INDIAN ACADEMY
Degree College - Autonomous

DEPARTMENT OF COMPUTER SCIENCE

Synopsis on

E-LEARNING APP FOR AGED / NON-TECH SAVVY

Project Reference Number: 46S_MSc_165

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Introduction

E learning is developing as a widely used concept of learning in India. Technology has been the major aspect to drive this concept of e- learning. E-learning is use of technology to deliver solutions that enhance knowledge and performance. It is an inclusive term that describes educational technology that electronically or technologically supports learning and teaching not only to the students but to the non tech savvy people to improve their skill in using smartphone based applications. This E-learning app is designed to help users acquire skills to use a smartphone features effectively. Especially, for non-tech-savvy users, this app can be a bit overwhelming or intimidating. Therefore, it's essential to create a user-friendly interface that is easy to navigate and understand how to use the smartphone apps conveniently. This app would use images, videos, and infographics to explain the topics in their regional languages. Visual aids help to make learning more engaging and easier to understand the concepts. It demonstrates the process in steps using video demonstrations that guide users through the app's features and functionalities. The implementation of the regional language for the app demonstration enable the users to understand the concepts clearly. It offers a unique sections including basic utilities, e-commerce, social media streaming platforms, government schemes, law and enforcement, language based tutorials, etc. This app would enhance the user adaptability to smartphone apps and to interactively learn the current affairs including law and order. It also offer support and guidance through the app to improve the learning experience of the users and to assist them through the media.

Literature survey

1. Techno Savvy Trends In Teaching And Learning The English Language, **Rajani Rajabhau Waghmare**
   The proposed area of this research paper is to study teaching and learning of the English language with the help of tech-savvy implementations. This study will also provide significance on web-based technology, internet communication, e-learning, online assessment, and methods of teaching through tech-savvy mode. It stimulates new possibilities for the teachers and learners.
2. App Name : E- Sarvajanika Granthalaya
   It gives access to various digital contents in kannada and in English language
   E- Sarvajanika Granthalaya has the following types of contents in kannada and English language:
   Ebooks – Digital Books

Videos – Videos on different Subjects
Simulations – interactive Experiments

Disadvantages :
No latest trending topics Contents
Based on library books and journals

Objectives

- The objective of this app for non-tech-savvy users is to provide an accessible and user-friendly platform for them to assist and to guide them effectively to use the smartphone along with its features.
- The app is designed to cater to the needs of individuals who may not be familiar with technology or may feel intimidated by complex interfaces, using video demonstrations in regional language.
- To improve quality of users learning by offering them with various sections included in the app such as e-commerce, social media streaming platforms, government schemes, law and enforcement, language based tutorials, etc.
- To provide an effective learning app for non tech savvy users helping them to achieve their basic requirements through in-built sections in the app.

Methodology

Adopting a systematic methodology that encompasses user research, planning, design, development, testing, deployment, monitoring, and iterative improvement is essential for developing an e-learning app for non tech savvy people. By following these below methodology, we ensured that the app effectively meets the needs of the target audience and provides a user-friendly and accessible learning experience.
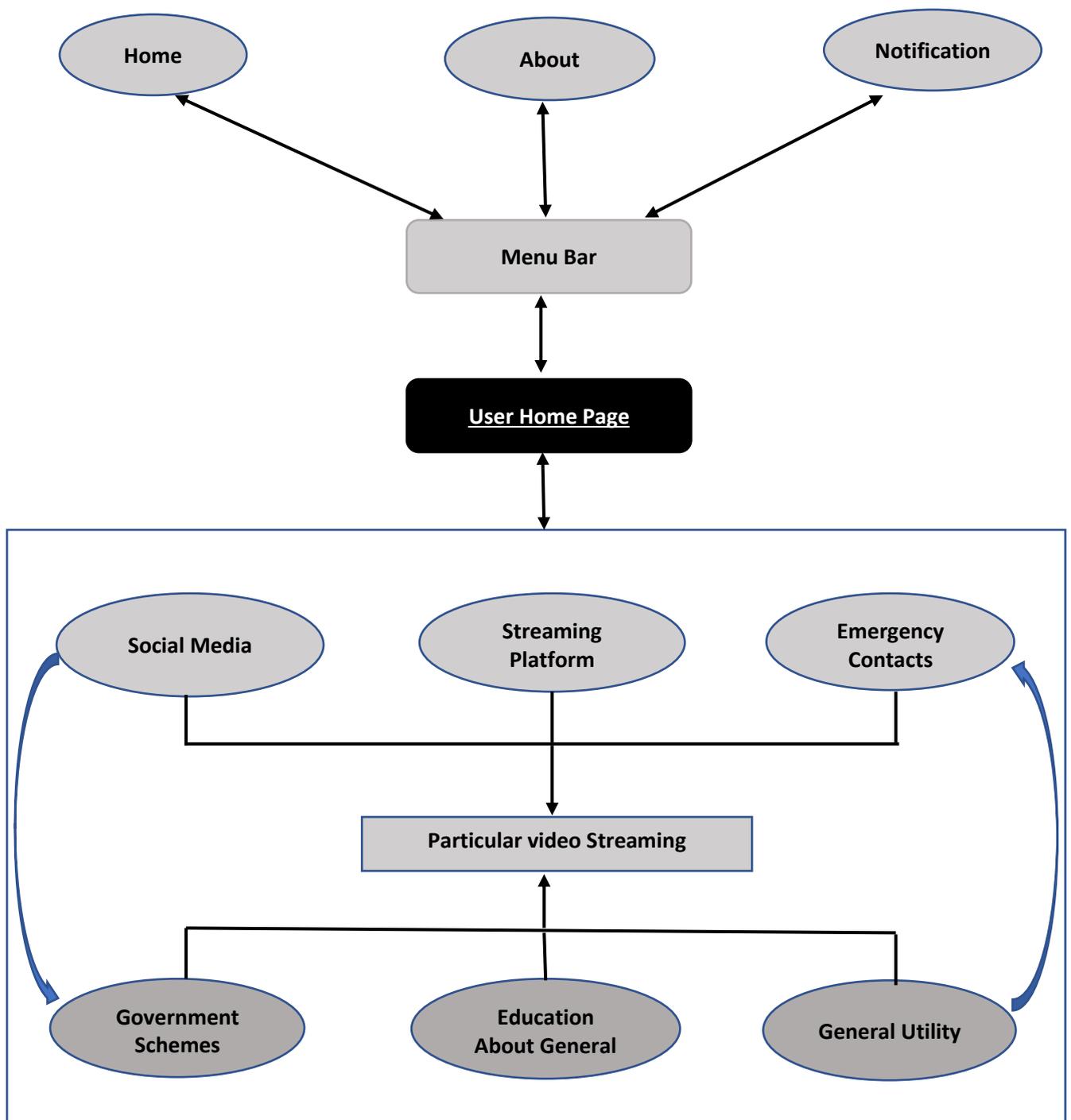

Agile Methodology

1. **Analysis and planning**

   The analysis and planning phase is crucial for developing an e-learning app that caters to the needs of non tech savvy users. By conducting through user research, defining clear learning objectives, developing tailored content, ensuring a user-friendly interface, and providing guided onboarding and support, the app can be designed to meet the specific requirements of this target group. Continuous

improvement based on user feedback will further enhance the app's usability and effectiveness in facilitating a positive learning experience for non tech savvy individuals.

2. Design the user interface

Designing the user interface for an e-learning app targeting non tech savvy individuals requires a focus on simplicity, clarity, and ease of use. By keeping the interface simple and minimalistic, using clear navigation, readable fonts, concise language, visual cues, and multimedia elements, the UI can be designed to cater to the specific needs and preferences of non tech savvy users.

3. **App development**

App development for an e-learning app targeting non tech savvy users requires careful consideration of their unique needs and limitations. By choosing the right technology stack, implementing responsive design and accessibility features, providing intuitive user onboarding, streamlining the UI and navigation, handling errors effectively, the app can be developed to meet the requirements of non tech savvy individuals and provide them with a seamless and enjoyable e-learning experience.

Set up the development environment with Flutter SDK and configured necessary dependencies. Structured the project with proper organization and adherence to Flutter project structure guidelines.

Implemented the UI design using Flutter's widget-based framework, creating reusable components and screens.

4. **Application testing**

Application testing is essential for ensuring the functionality, usability, and accessibility of an e-learning app for non tech savvy users. By conducting thorough usability testing, compatibility testing, accessibility testing, performance testing, error handling testing, security testing, and implementing a continuous testing and iteration process, the app can be refined to meet the specific needs of non tech savvy individuals. This approach enhances the overall user experience, instills confidence in the app's reliability, and ensures a successful e-learning journey for non tech savvy users.

5. **Deployment and support**

Effective deployment and ongoing support are crucial for the successful adoption and usage of an e-learning app for non-tech-savvy individuals. By planning the deployment process, providing user onboarding and training, establishing reliable helpdesk and support channels, ensuring continuous support and updates, implementing data backup and security measures, fostering a user community, and enhancing user engagement, the app can be deployed and supported in a manner that meets the specific needs of non tech savvy users. This approach fosters user confidence.

Results and conclusion

It highlights the achievements and impact of the app on the target audience, focusing on usability, accessibility, learning outcomes, user satisfaction, and overall success in meeting the needs of non tech savvy users.

1. **Usability and User Experience:**
   Through usability testing, it was found that the e-learning app achieved high levels of usability and provided a positive user experience for non tech savvy individuals. Users reported that the app's interface was intuitive, navigation was easy, and instructions were clear. They appreciated the simplicity of accessing and interacting with the learning content, which contributed to a smooth and enjoyable learning experience.
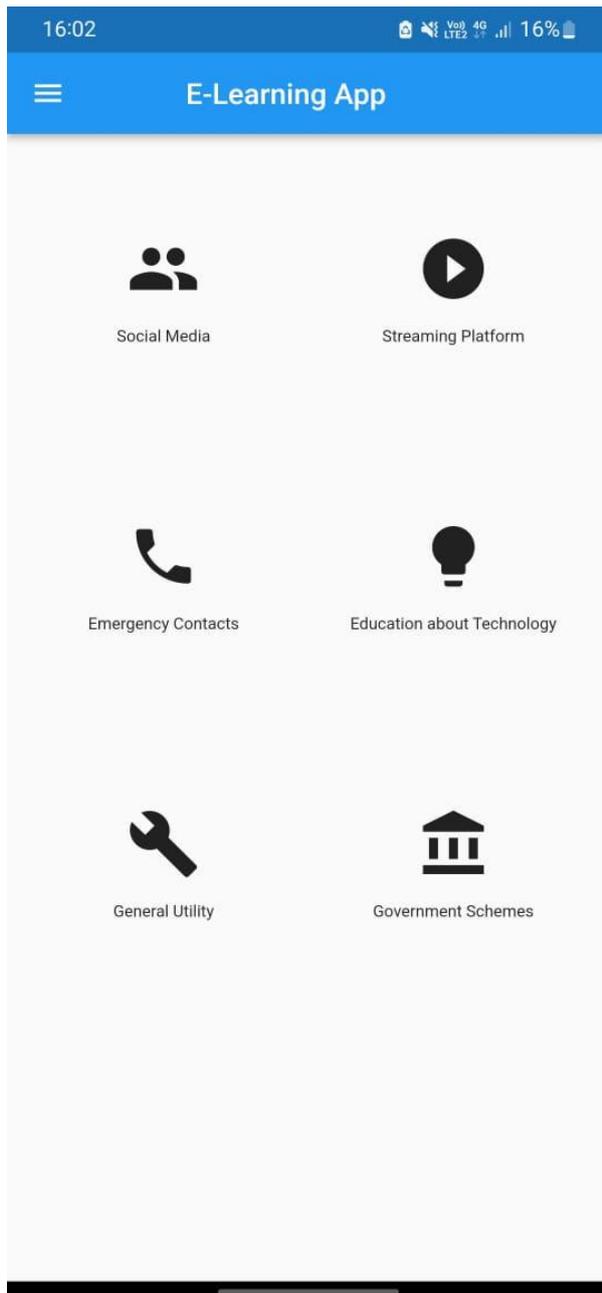2. **Learning Outcomes and Effectiveness:**
   The e-learning app demonstrated positive outcomes in terms of learning effectiveness for non tech savvy users. Users showed improvements in knowledge, skills, and competencies across various sections offered through the app.
3. **User Satisfaction and Engagement:**
   Non tech savvy users expressed high levels of satisfaction and engagement with the e-learning app. Users appreciated the app's ability to keep them motivated and interested in the learning content, leading to a consistent and active use of the app.
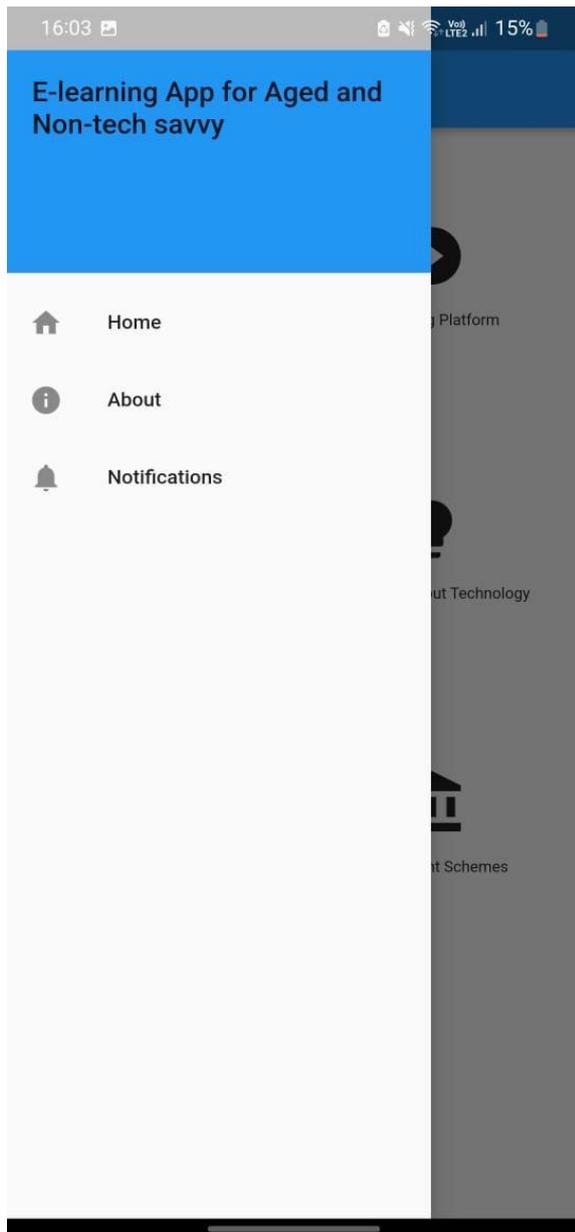
E-learning app for aged/ Non tech savvy is designed to help the people get familiar about using smart phone devices.

The main page includes 6 major sections that has unique features:
1. Social Media
2. Streaming Platform
3. Emergency Contacts
4. Government Schemes
5. Education About Technology
6. General Utility

The menu-bar is an essential component of application or website as it provides users with navigation options and access to different features here are some key considerations for designing a menu-bar in an E-Learning app.

1. Home : It will redirect or navigate to Home page.
2. About : The section provides information about the E-learning App for aged/Non tech navvy. It can includes the details like app's purpose, features.
3. Notifications : The notification section is where users can receive important updates , reminders and announcements related to app.

Conclusion

The results of the e-learning app for non-tech-savvy people demonstrate its effectiveness in addressing the unique requirements of this target audience. The app achieved high usability, provided accessibility features, and facilitated positive learning outcomes and user engagement. It successfully increased accessibility to education and empowered non-tech-savvy individuals to acquire new knowledge and skills.

Innovation in the project

1. **Voice and Video Instructions**: Incorporating voice and video instructions within the app can assist non-tech-savvy users in understanding how to use different features or navigate through the content. Providing audio or visual guidance alongside textual instructions can enhance comprehension and engagement.
2. **Language Support**: Providing language support within the app can cater to non-tech savvy users from native linguistic backgrounds such as Kannada.

Scope for future work

1. Voice based search
2. Expanding Content Diversity and Language Support
3. Offline Access
4. Support and help desk
5. Captions and transcripts for multimedia content
   Users with hearing difficulties found value in captions and transcripts for multimedia content. The app's implementation of keyboard accessibility and other assistive technologies ensured that individuals with motor skill limitations could effectively engage with the learning materials.