APPLICATION FOR LIVE MUSIC PERFORMANCE (MYKONSER)

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ABSTRACT

Nowadays, some events such as live music or concert and music festival are one of the activities that people interested in especially young people like millennials and gen z. They can spend their money just want to watch their favorite band or singer regularly. However, it is quite hard to find the concert event because people should find by themselves. Sometimes, the information of that event usually informed in the social media that might be many people do not know how to find it and with multiple sources that confusing. Furthermore, unofficial channels and the ticket platforms also one of the problems related the concert events. The most effective solution is to develop an application specifically mobile application about providing that kind of information and the features that helpful for the user related to the concert events. For this project the methodology that will use is waterfall methodology. Therefore, the expected result of this project is an application that can be useful for many people to discover the information of concert events so that they can easily to stay following their entertainment.

INTRODUCTION

Entertainment and human are something that inseparable. Concert and music are one of the most famous entertainments especially for young adults. There are many good artist and band in the world that have many fans. They usually travel around the city in the world. Many fans are excited awaiting the arrival of their favorite artist to perform in their city. Live performance like concert gives experience that people enjoy it. People spend their money for watching their favorite artist, singer, or band. Because of that, sometimes is very hard to obtain the information and ticket. Application to find information about entertainment like concert and music that provide some features can be useful for many people. Because currently there is still hard to find information about concert and music. They usually put the information in the social media that sometimes many people do not know about it so that they missed the event due to lack of information. That's way we need an application that can provide all of information related to concert and music event. Besides, people also can create or add their own event to the

application so that others who interested with that event can get the information and come to watch it.

Nowadays, people are constantly seeking meaningful experiences especially Millennials and Gen Z are hungry for genuine connections and real-life moments. According to a recent study by (Eventbrite), nine out of ten individuals aged 18-34 had attended at least one live event in the past year, a significant increase from 82 percent just three years prior. By 2023, Greenlight Insights predicts that location-based experiences will be worth $12 billion. Hence, applications for getting the information about live music events are very helpful for many people.

RESEARCH METHODOLOGY

Waterfall software development methodology is the methodology that will be used in this project. The reasons using waterfall methodology are because requirements are very well documented, clear, and fixed. It is also easy to arrange tasks. Simple and easy to use and understand.

Analysis Phase
This phase gives weight to the analysis of system requirements. In this phase, functional and non-functional requirements are determined from the project stakeholders. This phase is also conducted to ensure that the developed game achieves the set objectives. Literature highlighting is also done on existing application to gain understanding that can help in the development of this application.

Design Phase
The design stage is the stage that determines the system architecture used. At this stage, architecture, database, algorithm and interface designs have been produced to facilitate the development process and ensure the research objectives can be achieved.

Implementation Phase
This phase is the longest as it involves all the heavy lifting like programming and so on. In this phase, all the requirements gathered in the analysis phase are developed and worked out. These requirements will be combined into a big application. It is also through this phase that the weaknesses of the application can be determined after successful implementation.

Testing Phase
The testing phase is one of the most important phases in the development of an application. This is because testing is done to find defects, errors and weaknesses in this application. When errors can be identified, improvements and corrections can be made to ensure smooth application and ensure the best experience for the user.

Usability Testing was conducted by using questionnaire form that user submitted after trying the application. The questionnaire for the user consists of 5 parts which are Part A, Part B, Part C, Part D, and Part D. Part A covers the respondents demographic. For the Part B is the application efficiency that discuss the ease of function and features that available at the application. Part C is more about the interface satisfaction. Part D is the usability part that

asked the user how useful the application. Furthermore, performance also concerned to test at Part E. Table 4.13 show the questions asked in the usability testing form.

Usability Testing was collected by 5 users thorough the questionnaire form. Thera are 12 objectives that users need to achieve during the testing. The value or feedback provides 5 options which are strongly disagree, disagree, neutral, agree, and strongly agree and their score is from 1 to 5. The score given by each respondent is recorded and used for analysis.

RESULTS AND DISCUSSION

Application for live music performance has been successfully developed and all documentation has been finalised. In the development process, this application was developed using android studio with its programming language called java. The database used is the Firebase Realtime Database to ensure the application can be continued and stored on every phone.

When the user enters the application, it will open and directly displaying the 'Sign Up'. It will go to sign up screen like Figure 1, which the user create account in order to use the application. User should fill in the information that has been given that will be used for the application. After everything is completed, user can click "Sign Up" button.
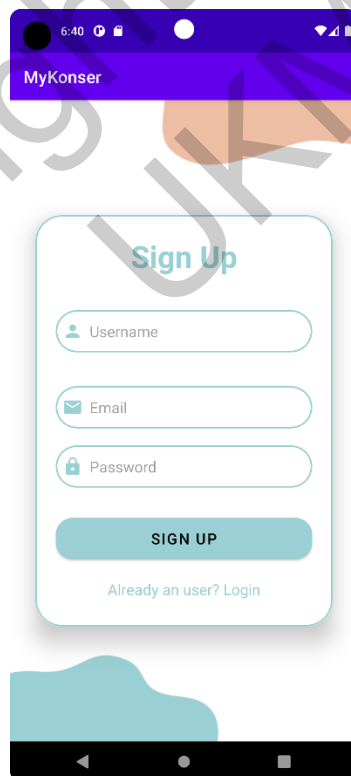

Figure 1 Sign Up Interface

After players register an account, they will be shown the login screen again. The login screen interface is as shown in Figure 2, where the player can use his account email and password to log into the application.
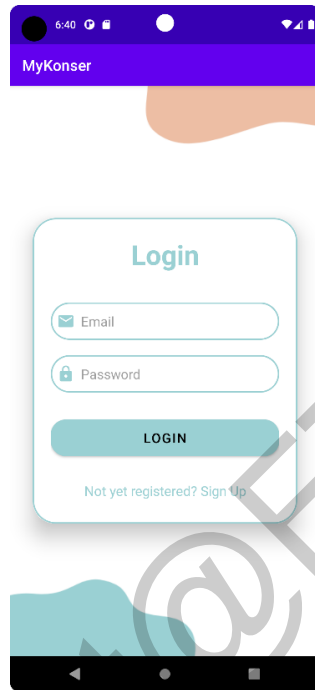

Figure 2 Log In Interface

Profile page will display the profile information of the user when user is successfully log into the application. The user can edit and save the profile information related such as gender, region, and preferences as shown in figure 3.
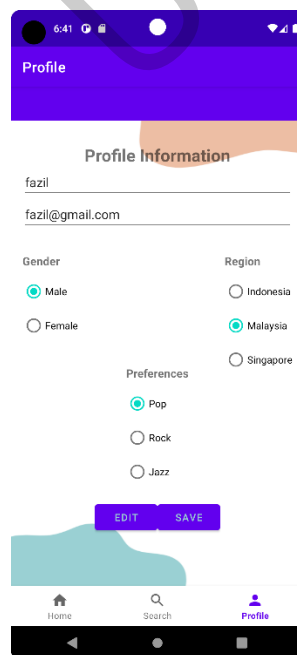

Figure 3 Profile Page Interface

Figure 4 shows the home page especially the content of "Concert". It displays all of the concert that has been stored at the application. it also provides some information such as concert name, artist, location, and date.

Figure 4 Concert Page Interface

Next home page shows the list of "Artist". It can be seen the artist that usually do the concert regularly. It displays artist name and also the picture like figure 5.
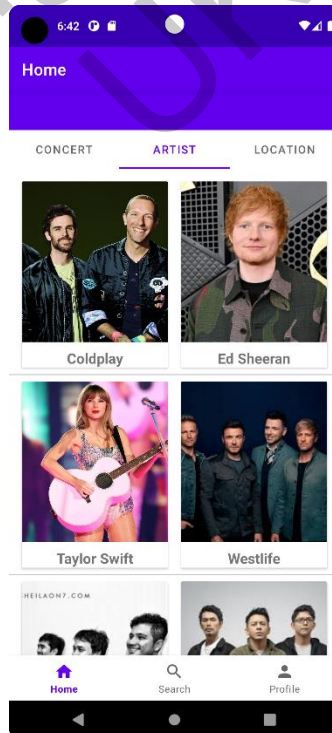

Figure 5 Artist Page Interface

Other home page displays especially the list of "Location". It can be seen the location that usually as a place of the concert regularly. It contains location name and also the picture. Figure 6 shows the interface of location page.
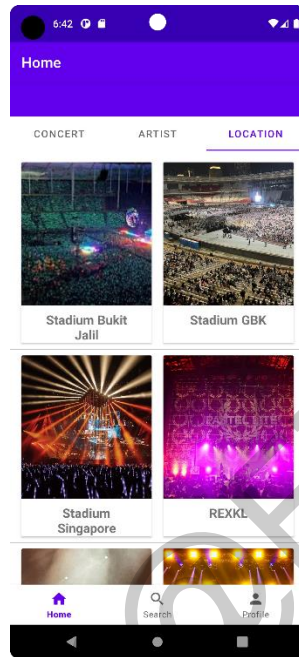

Figure 6 Location Page Interface

For each the concert content it always provides the detail of concert like figure 7. It shows the information related such as concert name, picture, date, and location, and description of concert. Furthermore, the user can share the concert information and give review about the concert performance at this page.
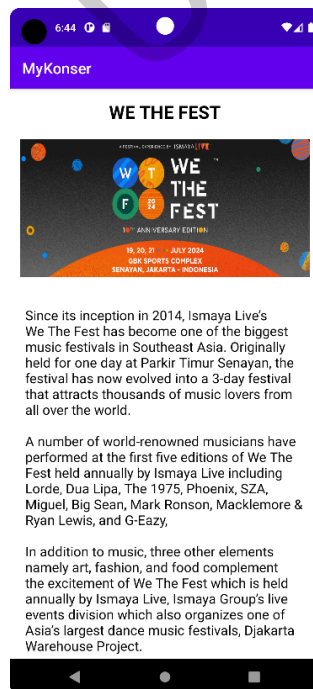
Figure 7 Concert Detail Interface

Next detail page from artist page shows the information related such as name of artist picture, name of artist, and description about the artist. Figure 8 shows the interface of detail artist.

Figure 8. Artist Detail Interface

Furthermore figure 9, the location detail displays the information related such as picture, name of location, and description of location.

Figure 9 Location Detail Interface

The application also have search and sort function that useful for the user to find the concert that they want to view. Figure 10 shows those features at the application.

Figure 10 Search and Sort Interface

In addition, there is a feature that users can add or upload their own concert to the application like figure 11 so that it can be viewed by other users. Users should fill in some information related to the concert event such as image, title, artist, location, date, description, and ticket link.
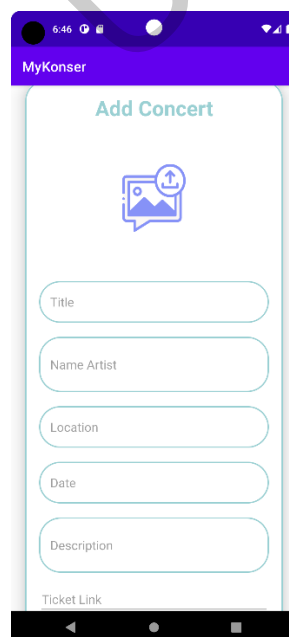

Figure 11 Add Concert Interface

Usability Testing

Usability testing is also carried out. The purpose of usability testing, according to developers, is to get user input regarding an application's usability and user happiness. Through testing, it will be possible to verify that the application meets the needs and expectations of the users. As a result, user feedback is valuable and is taken into consideration when customizing and enhancing the program.

Table 1 shows the average score received from the efficiency of the application. Items 3, 6, 7, 11, 17, and 19 were the highest with an average score of 4.8, while item 12 was the lowest with an average score of 4.2. However, the overall average was 4.51.

Table 1 Application Efficiency Score

No	Item	Average
1	I can register account easily.	4.6
2	I can log in to the application easily.	4.4
3	I can complete the profile information easily	4.8
4	I can pick additional profile information (gender, region, preferences)	4.4
5	I can edit the profile information easily	4.4
6	The information displayed at home page is easy to understand.	4.8
7	I can see the list of concerts easily.	4.8
8	I can see the list of artists easily.	4.6
9	I can see the list of location easily.	4.6
10	This page is useful for the information that I need	4.6
11	I can use search to find concert easily.	4.8
12	The result of concert searching is accurate.	4.2
13	I can use sort the concert easily.	4.4
14	I can choose the concert easily.	4.6
15	I can choose and see the detail of concert information easily.	4.6
16	I can share the concert easily.	4.6
17	I can review the concert easily.	4.8
18	I can see the review easily	4.6
19	I can add concert to the application easily.	4.8
	Overall Average	4.51

The average score obtained for the application's interface satisfaction is displayed in Table 2. With an average score of 4.8, item 5 had the highest rating, while item 3 had the lowest, at 4.4. But the average across the board was 4.6.

Table 2 Application Interface Satisfaction Score

No	Item	Average
1	Interface of application is attractive.	4.6
2	Button placement and navigation element is good.	4.6
3	Font and size are appropriate.	4.4
4	Color selection is appropriate.	4.6
5	Language used is easy to understand.	4.8
	Overall Average	4.6

The average score for the application's usability is displayed in Table 3. With an average score of 4.8, items 1 and 4 had the greatest scores, while item 3 had the lowest average score of 4.4. But the average for the whole group was 4.65.

Table 3 Application Usability Score

No	Item	Average
1	I found this application easy to use.	4.8
2	I think I will use this app frequently.	4.6
3	I think I need this app.	4.4
4	I think the app features is useful.	4.8
	Overall Average	4.65

Table 4 shows the application's average performance score. With an average score of 4.8, items 1 and 4 had the greatest scores, while item 3 had the lowest average score of 4.4. However the overall average was 4.65.

Table 4 Application Performance Score

No	Item	Average
1	The application loads quickly (loading time).	4.8
2	Application response fast.	4.6
3	Application movement smoothly.	4.4
4	Application performance consistency.	4.8
	Overall Average	4.65

Based on the respondents' answers and the analysis conducted, it can be concluded that the usability of this application is on a positive scale.

Suggestion Improvements

The application should be improved for the future. Some suggestions that can be implemented have interactive design, connect to the artist, AI implementation, and if possible have virtual reality of concert performances.

The design of the application can be better so that the users feel good experience during using the application. One of the features that interested if available is connect and interact with the artist live. The fans or users have opportunities to communicate with their favorite artists and also other fans. Furthermore, AI or Artificial Intelligence can be implemented. For example, the application will display the recommendation of concert by learning the user behavior. Lastly, one of the technologies that currently popular is virtual reality (VR). If the application provides that features, the user can feel the concert performances like a live performance by using the application.

CONCLUSION

Overall, the project of mobile application for live music performance (MyKonser) was successfully developed including the advantages and disadvantages of the MyKonser application. Several suggestions for future improvements have also been given so that this system continues to run along with technological, social, and user needs in the future. Hopefully, this project can be helpful in the society, especially among university students who are fans of concert event.

SYSTEM ADVANTAGES

Some of the application strengths for application live music performance are the application have information that users need for their daily life. The content of application also helpful and useful for the users to find the information related with concert. This application uses signup and login to authenticate the users, then the user profile information is displayed at profile information page. One of the features or function that useful is add concert. This feature provides user to upload or add their own concert so that their events can be promoted to other users.

SYSTEM WEAKNESSES

However, this application has weaknesses and limitations. The application does not serve ticket platform itself. It just provides ticket information link at concert detail information. Because of that, the user should go to other ticket platforms to buy tickets. The interface design should be more interactive and complete content information. It needs more time to design the interface so that the application looks beautifully. In addition, the concert databases are limited because the challenges of finding the sources which are available.

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