UI/UX Design

User Interface Design for the Orca Music Player Mobile Application

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ABSTRACT

The rapid development in the field of information technology has resulted in a significant change in the way music is listened to. The current digital generation prefers to listen to music online through their digital devices. Thus, designing User Interface and User Experience on Mobile Music Player Applications using the User Centered Design method which consists of Plan the human centered process, Specify the context of use, Specify user and organizational requirements, and Produce design Solution. The target audience for this design is productive age children 15-35 years old with product limitations that only reach the prototype stage and feature services that are still lacking. The platform used is the android and ios mobile platform and UI design by making Wireframe of the application design.

INTRODUCTION

The use of information technology has now developed in various fields. Wrong the other is the data collection field. Technology can also accommodate work human where someone can manage a system either in the form of an application or website whose aim is to ensure whether the system can work and operate properly effective and efficient [1,2,3].

The large number of smartphone users has an impact on application development mobile. Because of its practical nature, smartphone users can access a variety of things the applications contained in it anywhere. Many types of applications on smartphone, this type of application is used to access various purposes, including communication between people, seeking information or knowledge, for shopping, carrying out business activities and managing finances, utilities and productivity, reading news, playing games and many other types of applications that have been developed incorrectly the other is a mobile music player application [4,5,6].

Music player app is an application that provides possible services people in managing music files and listening to music quickly and easily, with there are quit a lot of music resources provided by the developer. Client or user you can listen to music as you wish with very easy access online or offline. Developments in the field of technology also have an impact on the number music player application developed with new innovations to date [7,8,9].

The rapid development in the filed of information technology has resulted in ways listening to music has undergone significant changes. Today's digital generation is more choose to listen to music online via their digital devices. Suveys carried out by the Indonesian internet service providers association (APJII), shows that 35,5% of the population of internet

users in Indonesia, or approx. 46,9 million Indonesians listen to music online. Following these developments, now many digital platforms provide services streaming music online and offline [10,11,12].

A fairly large percentage of users listen to music online, online raises many pros and cons for users in using the application music player online and offline. The most common problems encountered by one of the users is a user who is required to pay to use it these applications or services for listening to music are available to users incomplete if the user uses the application for free, unlike users who pay to use the application. There are other problems the difficulty of users in operating applications with new features that are not familiar with the user experience and also the design of the application including coloring when designing a music player application that creates discomfort for the user's eyes [13,14,15].

Based on the previous background, this research aims to: implementing user interface and user experience. Therefore deep this study designs the user interface and user experience for the orca music application player is expected to be able to make the design of the music player application better than in terms of user interface design and user experience that suits potential users in the future. In the design process, the user interface is very important to pay attention to all kinds of things what users need in systems and applications must also be made well perhaps so that when used, users no longer experience difficulties [16,17,18].

METHOD

UCD it self is a design method that places the user as the center of the system design process. Basic principles of UCD are user involvement, empirical measurement and testing, and iterative design. On this research is expected to produce an easy user experience design used and provide new experiences to users with the user centered method design (UCD) [19,20,2,22].

This project uses the User Centered Design or UCD method which has several stages as follows:
1. Plan the human centered process
   The first stage in this research is a discussion with the people involved in this project. As well as conducting literature studies on research and journals related to this project.
2. Specify the context of use
   The second stage is identifying the people who will become users application. To obtain information we use the observation method
3. Specify user and organizational requirements
   The third stage is identifying functional requirements that match your wishes user.
4. Produce design solutions

User Centered Design Method

In the process of designing the music player application, the approach method was used user centered design (UCD) where this method has 3 stages, namely [23,24,25,26] :
1. Inspiration
   This stage helps to find out what problems will be faced and what obstacles will appear. This process is important to use to get the best solution from application designers and users. After analyzing several applications populer music players such as spotify. Apple music, and youtube music, some problems main frequently encountered by indentified users, which can serve as inspiration for orca music player application development. One of the main problems is ad interference which often appears in the free version of the application. Users feel annoyed with ads repeatedly appearing and interrupting the music listening experience they. Apart from that, the limit on the number of song skips per hour on the free version is also a complaint which is often conveyed by users, especially on spotify.
   Another problem found was the user interface (UI) which was less intutive, especially in apps like apple music and youtube music. Users find it difficult to navigate the app and find the features they need. UI design complicated and less user-friendly can cause frustration and reduce satisfaction user. Additionally although apple music offers high audio quality its best experience can only be enjoyed on apple devices, which limit access users on other platforms such as android [27,28,29,30].

2. Ideation

After carrying out the process of collecting ideas and suggestions at the inspiration stage then the next process is processing the data into the best solution and designing it prototype. The following is an overview of the system design created with figma [31,32,33,34].

Figure 1. Orca Music Player Application Prototype

Figure 1 shows the login page, signup page and main page or dashboard, playlist page, browsing page and music player page ini the application orca music player which contains information regarding creating an account or logging in to an account then contains information regarding song or music lists [35,36,37,38,39,40].

User Personas

User persona is a description of potential application users in the future. Personas contains profiles of potential users which are used as the basis for the display design or prototype so that the display meets user needs and is easy to use [41,42,43,44,45].

Figure 2. User Personas

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RESULTS AND DISCUSSION

The results that have been carried out at the user interface testing stage use the human centered design approach produces system design results that are has been adapted to user needs. Wireframe design is a framework basic in a design that serves to connect a concept into mobile application display form. Wireframe design is a process continuation of user flow, which is implemented with layout starting from images, text and how the user will move from scenario to next scenario. Process wire frame design functions as a visual scheme that can convey levels basic communication, structure and behavior during the design of UI and UX.

User Persona Test Results

The three user persona were chosen from the participants because they are a representation of potential users in the future and in accordance with the target users that have been set previously and user testing was carried out on the completed music player application designed so that the application can be accepted and used by users. From interviews with participants who have carried out user persona and user testing as follows :

Table 1. Priority Scale

Scale	Priority
1	Tall
2	Currently
3	Low

Design Implementation

Start Page Wireframe
The function of the home page is for user entry into applications and pages. This initial impression also gives the user an impression of beauty or attractiveness to the application. There is a get started button that users can use to enter the sign up frame or log in.
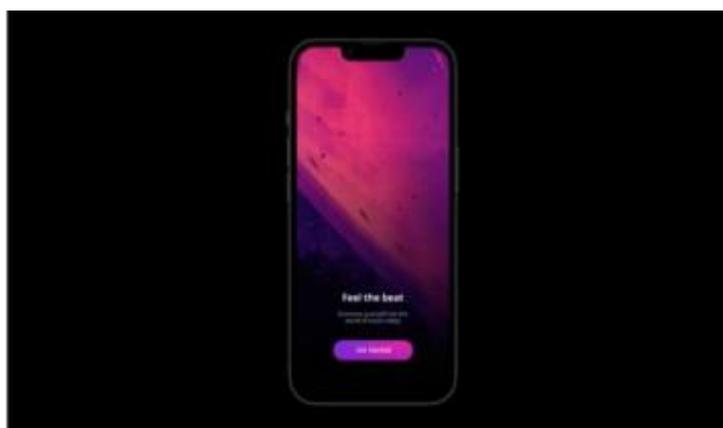

Figure 3. Home Page Wire Frame

Signup Page Wireframe
There are three input buttons for entering name, email, and password user. Then there is information to the user regarding the internal rules creating user account passwords. Then there is also information about commands log in if the user already has a previous account. Lastly there are two create an account button when the user has finished inputting data and users can create an account via a google account by pressing the sign up button with google.
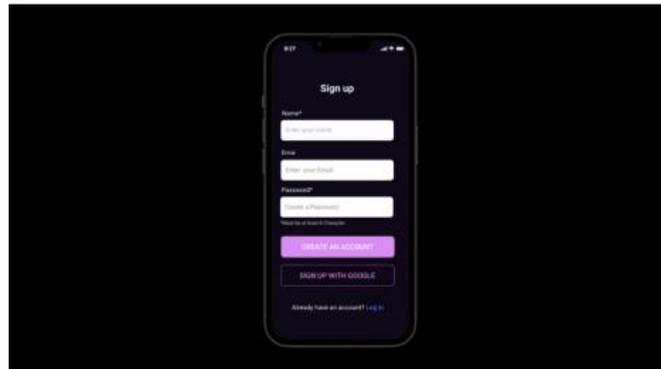
Figure 4. Signup Wire Frame

There are two input buttons for entering the user account name and password who have registered, then there is also an information button that can be used user if the user forgets the password for the account. Lastly there is a button to return to the sign up frame if the user does not yet have an account.
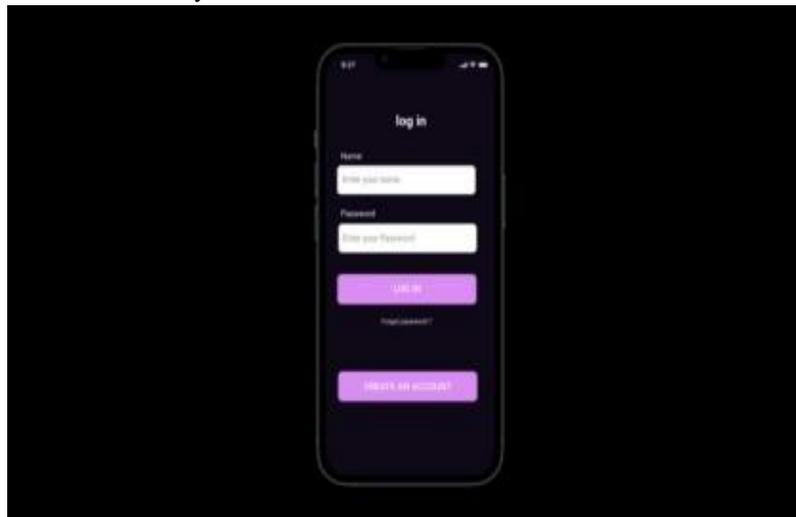

Figure 5. Login Page Wireframe

Home Page Wireframe

The function of the main page, content page or home page is the front of this aictentic application is due to the first appearance of the application. There are several items from on the main page, there is also a search button to search for songs, playlists and artists information about what a user can type in the search button that creates a user don't be confused about what the user can input. Then there is also the frame groups containing recent, top 50, chill, etc. Which can be scrolled by the user horizontally where the user can select the desired category and there are also details. The user can select categories from each category and the details of these categories can be obtained scroll horizontally too. Then there are also recommended songs form each category which is recommended for users.

Especially for the recent category, there is content that contains the latest interations or the interaction that the user has just made to the application and there is also music / songs which is the user's favorite. Finally, there is an account profile button that can be accessed user access to manage their account. With this scrolling feature you can makes it easler for users to interact with applications where it is not difficult for users rotate the hand or finger to each button on the mobile device frame when using the scrolling feature.
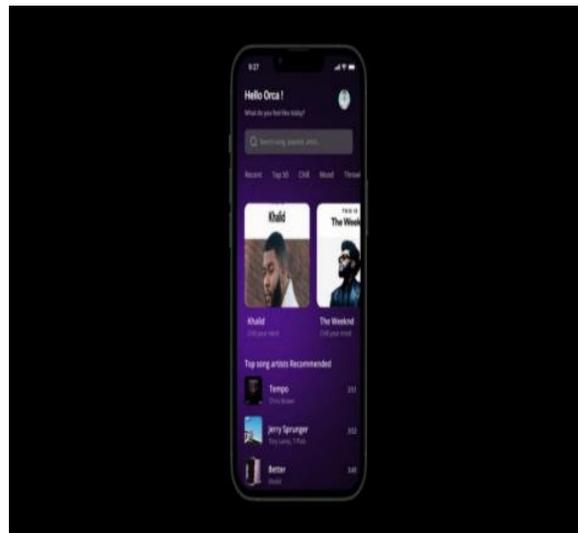
Figure 6. Main Page

Music Player Page Wireframe

On the music player page the user can play music / songs by pressing the play or resume icon button, there are also next and previous icon buttons functions to play or switch to the next or previous music. Then there is also a shuffle icon button which is used to play music randomly or with mixed and irregular music playlists, there are also those loopicon button which functions to repeat songs, then there is also an icon button heart if the user wants to favorite the song being played. There are also information about the length of the music and the duration when the music runs, then there is three-dot icon button which functions to view details of the music. And that finally, there is a left arrow icon button if the user wants to return wants to return to the playlist page.
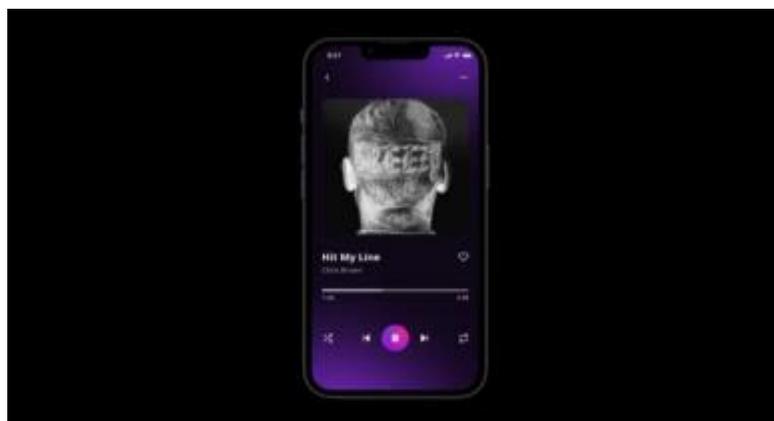

Figure 7. Wireframe of the Music Player Page

CONCLUSION

User interface design in the ora music player mobile application highlights the importance of user interface (UI) design and user experience (UX) in creating intuitive and fun music apps. This research uses systematic user centered design (UCD) method to ensure that users is at the center of every step in the design process. UCD method applied consists of four main stages : planning human-centered processes, determine the context of use, identify the user's functional needs and organization, as well as producing design solutions. The target users of this application are individuals aged between 15 and 35 years who actively use mobile devices and are connected to social media such as instagram, tiktok and twitter. Inspiration for the development of this application was taken from analysis of popular music apps such as spotify, apple

music, and youtube music. This analysis identifies the main problems that users often face, such as ad interruptions, song skip limits, and a less intuitive interface.

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