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Software to Convey & Assist Medical Treatment Guide for Atypical Children

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Abstract: ***The aim of this project is to build an informative software for medical professionals to assist the atypical children and make them understand the procedure of treatment and how it will be helpful to them. Along with a user friendly, responsive interface the dedicated platform for abnormal children has some attractive features to guide step by step treatment process via audio visual content with sub-titles. In this software multiple language feature is provided to explain those contents to children for their hustle free treatment in an easiest possible way. Starting from real life examples to animated videos and cartoonist images are available in this software for proper understanding and further encourage them for their treatment. This web based and android application focuses on motivating the children for cooperating with medical specialists and help them to overcome the fear of treatment. The ML based strong recommendation algorithm is also integrated in this multi-platform support application such as recommended videos, recommended languages etc. This is an open source , free and easy to use platform that provide advantages for medical experts as well as guardians of the children***

Keywords: Medical Professional Assistance; Android Application; Web Application; Children's Understanding; Atypical Children Guide; Special Child Health Care

I. INTRODUCTION

According to the comprehensive statistical analysis of UNICEF around the world, approximately 240 million children are born with disabilities. From the medical research it is observed that with the growth of population based on the current situation there is 1 in 10 children who are facing abnormalities. At the time of critical treatments children with mental disorder face stress, anxiety and panic attack which will result in distraction of the doctors and hospital authorities.As per research, short video segments enable more effective processing and memory recall for children with mental disorder who are unable to understand some situation. With the help of some digital platform in medical field doctorswill be able to divert mind of those children. Health professionals can be more friendly with those children by using some animated videos and electronic gadgets.The abnormal kids with complicated medical requirements are being looked after with special care by their families and the respective medical professionals. Due to considerable improvements in critical care and surgery, many kids who may have previously struggled with the disorder, they will also be cared athome.

Though many ways are there to make children understand regarding a situation but using modern technology and attractive content, it will be easily understandable to those children. This initiative was taken to reduce the difficulty of the children as well as their parents and respective doctors. Along with the resolve of the above-mentioned difficulty children will get to know about the treatment and its consequences in the future and will also help in their mental growth in an enthusiastic way. Although medical specialists are using images and their special careto make those children understand regarding a situation but with the advancement of technology especially in dedicated OTT platform it is very much possible to assist their parents and the doctors to convince the children in a convenient way.

The objective of this project is to help the people globally from home, hospitals, and other autism treatment centers. This open-source platform can also be used to get reminders or notifications of daily medication usage and suggestions for sustaining good health. This software will provide blog posts of solutions on various health related issues. The software design incorporated the following functional requirements:

1) Responsive design, flexible UI, and native features.
2) Live doctor webinars.
3) Different accounts for doctors and parents.
4) Videos with subtitles on different languages.
5) Recommended animated videos and images.
6) Categorized videos.

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7) User comments and reviews on the video.
8) Offline download.
9) Available for all devices i.e., Android, IOS, etc.

Our main target is to simplify the techniques of explaining different situations faced by those children during their treatment. Our software showcases a framework that can be deployed based on real life scenarioswith the future upgradations like treatment-based simulation games on respective health issue. We will present some easy playable exciting games for children to grab their attention. The games will represent a sad face becoming happy after treatment and for a happy face we need to take good care of our health with the procedure of the treatment. There will be some additional features which will open earning ways to some people by providing two subscription plans i.e., a free plan and a paid plan (Ad-free). From the free plan people will experience some banner ads and some paid promotions ad. Some people can also earn by providing medical videos, voice overs and blogs.

Along with strong search algorithm the system has a personalized dashboard for the users. It has some attractive features like wish list to watch contents later, content watch history. Both dark &light mode options are available for the users. Easy share option for any content is present here. Social login via Facebook and Google is provided for easy login. Our system is safe because it has all the necessary facilities like simple and easy to understand UI, secure login panel with two factor authenticationfeatures, so there will be no risk of data leakage or crashing of the system.

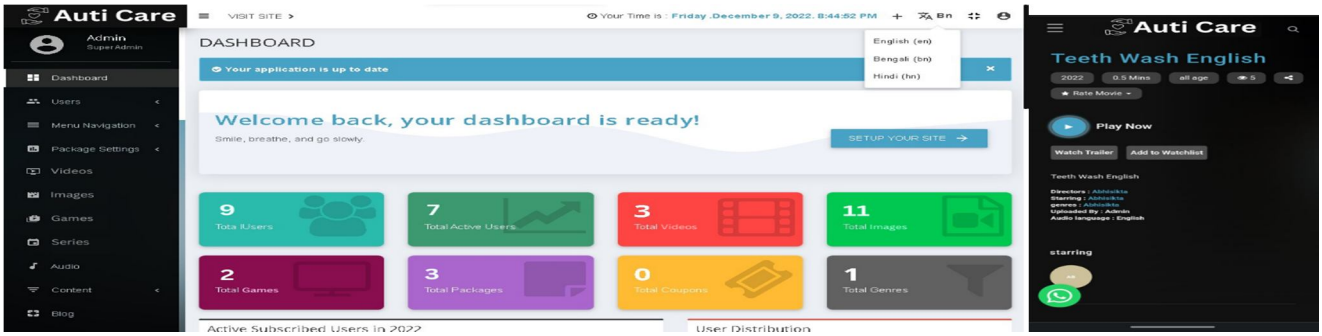
II. PROPOSED SYSTEM

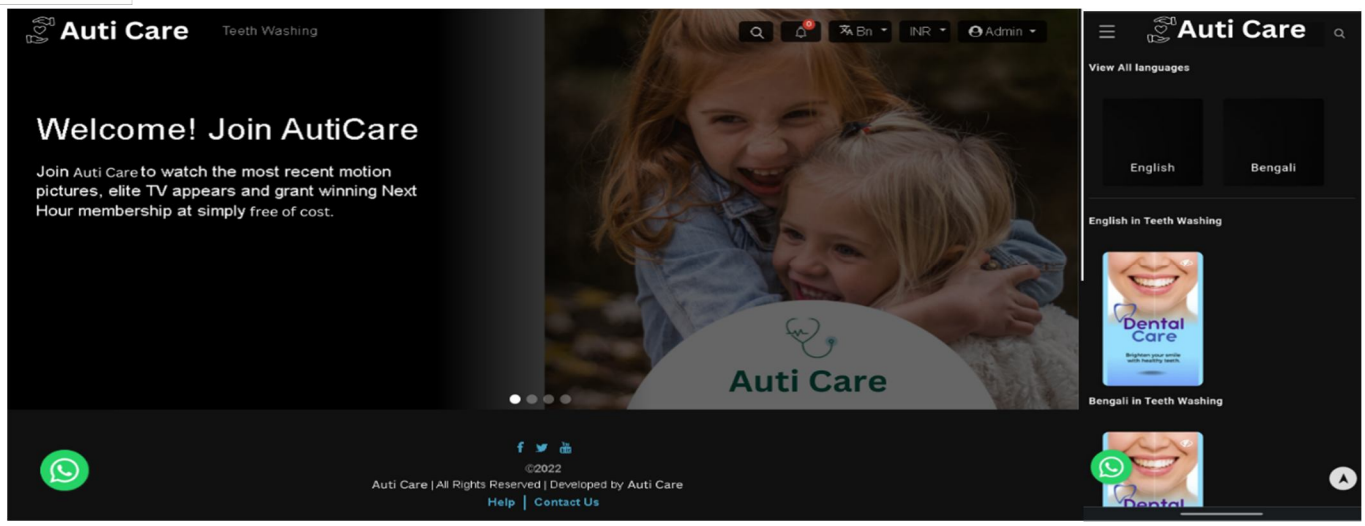
The remaining decade, we have discovered an incredible use of mobile learning applied sciences specially in excessive faculties to teach autistic child globally. A new academic environment has been created into the digital media. These units have attracted interest, by means of the academic neighborhood frequently due to their versatile learning capabilities. Every new module of this software brings modern aspects that makes it greater handy and affordable, and new apps that make understanding system simpler come to be accessible continually. Mobile apps are an increasing number of turning into ubiquitous, penetrating and transforming everyday social views and practices. These practices can be accompanied with text documents in extraordinary formats, audio-visual contents with videos, applications, and social networks. Smartphones are no longer solely a device for communication, however in many instances have come to be an instrument of people's social and work life, and possibly, an effective instrument in tutorial life. Therefore, center, and greater schooling in developed and growing nations are now trying to set up the use of smartphones in the studying system from distinct views and educating learning methods.

Mobile gadgets such as smartphones and capsules are gaining popularity due to their distinctly robust computing functionality constructed into small sizes and their internet connectivity. The opportunity of quite several sorts and easy-to-use cellular software applications approves customer to inspect choice studying and conversation methods. Mobile apps additionally are now gaining growing function and recognition throughout instructional lookup. It is estimated that via 2022, 90% of human beings gaining access to the net will do it via smart phones. Mobile applied sciences are now gaining accelerated attention and reputation throughout medical sectors, which has led to innovation in this kind of app design.

PHP is an open-sourcelanguage which allows anybody to write and execute code through the browser as a web view and is especially well suited to design websites for data analysis and educational purpose. The proposed system is built using PHP language which is a popular general-purpose scripting languagefor making dynamic and interactive Web pages. Using MySQL Cluster,it enables users to meet the database challenges of next generation web, cloud, and communications services. To make this platform responsive and user-friendly HTML, CSS & JavaScript is used.

A. Dashboard Preview





Web ViewApp View

III. FUTURE SCOPE

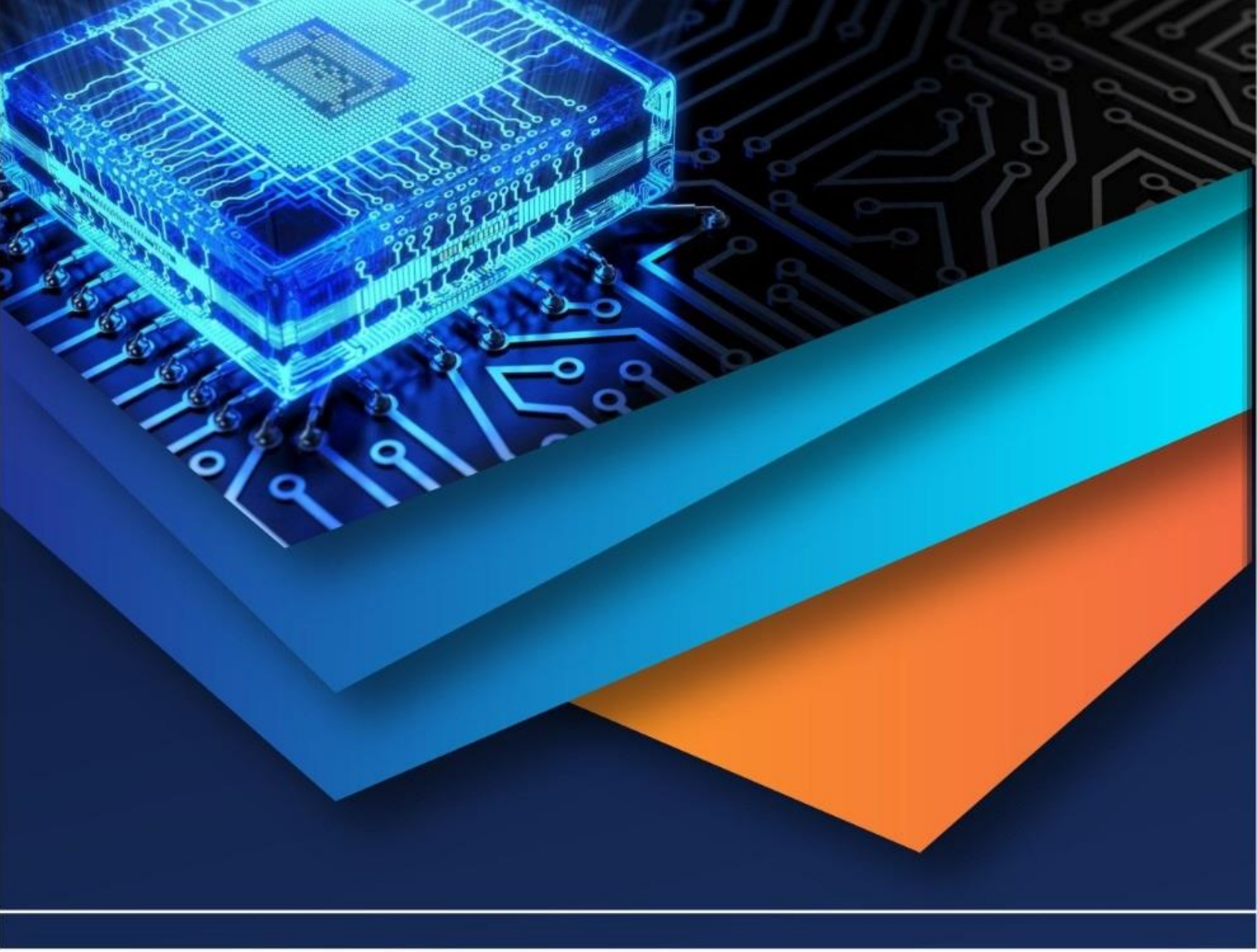
The software can be upgraded by adding up smart features like having a language-based AI voice assistant for minor voice chats between the assistant and the children and smart games like medical treatment related video games, 3D simulators, etc. The usual id password-based login system can be replaced with facial recognition or by fingerprint for more secure and fast login for each user. This system can help to run the understanding process in an organized manner and to keep a detailed record of these special children.

IV. CONCLUSION

This work represents a convenient, well designed and a useful app-based website. It has advantageous feature such as the ability to suggest specific contents accordingly to the users. It notifies automatically when new contents are published. This educational solution for Autistic children can provide a major advancement for the complete autism society. The key to running a successful platform with the sentimental data is the ability to exploit the amorphous data for functional insights. The purpose is to serve by web-based android application, which largely depend on the manually created contents from parents and specialists.

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