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Engo-The Language Learning Application

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***Abstract* - This paper presents the efficacy of an interactive language learning application, designed to enhance user's communication skills in a formal context. This application offers an interactive platform to the user to practice writing letters, essays and to strengthen their grammatical proficiency. The objective of this research to contribute to understanding the role of technology in language education, particularly in formal communication skill. This research informs the development of future language learning application aimed at empowering user to become confident and proficient communication in the language.**

Keywords: Language Learning Application, Communication skill, Formal context, Writing practice, Grammatical proficiency.

I. INTRODUCTION

In today's globalized world, language proficiency especially in formal communication is very important for every individual seeking to succeed in professional and social spheres. The primary objective of this research project is to explore the feasibility of language learning application, to emerge as convenient and accessible means for individuals to improve their language skills. By harnessing the capabilities of programming tools the language learning application offer comprehensive features aimed to skill development in a formal context. This application includes the features, diverse exercise for grammar, phrases, writing practice of letters, essay, accent and tone of emotions.

The significance of this research project language learning application lies in its potential to contribute to help to the user to learn the language particularly in formal communication with accent. By providing an interactive interface with diverse features for proficiency and effective communication, this study aims to shed light in efficacy of language learning application addressing the needs of language learners. This research explores the role of technology-enhanced language learning tools to empower the learner's confidence and proficient communication in formal way.

1.1 Project Aims and Objectives

The project aims and objectives that will be achieved after completion of this project are discussed in this subchapter. To develop a user friendly application with interactive interface having diverse features and exercises focusing on formal context.

Objectives and Aims:

- To conduct a thorough review of existing literature on language learning methodologies, technologies enhanced learning and features relevant to formal communication skill development.
- To design and develop an interactive language learning application incorporating features such as writing exercise, grammar and accent.
- To establish a communication interface between the software and hardware components of the robotic arm system to enable seamless integration and control.
- To provide user with access to the language learning application and instruct them to use it regularly over a specified period.
- To collect data of user's performance and provide exercises based on their performance metrics.
- To conduct quizzes to check improvement in user's communication skills their grammatical proficiency and accent after using the application.
- To analyze the collected data to evaluate the effectiveness in achieving stated objective and identify areas for further improvement.

1.2 System Objectives

Interactive Platform: Develop an interactive platform that facilitates active engagement and participation in language learning activities, providing a dynamic learning experience.

Diverse range of exercise: Providing diverse range of exercise and quizzes for practice to enhance their skills by writing and listening.

Accent Training: Incorporate accent training to improve learner's pronunciation and intone to develop clear and impactful speech patterns.

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Continuous Improvement: By analyzing the data of learner's performance metrics, change the level difficulty of exercises.

Empowerment: Empower users to become confident and proficient in communication skill to improve their professional and social context.

II. METHODOLOGY

1. **User Requirement Analysis:** By survey surrounding's learners, their needs, challenges they face during learning related to formal communication, grammar, accent and emotion comprehension in learning.
2. **Review Existing Application:** Survey research papers, review papers based on language learning application, methods, formal communication context, grammatical literature.
3. **Decides Features:** Decide the objective of project language learning application and features especially focused on more formal context, listening and writing practice related to formal content. Try to add the features will helps to learner to become confident and proficient in formal communication.
4. **Build Prototype:** Based on decided features and past surveys develop prototype of language learning application. Integrate technology focusing on usability, feasibility and functionality.
5. **Programming Tools Selection:** Considering the main objective of the language learning application select appropriate tools including VScode for IDE (Integrated Development Environment), Django framework, Python libraries, Html, CSS for frontend designing.
6. **Begin Development:** Start developing the language learning application using required programming tools focused on decided features to offer an interactive platform.
7. **Testing of application:** Conduct testing to check the functionality, feasibility and performance metrics. Identify the issue and solve it immediately using the programming tools.

2.1 Programming Tools

The following programming tools have played a vital role in the development of language learning application to provides user an interactive platform to enhance their communication skills in a formal context. Because of the flexibility of this programming tools language learning application has empowered user to become confident and proficient communicators.

1. **Visual Studio Code (VS Code):** Vs Code is an Integrated Development Environment (IDE) provides a robust platform for writing, editing, and debugging code. Its user friendly interface gives an efficient development.
2. **Python:** Python is an easy language with extensive features and libraries. Its simplicity readability was helpful to develop the application easily.
3. **Django Framework:** Django is a high-level python web framework used as backend development for the application. It's built in features such as database (dB SQLite), authentication system ensured the security and accelerate the development process of application.
4. **HTML (Hypertext Markup Language):** HTML used to structure the content of the application. It provides the framework for text, images also it's easy to implement, facilitate a seamless learning experience.
5. **CSS (Cascading Style Sheets):** CSS used to style the application's templates which give an amazing look to the application. It enabled to ensure a responsive and mobile friendly design across different devices.
6. **JavaScript:** JavaScript played an important role to give interactivity and dynamic functionality to the frontend of application. It used for interactive exercises, real-time feedback, and to enhance user's learning experience.

2.2 System Design Flowchart

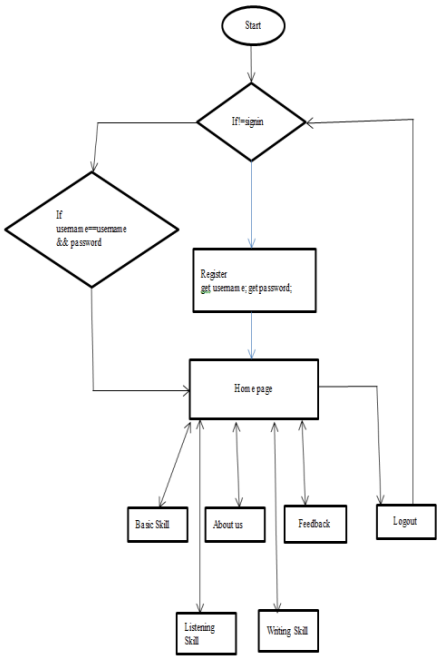

Figure 1: User flow while handling the application

III. RESULT

The language learning application has successfully achieved the objective to provide an interactive interface which give feasibility to the user to improve their formal context. Through the provision of diverse exercise for writing letters, essay, and grammatical practice user can exhibit

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greater confidence in initiating formal interaction, formulating appropriate questions, composing structured formal letters. Through interactive exercise and guided practice user will be able to deeper understanding of formal communication convention, including language use and tone.

3.1 Output

Testing and validation procedures were conducted to assess the accuracy of the language learning application. These tests demonstrate that the application has achieved the objective with smooth functionality and feasibility so that user can handle it easily.

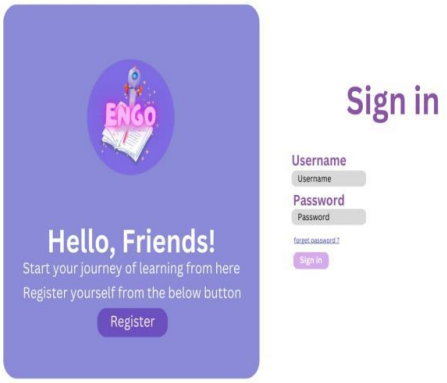

Figure 2: Sign in page of Language Learning Application

Figure 3: Home page of Language learning application

IV. CONCLUSION

This project has shown the efficacy of an interactive language learning application tailored to enhance user's formal communication skill by providing a comprehensive solution for language learners. This project underscores the significance of technology in facilitating language education particularly in formal context. This project contributes to advancing our understanding of effective language learning methodologies and underscores the importance of integrating technology to empower individual on their language learning journey.

V. FUTURE SCOPE

Multimodal Learning: Incorporate the multiple modes of learning by integrate multimedia resources such as video, audio recording for more interactive exercise.

Advanced Emotion Recognition: Enhance user's ability to communicate effectively in diverse social and professional context.

Integrate Educational Institution: Collaborate with educational institution and language learning organization can expand the impact of language learning application.

Personalized Learning Path: Integrate with artificial intelligence and machine learning algorithm to analyze user's performance metrics can offer personalized recommendation to optimize learning outcomes.

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REFERENCES

[1] Catherine Regina Heil, Jason S.Wu, Joey J. Lee (2016). A review of mobile language learning applications: trends, challenges and opportunities, 32-50.

[2] Jiejin Luo, Zhe Li(2018). The Development of English Language Learning Application Based on Smart Phone.

[3] Monther M. Elaish, Liyana Shuib, Norjihan Abdul Ghani, Elaheh Yadegaridehkordi, Musaab Alaa (2017). Mobile Learning for English Language Acquisition: Taxonomy, Challenges, and Recommendation, 19033-19047.

[4] Wang S. and Smith S. (2013). Reading and grammar learning through mobile phones. Language Learning & Technology (17) (3):117-134.

[5] Meng-Lin Chen. (2022). The Impact of Mobile Learning on the Effectiveness of English Teaching and Learning-A Meta-Analysis, 38324-38334.

[6] Jurafsky D. & Martin J. H. (2008) Speech and Language processing: An introduction to speech recognition.

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https://doi.org/10.47001/IRJIET/2024.803061

[7] Kukulska-Hulme A. & Shield L. (2008) An overview of mobile assisted language learning: Can mobile device support collaborative practice in speaking and listening.
[8] Smith J. & Johnson A. (2020) The Effective of Duolingo in Developing Spanish Language Proficiency in University Students, 45-62.
[9] Chen L. & Lee S. (2018) A Comparative Study of Vocabulary Acquisition Using Memrise and Traditional Flashcards, 312-329.
[10] Garcia M. & Martinez R. (2019) The Impact of Gamification on Motivation and Learning Outcomes in Language Learning: A Case Study of Duolingo, 78-94.
[11] Kim E. & Lee H. (2017) Assessing the Effectiveness of Rosetta Stone in Teaching English as a Second Language to Adult Learners, 220-237.
[12] Wang Y. & Zhang Q. (2021) The Role of Social Interaction in Language Learning Apps: A Case Study of HelloTalk, (145-162).
[13] Li X. & Chen W. (2019) Mobile Language Learning: Exploring User Perceptions and Practices, 201-218.
[14] Park H. & Kim S. (2022) Effects of Individual Difference in Cognitive Abilities on the Use of Language Learning Application, 102-118.
[15] Nguyen T. & Tran L. (2020) The Influence of Cultural Adaptation in Language Learning Apps: A Comparative Analysis, 64-81.

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