

CASE STUDY

How a website transformed learning to online virtual classrooms

<http://www.tutapoint.com/>

Background:

'Tutapoint' is a virtual classroom online tutoring website which primarily aims to develop the concepts and understanding of various academic courses provided on the site to the fellow students who seek a proper rostrum for excellence in their respective areas of interest. It's a paradise of knowledge for those who have zeal to learn and are looking forward to fully exploit the technological aspects to accomplish their academic tasks and commitments.

The screenshot shows the Tutapoint.com website interface. At the top is a dark navigation bar with white text links: Pricing, Create Account, Subjects, SAT Prep, Summer Math, Search Tutors, Math Resources, Science Resources, FAQs, and About Us. Below the navigation bar is a large hero section. On the left, a woman with brown hair, wearing a green shirt, is smiling and leaning on a stack of books. To her right, a white box titled 'Pricing Plans to Meet Your Specific Needs' contains two pricing options: '\$29 PER HOUR' and '\$74 PER MONTH' (with '4 HOURS OF TUTORING' and 'SEE ALL PLANS' next to it). A blue 'GET STARTED' button is positioned below the pricing options. Below the hero section are two columns of text. The left column is titled 'Expert Online Tutoring' and describes the fast, reliable access to online tutors and educational resources. The right column is titled 'Why Chose Tutapoint Online Tutoring?' and highlights that each tutor is based in the United States and has years of experience. At the bottom of the page is a blue banner with a white 'T' logo, the text 'Online SAT Classes Forming Now Register Today', and a 'Close' button in the top right corner.

Objective:

The main focus is on creating such a forum and community for the students, so as to impart knowledge on the manifold subject wise courses and programs focused on academics which could be easily subscribed by the users. The stress is laid on providing the users, tutor at affordable cost any time and any place. Appointing and assigning of the tutors to the students would be based totally on the choice of students. The development is primarily accustomed to save tutoring sessions and deliver out-standing video lessons and classes.

The cultivated application provides a way to assist pupil to excel in their academics. This is achieved by emphasizing on the methodologies which develop and strengthen the basic communication between the tutor and student. Such a method of imparting knowledge which enables the users to understand and apprehend the topics with more ease is worth all the time and money.

The Campaign:

Tutapoint nourishes the fundamental concepts of the students and makes learning fun and frolic.

To sum up, 'Tutapoint' is a pioneer platform where people have the option to study online by reserving time and space beyond formulating and coordinating the lectures which could be categorized under several courses i.e. mathematics, science and SAT preparation. This facilitates the user to opt for the subject they are interested to get the lectures on. What people look forward to in today's world is the opportunity to receive the best of knowledge. This demand is fulfilled on this site by providing the users with the best graduate/ post graduate scholars. All this is accompanied by a very easy to schedule learning session and opting for the desired tutors.

The challenges:

- The application consists of information and data pertaining to the various courses, student users and tutor's profile. As a result, backend created was perceived to be very bulky and voluminous. In order to maintain the integrity of the site it was necessary to administer the website in such a way that the complex backend would not be revealed to the user. Hence, the key challenge was to design the UI of the website incorporating numerous different approaches mandatory for the system, displaying them in an uncomplicated way so that the website should look simple & easily readable. Fullestop had to look at creative and unique ways to optimize code and UI of the website so as to present a unique combination extremely desirable for "TUTAPOPINT".
- Fullestop faced the difficulty to sort a way out to enable proper communication between the tutor and the student. For this technology was required so that both the users could interact smoothly over the internet connection using smart phones.
- Problems concerning the session assigned to a user and the time out of such a session had to be perfectly timed so as to avoid every possibility of inconvenience to the users of the website and the time duration would be the maintained as planned.
- Another challenge for Fullestop was to create XML feeds of videos in such a way that all the videos get uploaded in the categories defined within a single click. These videos then again on a single click edit out preview videos as per the time duration defined by the administrator. Students would be able to watch videos which could be either pre-meditated or streamed live.
- The next major challenge was to challenge the other competitors in the market hence; we needed to increase our connectivity with consumers by implementing various advertising skills. It needed an aid through all possible social networking media.

- Fullestop had to look at creative and unique ways to optimize code and UI of the website so as to present a unique combination extremely desirable for “TUTAPOINT”.
- The next challenge was to provide a great navigation to allow visitors to find exactly what they’re looking for, much more quickly, easily and dynamically.

Campaign:

- Fullestop started exploring the best technologies and researched on integrating them into one single powerful system. Advanced optimization techniques were deployed along with highly refined code and database tricks to achieve a high performance dais for the website.
- Team Fullestop worked on several optimization techniques to handle the load of data generating every minute which included distributed memory object caching system to speed up the web application by alleviating database load.
- Team Fullestop adopted the popular design patterns and selected the open source applications that supported the level of reliability and quality.
- Develop a comprehensive system architecture that supports scalability, robustness and high performance.
- Develop site features to facilitate multi level menu system and multi user content creation.
- Design the architecture to support SEO
- Completion of core part of the project was followed by testing of the application in various scenarios.
- The various technical aspects were integrated in such a way so as to make the video sessions uninterrupted and bug free.
- The Fullestop team did a lot of Research and Development to sort out ways for proper communication between the tutor and the student. This was very much required to achieve a state of synergy in the system. Simultaneously enabling the users to communicate via their smart phones.
- Technologies including Flash Media Player and flex were explored especially to avail the students with the best possible learning experience the students had to be provided with the facility to access to the best tools that were currently available to enhance the virtual classroom experience. These tools include a shared whiteboard space, which was called a “virtual chalk board,” where student and the tutor could mutually write notes and equations. The shared

whiteboard also includes an area for videos where you can see your tutor during the session, as well as voice chat, which requires a microphone. Additionally, a chat window was made available for communication between the student and the tutor.

The Results:

Fullestop successfully achieved the objectives of the client by giving attention to challenges, understanding and realizing the key areas to work on, deploying best technologies to support the idea and committed efforts. The resultant website offered live chat, online video, interactive sessions between tutor and students using white board, scheduling of sessions and also online payments.

Technology Used

- Flash Media Server
- Flex
- PHP
- MY SQL
- J-query/CSS
- AJAX
- XHTML

Acknowledgement by our patron

“The best team to work with. Very co-operative and efficient”