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KARNA - An Application for Babies/Toddlers with Hearing Impairment and their Parents

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Abstract: ***KARNA is an application for babies/toddlers who suffer from hearing impairment from before birth or after birth. Hearing impairment can have adverse effects on the lives of such babies and their families. This application will provide sign language guide for toddlers and their parents, speech therapy for toddlers along with a community for experience sharing for parents and also complete information regarding hearing impairment and the problems faced by these kids, solutions, new technologies available for new born babies and toddlers who have hearing impairments.***
Keywords: Community, Experience sharing, Hearing impairment ,Sign language , Social awareness.

I. INTRODUCTION

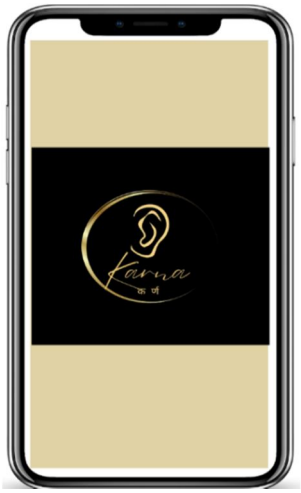
Hearing impairment is defined by IDEA as "an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance" [6]. Deafness can be depicted as partial or complete loss of hearing. Inner ear or nerve damage usually results in hearing impairment. It can be inherited or can be caused by various diseases, injuries, certain medication/drugs, by being exposed to loud noise or due to age-related tear. Nearly 20% of the world's population, or more than 1.5 billion individuals, suffer from hearing loss.

Hearing impairment has an adverse effect on lives of infants and toddlers from every perspective from speaking to expressing till getting education and leading an easier life. This also has a major impact on their parents because in most of the cases the parents are unaware of their child's impairment. This overall experience becomes traumatic for the child and the inexperienced parents because of very limited authentic sources of information and social awareness regarding hearing impairment in infants.

Various applications have been developed over the years to help people tackle the issues they have to face regularly. But these applications largely focus on providing sign language guidance to users. The proposed application offers a community for experience sharing, an user friendly individual profile formation, a menu to track progress, along with a sign language guide.

II. METHODOLOGY/EXPERIMENTAL

The first fragment of the application shows the logo of KARNA and then the next fragment contains the option for logging in or signing in.



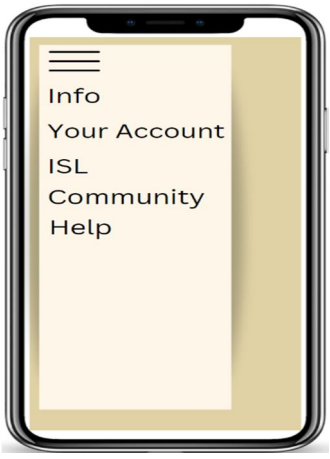
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Our application contains login / sign in interface which need basic login credentials such as username and password.



Registration is required for new users.
Menu, option is visible which contains multiple options to access information, ISL, community, and your own account.

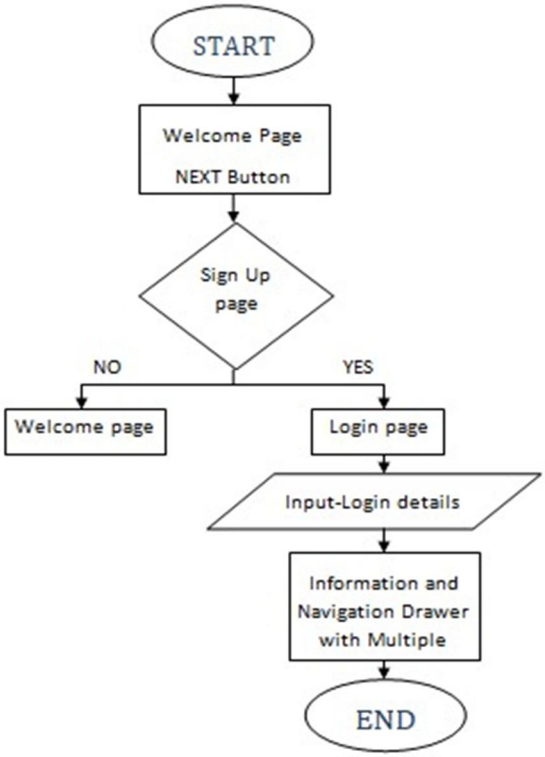


Community page gives you the easy platform and access to people who are suffering from same physical and mental health.

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A. Algorithm



III. RESULTS AND DISCUSSIONS

This application provides various features like sign language guide , community for experience sharing , user friendly login interface , menu to track progress at one place. This application will definitely make an effort to make their lives easier with a joyful and fun experience for infants/toddlers.

IV. FUTURE SCOPE

This application will enable users to attend lectures and seminars on sign language and speech therapy by audiologists and doctors at their home. This application will facilitate to make appointments with respective doctors/audiologists from their home through online mode.

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V. CONCLUSION

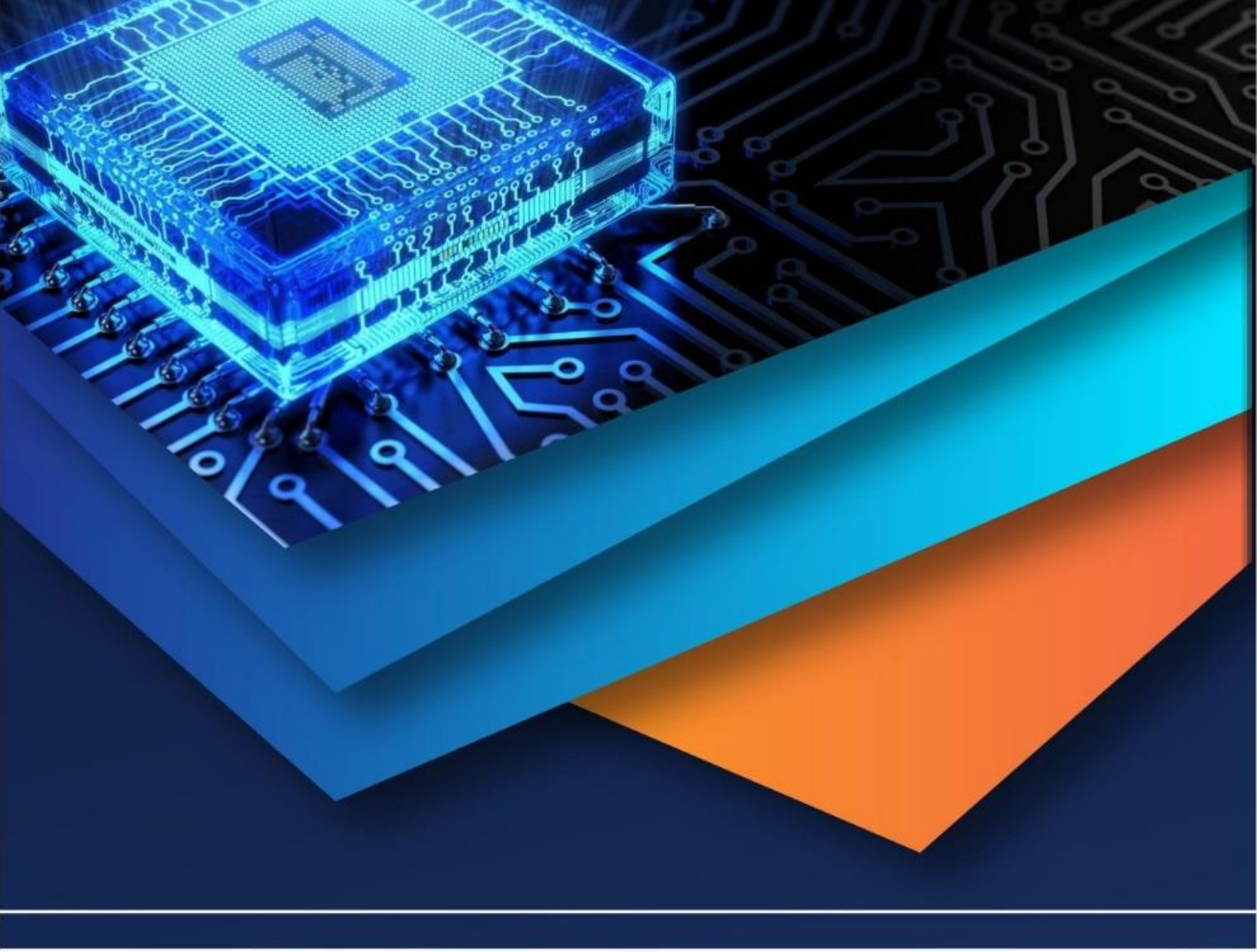
This application helps infants/toddlers along with their parents and families to learn sign language, feel accepted by the society for who they are by interacting on experience sharing platform , sharing problems and getting solution to them by people who went through the same phase. This application enables user to create profile easily and track their child's progress.

VI. ACKNOWLEDGEMENT

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REFERENCES

[1] Landry SH, Smith KE, Swank PR (2006) Responsive Parenting: Establishing early foundations for social, communication and independent problem solving development psychology.
[2] Jones L, Allebone B (2013) Researching, "Hard to reach groups": Some methodological issues. Goldsmith University of London.
[3] Dunphy E (2008) Supporting early learning and development through formative assessment. Merrion Square, Dublin 2
[4] Landry SH (2008) The role of parent in early childhood learning, Children's Learning Institute: university of Texas Health Science center, USA.
[5] American Joint Media Committee (2007) Principal guidelines for early hearing detection and intervention programme.



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