

AI Radio App



Jitendra Saturwar, Dhruv Sheth, Yash Shah, Riddhi Siddhpura, Tanvi Dhumal

Abstract: We present a live streaming app for Android And iOS devices and Web using URL. The app is useful for three reasons first, all your favorite radio stations will be grouped in one place, and hence, you can easily play and switch from one station to another without any hassle. Second, it is an app that turns your device into a radio setting you listen to live streaming stations while in the office, on the road, or in any other setting. Third, it is the Voice assistant-based app that takes input from the User command and plays channel according to the command. The app is similar to Spotify but on a smaller scale. This application provides a facility to listen to your favorite music anytime, anywhere. It provides live streaming from radio stations all around the globe. It is distinct from on-demand file serving. Internet radio is also distinct from podcasting, which involves downloading rather than streaming. Many Internet radio services are associated with a corresponding traditional (terrestrial) radio station or radio network. Internet using radio stations are independent of such associations. Internet radio services are usually accessible from anywhere in the world. The app has two main contributions:

- 1) We describe all the steps and components needed to develop such an app.
- 2) We also discuss the functionality and the trade-offs using different components and approaches. Radio audiences will be formed of all segments of society even people who are handicapped.

Keywords: Mobile Application, Android, Media Player, Digital Streaming, Web radio, net radio, internet radio streaming radio, and e-radio.

I. INTRODUCTION

The radio is a "voice" that arrives without obstacles or barriers or physical means and is a means of mass communication described as a means of communication. The listener receives media messages through the radio, received by the ear as voices, and is affected by the performance of voice and the unique spontaneous. We can hear the radio anywhere, there is no compulsion that person should be educated. Here, research focuses on Radio as a

Manuscript received on March 17, 2022.

Revised Manuscript received on March 24, 2022.

Manuscript published on May 30, 2022.

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media station may be difficult to some people to imagine that the tremendous changes in the radio industry. Thus, if we prove that on the radio then it reflects all other media stations. However, The implementation of artificial intelligence has become mainstream in the development of social media due to its advantages of automatic data processing, content generating, and efficient interaction with customers, AI has become the main factor especially when we know the recent statistics, according to Statistic (2017), the number of smartphone users in the world is around 2.3 billion, and this number has been increased to 5 billion in 2018 according to the global digital report 2018 (digital report, 2018). Another global survey stated that half of the world's population (around 4.6 billion out of 7 billion people) is using smartphones (Statistic, 2019). The use of smartphones has become a ubiquitous and constant part of people's lives. Furthermore, a statistical survey (Hoot suite, 2019) showed that the total number of people using social media on their phones has increased over the years

II. LITERATURE SURVEY

Dr. Hassan Mustafa has proposed a paper called with project Rodriguez del as "Impact of Artificial Intelligence on Smart Media Stations (Smart Radio)". In that author has to tell the advantage of the radio in old age. the development of Artificial Intelligence and its influences in the communication technology industry generally. This paper presents a technical innovative platform that reflects media integration in one screen instead of multi-platform screens. The paper handles the Implementation of AI and how may help the audience to interact with smart media stations, addressing the challenges and concerns about new jobs than the new features and characteristics of the future and the experience of smart radio as a concluding business model. The radio will not be a blindly listening device anymore. Radio audiences will be formed of all segments of society even those who lost the blessing of hearing. The AI will play a massive role in taking participation decisions. The audience is not only receivers anymore; they are senders and producers as well. All audience Social Accounts will be implemented together when start using smart radio. AI will replace the Gatekeeper. The author has just given an idea of the implementation of AI in radio app. The author has not implemented this project. [1] The author develop an FM Radio App located in the city of Indonesia which has the motto "Information and Solution" The broadcast signal has limited covered areas because of the geographical condition of the city. Then, the other media is needed to solve a problem. This research aims to expand the broadcast area using Android radio streaming apps. Tools in this research are using computer hardware and software such as Java language programming, Android Studio, and XML language.

This research used the waterfall steps. The test using the black box shows that the apps running well and have no errors. The drawback of the app is it is available only for android users. And this app is developed for only one city in Indonesia. [2] Abdul-Rahman Milwood-Yunis has proposed an application name as A Live Streaming App for Android devices. This application was developed only for android using URL. This application is useful for two reasons. First, all your favorite radio stations will be grouped together in one place, and hence, you can easily play and switch from one station to another without any hassle. Second, it is an app that turns your device into radio and lets you listen to live streaming stations while in the office, on the road, or in any other setting. In this application, they have to use the media player component to live stream the radio station using any URL. This application has many drawbacks to playing the radio station we have to click on the URL then only it can play the live streaming radio. The user cannot customize the application. The framework or user interface is not user-friendly. The Prepare () method runs in the UI thread and thus it takes a long time. It will block your UI thread and a user might get an ANR (Application Not Responding) message. On the other hand, runs in a background thread and thus your UI thread is not blocked. However, the Media Player object might not be prepared instantly so you want to set it on Prepared Listener to available know when the Media Player is ready for use. So, this stops the app from working and drains the battery life also. And the app also stops working. This application is not a cross platform. [3] Edison Jimenez et al develop the system for the smartphone app named smartphone radio app. It has many features such as playing news along with Jazz, Blues, Soul, Bluegrass, Folk, Americana, and Latin Jazz music to an audience of over forty thousand. The user can listen to music stream with device music also. Therefore, the goal of this project was to develop a native mobile application for the Android Operating System that would feature live radio streaming capabilities, display parts of the station's website in a mobile-friendly format, alarm functions, and donation capabilities. The research gap is that the framework used in the app is not user-friendly. Half of the features are not working that the time of production. The app takes a significant amount of time to load. [4] Cheng-Pei LIN et al have proposed a system called mobile radio app based on the kano model. The k model is used to satisfy the user of the mobile application. The kano model has five types (1) Necessary demand (2) Expected demand (3) The charm demand (4) There is no differential demand (5) Reverse demand. The kano model is used to explore the needs of the elderly for mobile station APP. The kano model takes the requirement from the elderly people. The developer takes the analysis from the kano model takes that radio station. After that final prototype of the mobile app is proposed. The key design elements. Finally, the interactive prototype of the mobile station APP is proposed. The application research of mobile station APP for the aged integrated with the Kano model not only provides a good user experience for the aged users. To provide the elderly with a good user experience of mobile radio products, this paper uses the Kano model to analyse the needs of elderly users and apply it in design practice. The main drawback of the system is that this app is

developed for the elderly people of China. This app framework designed is according to the old radio app design. The main disadvantage is that every time it takes the requirement from the user when a user opens the app that Therefore Kona model used in-app is very slow due to which the mobile radio app work slow. [5] Utkarsh Goel et al have proposed a system called an "E-Radio" or "Internet radio". This app provides the facility to listen to radio over 80 radio stations around the earth. The application is an audio service transmitted via the Internet. The application involves a web-based application so connect the radio station we need to connect to the internet. This application cast Music streaming on the Internet is usually referred to as webcasting since it is not transmitted broadly through wireless means only. Internet radio involves activities such as streaming media, presenting listeners with a continuous stream of audio. Many Internet radio services are associated with a corresponding traditional (terrestrial) radio station or radio network. Internet- only radio stations are independent of such associations. Internet radio services are usually accessible from anywhere in the world. The research gap is that to connect the internet radio there should active internet connection to connect to E-radio. There is no feature such as podcast, favorite, it also used data to transmit audio radio to the E-Radio application. It required minimum internet bandwidth of 128kbps. [6] Sajan das have proposed the software system name as a radio app for iOS devices. The app is coded in the swift language using a swift, swift kit, this app has the inbuilt audio player that can play device songs only. The user has to download songs to the device and play the song to the radio app. The radio has only one feature i.e. it has a share option to various social media links. The limitation is that it is available App store only and can be downloaded on iOS devices only. The main limitation is that is not a proper radio app because the app plays the songs from the device only. [7]

III. PROPOSED SYSTEM

Ai Radio App Use Flutter Technologies to develop the smart radio app that can take the input from the voice and also takes the text input. The Voice input is taken by Alan AI which is a Smart API that can record the user voice and performs that command for the users. The Alan AI also has inbuilt voice filter so it can filter unwanted noise of the user from the Background. The Ai Radio App also has the Radiopage in it. The user can listen the radio using the internet URL. The Ai radio also has inbuilt weather app that helps the user to check the current location weather in Fahrenheit format. The user can check the weather of any location around the globe. The Weather page work with help of openweathermap.org API which can call one lakh API call per second to check the weather data if it is correct or not. AI Radio App also has the Inbuilt Podcasts page in it. The podcast page has the podcast player which can play the podcast of any registered user.



AI Radio App

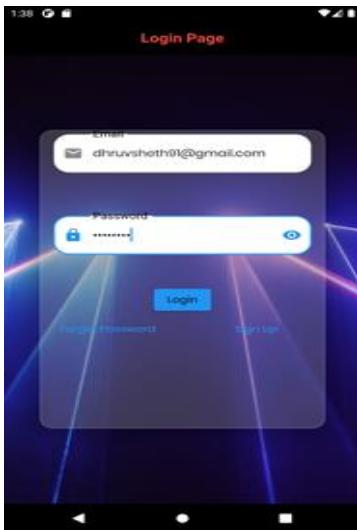


Fig 2. Output Response 1

Figure 3: shows the GUI of the Menu Page of the Ai Radio App which has all our Menu page

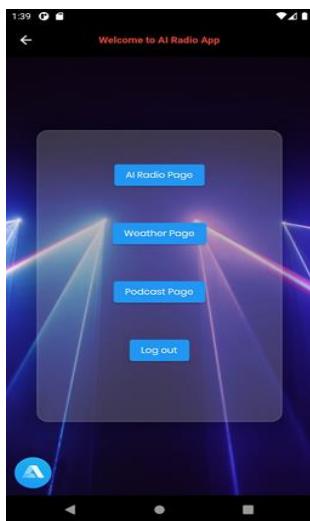


Fig 3. Output Response 2

Figure 4: shows the GUI of the Home Page of the AiRadio App which has all our radio channels and voice assistant Alan



Fig 4. Output Response 3

Figure 5 shows the GUI of the Weather Page of the AI Radio App which shows detailed information about the weather of different cities or countries.

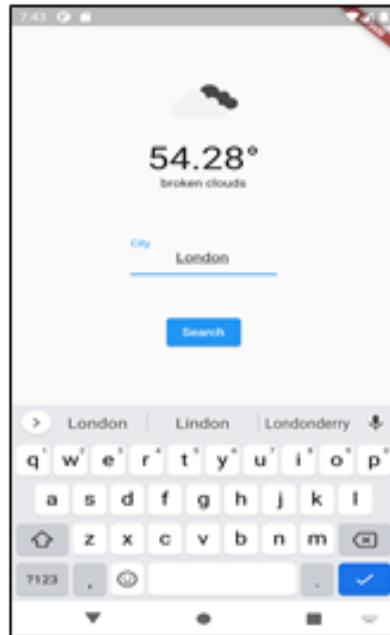


Fig 5. Output Response 5

Figure 6 shows the GUI of the Podcast Home Page and Currently playing podcast of Sundar Pichai

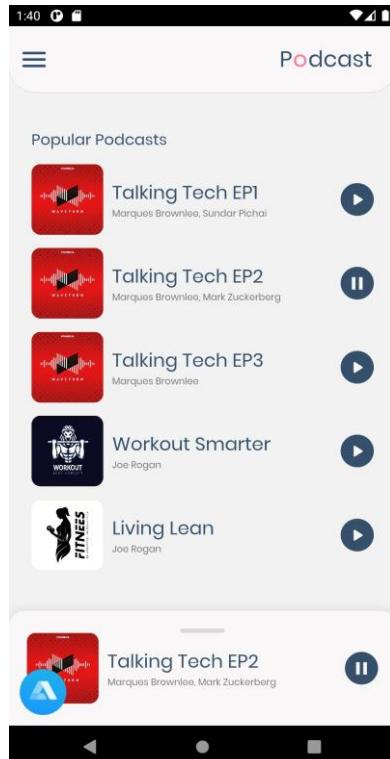


Fig 6. Output Response 5

Figure 7 shows the GUI of the Podcast Page and showing the Owner name of podcast.

**Fig 7. Output Response 6**

Fig 7. Shows the Comparison Between the Proposed System And Existing System In The Form Of Table Comparison.

Parameter	Existing System	Proposed System
AI Assistant	Doesn't have an AI Assistant	Ai Assistant helps us to play the radio of the user's choice.
Channel	Few number channels available(i.e. 3 or 4)	A sufficient number of channels are available
Bandwidth	The bandwidth required is more	The bandwidth required is less than Existing System.
Range (Region)	It applies to a certain area	It is an Internet radio so it can be fetched from any part of the country.
GUI	Low Quality	User friendly
Application deployment	Either built for iOS or Android, not both	Build for both IOS, Android, and also for Chrome
Location	They does not have location service from where the request is coming	We have that service in back hand that collect the location service request

V. CONCLUSION

Kano model attracts a large no of users. Because of the radio streaming app, apps are working fine in various highland and mountains AI and smart radio or any other smart media station which could be any of TV or Radio or even publication are strongly related and will help producer and audience together to have the right content. Listeners that have access to a faster internet connection would possibly want to listen to the station's broadcast at a higher quality if they were given that option. In general we can conclude that there are a lot of disadvantages present in a research paper that we try to overcome and also this research challenged us with new features that we try to add to our project. Our future work will be adding the location service in the front-end part so that the user gets the location radio station in the top.

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AUTHORS PROFILE



Dr. Jitendra Saturwar working as a professor and Head of Department in Computer Engineering at Universal College of Engineering. He received his Bachelor of Engineering (Computer Science and Engineering) from SGBAU Amravati, M.E.(Computer Engineering) from Mumbai University. Ph.D(Computer Engineering) from Sant Gadge Baba Amravati University. He has more than 21 years of teaching experience and is a member of ISTE, CSI, IETE.



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