



**FINAL YEAR PROJECT REPORT**

**WEB APPLICATION FOR THE VISUALLY  
IMPAIRED PEOPLE**

**In fulfillment of the requirement  
For degree of  
BS (COMPUTER SCIENCES)**

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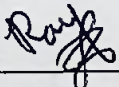
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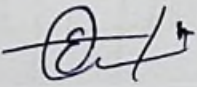
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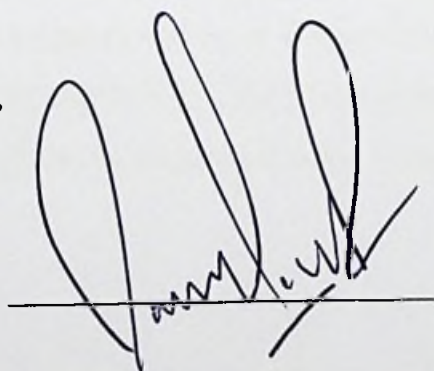
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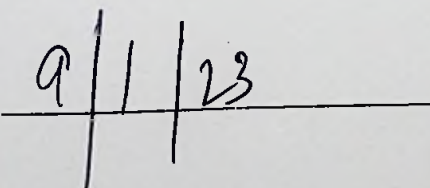
We certify that this project report entitled **WEB APPLICATION FOR THE VISUALLY IMPAIRED PEOPLE** prepared by **EHTISHAM AKRAM, SHAHZAIN SHAHFIQUE & RAYYAN GAZDAR**, has met the required standard for submission in partial fulfilment of the requirements for the award of Bachelor of **Computer Science** at Bahria University. Approved by,

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A handwritten signature in black ink, consisting of several large, stylized loops and a horizontal line at the bottom, positioned above a horizontal line.Supervisor: **MISS FATIMA BASHIR**

Date :

A handwritten date '9/1/23' in black ink, with vertical lines separating the digits, positioned above a horizontal line.

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## WEB APPLICATION FOR THE VISUALLY IMPAIRED PEOPLE

### ABSTRACT

Despite the advancement in web-based technologies, there remains a vacuum for providing accessibility to people with disabilities. After careful observation of the web services available out there, we are excited to propose a web application for visually impaired people. There are limited resources available which ensure efficient usage of the web and its services by visually impaired people. With this project, we would cater to the needs of the visually impaired by developing a web application which they can use effortlessly and feel more inclusive.

We aim to ensure that there are no barriers for people with disabilities to use web services. For this purpose, we will be developing a web application the visually impaired people. The visually impaired and the blind often need the help of another person who would use web applications on their behalf as the web applications are not usable by themselves. We would like to empower people with visual impairment and enable them to use web services on their own without needing the help of anyone else.

This application would utilize a two-part functionality. The first one would be text-to-speech. Users would be able to navigate around the web application and use its services through a generated voice that would guide them as they hover around the web page. In this way, people with visual impairment can use web services easily without needing help from a third person. All the functionalities of regular web applications would be accessible to them. The second part of this application would include voice inputs and uses speech-to-text. The visually impaired users input their speech as commands which are then interpreted and converted into text and matched with the data stored in our database while other navigational commands are used to perform various other operations.

*Keywords: Visually Impaired, Text-to-Speech, Speech-to-Text*

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