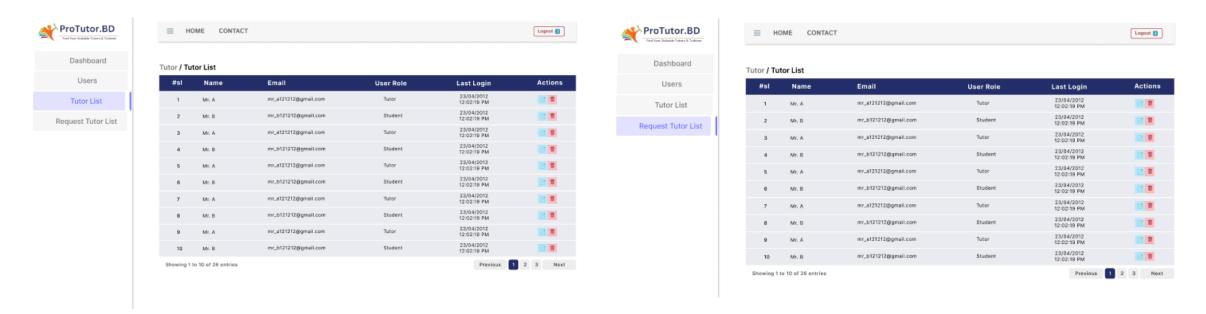


Fig: Tutor list

Fig: Request Tutor list

Fig Link: https://www.figma.com/proto/8ygJCRXqf5qbWQzErEUyil/ProTutor.BD?type=design &node-id=295-561&t=Ay6sOf14krKCsJwK-0&scaling=min-zoom&page-id=0%3A1



References

- [1] https://www.tandfonline.com/doi/full/10.1080/13803610802246395
- [2] https://www.researchgate.net/publication/349213058_The_Demand_for_Shadow_Education_Socioeco nomic_Determinants_and_Implications





THANK YOU

Thanks for your valuable time.