MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE ,GWALIOR(M.P)

(A govt. aided UGC autonomous &NAAC accredited Institution under RGPV, Bhopal)

Project report on "meditation app"

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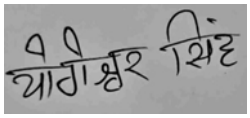
CERTIFICATE

This is to certify that Astitva Jain(0901IT191015) and Divyanshu Gupta(0901IT191023) minor project, " meditation app " is a genuine record of a project completed under our supervision and guidance in partial fulfilment of the requirements for the award of a Bachelor of Technology in Information Technology in the Department of Information Technology, Madhav Institute of Technology and Science, Gwalior.

(Prof.Vikas Sejwar)

Mentor



(Prof. YOGESHWAR SINGH)

Mentor

ABSTRACT

Mental illnesses affect 19% of the adult population,46% of the teenagers and 13% of the children each year. In covid times,this number is increasing significantly. At initial stages people finds it difficult to consult a professional due to stigma associated with this disorder. This proposed work has compiled healing music videos related to every aspect of the mental health at a single place. This effort reduces the labor of searching for users and provides a one stop solution.

CHAPTER-1. INTRODUCTION

This app has all the videos required for initial treatment of mental health issues and can prove to be a boon for people having related disorders . We have selected the authentic music videos from various platforms and presented them in a user friendly manner with attracting infographics .

1.1 project aims and objectives

The purpose of the whole project is to provide healing music video to users and to reduce their effort of searching by organizing them into categories.

CHAPTER 2. REQUIREMENT ANALYSIS AND SYSTEM SPCIFICATIONS

2.1 Functional requirement-

Functional requirements are properties that must exist in the final system. For any mobile application we need to download the application from play store. The application could be either free or paid depending upon the store or merchant. After installing the user can simply click on the app tab and can use all the features.

2.2 performance requirements-

Response time,scalability , platform dependencie, tolerance are the performance requirements that should be considered when developing any system. Application should be developed in such a way that is should be scalable enough to accept new features when we want to expand the application complexity . the tolerance rate

of the application should be at a higher level in case of the network issues, connectivity issues and when the application crashes or stops.

2.3 system requirements-

The application should be installed into a device system or any machine in such a way that it should have basic requirements like supporting software and hardware of the deivce ,assessing inbuilt software ,say camera for mobile device,internet permissions,potential security issues such as virus or any malware detection.

2.4 testing and maintainability requirements-

The application should be able to meet all possible good and bad cases under a test environment . it should be able to extend itself when we expand the code.

CHAPTER 3. SYSTEM DESIGN

3.1 design approach-

The project is based on the functional design approach which helps in understanding the design of the project in a simpler way.

3.2 detailed design-

Firstly the user has to download the application from the playstore and then install it. The app can be launcher by clicking its icon . the user can click on the category of the videos like reduce stress,personal growth etc. then user will be redirected to the page containing videos of that category and then the user can watch the desired content.

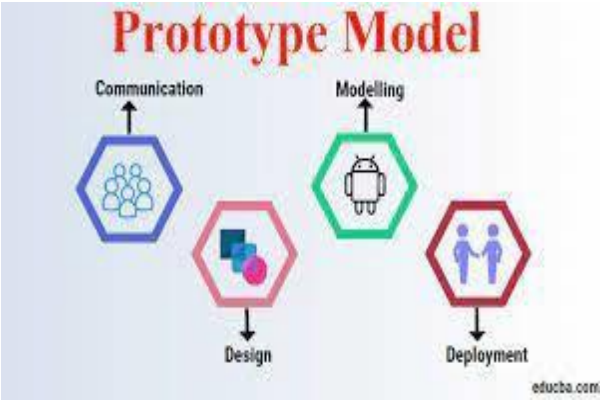
3.3 user interface design-

User interface design for any application should be very simple . we should have only a few clicks or navigation

among the features to avoid hassle. In this application there are three main screens , the category ,the list and the player screen.

3.4 methodology-

we used prototyping model , a systems development method in which a prototype is built, tested and then reworked as necessary until an accepted outcome is achieved from which the complete system or product can be developed.



CHAPTER 4. IMPLEMENTATION ,TESTING AND MAINTAINANCE

4.1 Intoduction to programming languages, IDE, tools and technologies for this implementation

4.1.1 DART

Dart is a programming language designed for client development such as for the web and mobile apps. It is developed by google and can also be used to build server and desktop application . dart is an object oriented , garbage collected language with c style syntax. Dart can compile to wither native code or java script. It support interfaces ,mixins , abstract clases,reified generics and type interface.

4.1.2 IDE's, tools and technologies

4.1.2.1 flutter

Flutter is an open source ui software development kit created by google . it is used to develop cross platform application for android ,ios ,linux,mac,windows,google fuchsia and the web from a single codebase. First described in 2015, flutter was released in may 2017.

4.1.2.2 VS code

visual studio code is a source code editor made by Microsoft for windows ,linux and macos. Features include support for debugging , syntax highlighting ,intelligent, intelligent code completion, snippets, code reinforcing and embedded git. User can change the theme , keyboard shortcuts, preferences and install extensions that add additional functionality.

4.1.2.3 android software development kit(sdk):

One of the main tools used in developing android applications as it pacages many core features into one sdk and it can be used in the application easily.

4.1.2.4 android debug bridge(ADB)

Android sdk uses adb tool as a connection device which allows us to connect android devices or emulator with the machine via usb. After developing or while developing applications ,we can connect with the device to check how the application works.

4.1.2.5 SDK manager

It is one of the main tools to maintain the updates of all the installed components required to run the project

4.1.2.6 AVD manager

it is used to create virtual devices for any desired API level to support higher sdk's incase our device does not support.

4.1.2.7 some packages

- Cupertino_icons:1.0.2
- Flutter_staggered_grid_view:0.4.1
- Youtube_player_flutter :8.0.0
- Flutter_native_splash:1.3.1

4.2 Permissions in android

Permissions are another important concept which is included in AndroidManifest.XML configuration file. This is required if the application wants to access the external features. For ex, if the application wants to access the Internet, Camera or it could be any feature, it requires permissions. It is included within the tags as it is an XML file. Permissions are automatically created for the basic applications at the time when we create the application. If the app uses higher level API or SDK we must explicitly mention the permissions inside uses-permissions tag to access the features or components.

4.3 Test plan and test activities

Test plan is necessary for any project to plan the testing phase and decide the scope of the project. Test plan involves collecting design specifications about the project, wiring test cases, executing them manually or automatically using automated testing tools.

Test Activities for this project includes various testing like:

- Black Box testing: In this project, sample test cases are written and manual testing is done to check the functionality of the application.
- White Box testing: Once the application meets the user requirements and functionalities according to the test cases, its internal logic are completely tested to ensure that the application does not have any logical errors or issues.
- Unit Testing: I have tested all the modules of the application individually by running as a test program.
- Integration testing: After testing the modules individually, tested them by integrating all the sub modules, modules into one application.

- Usability Testing: Finally, usability testing is performed by testing the application's flow, UI design and how flexible and easy the application is easy to use.

5. RESULTS-

Fig. representing welcome screen

Fig . showing categories

Fig. list 1

Fig. list 2

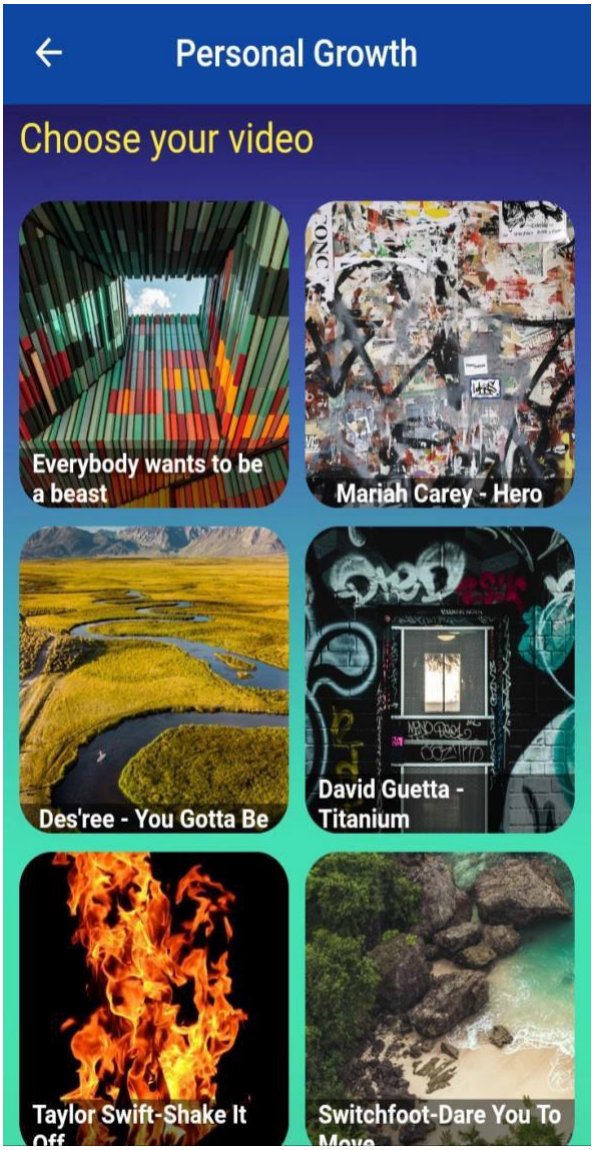


Fig. list 3

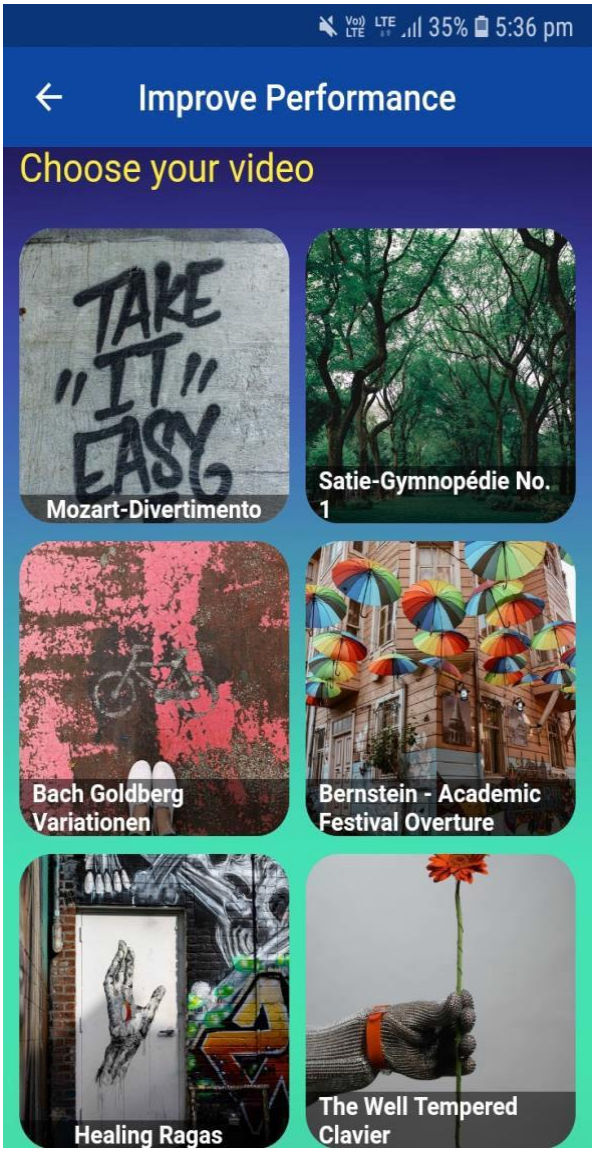


fig. list 4

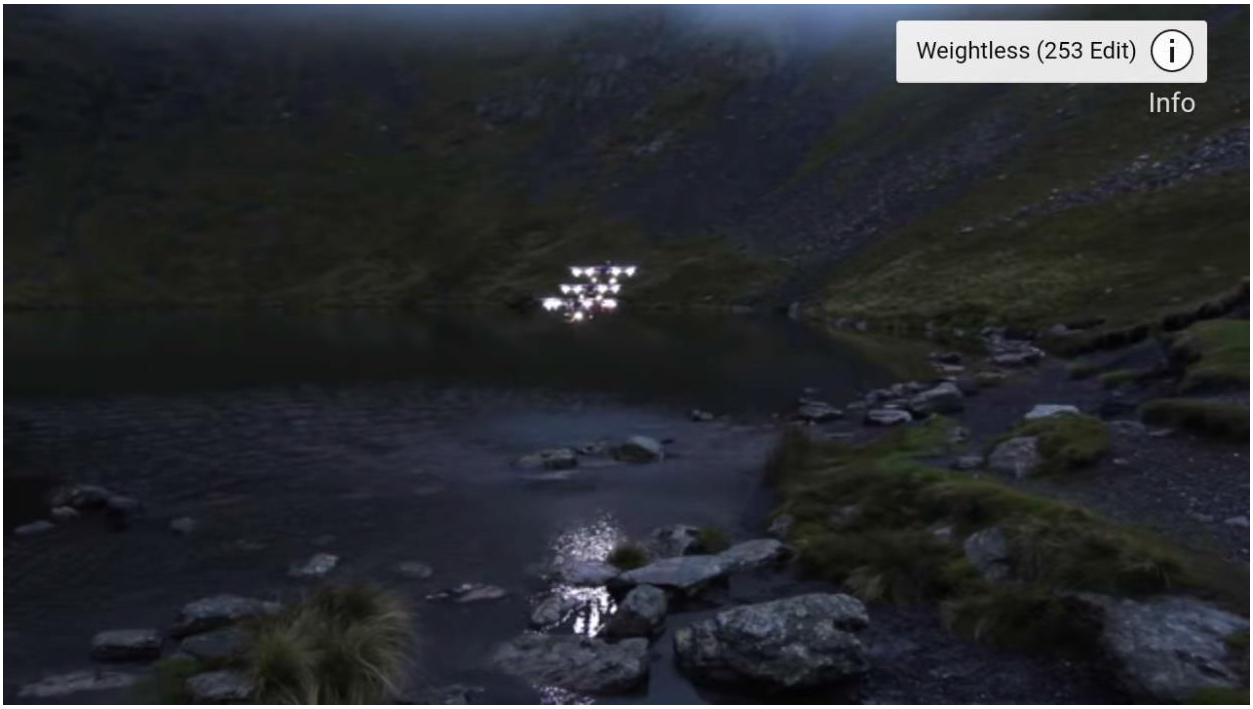


Fig: player full screen mode

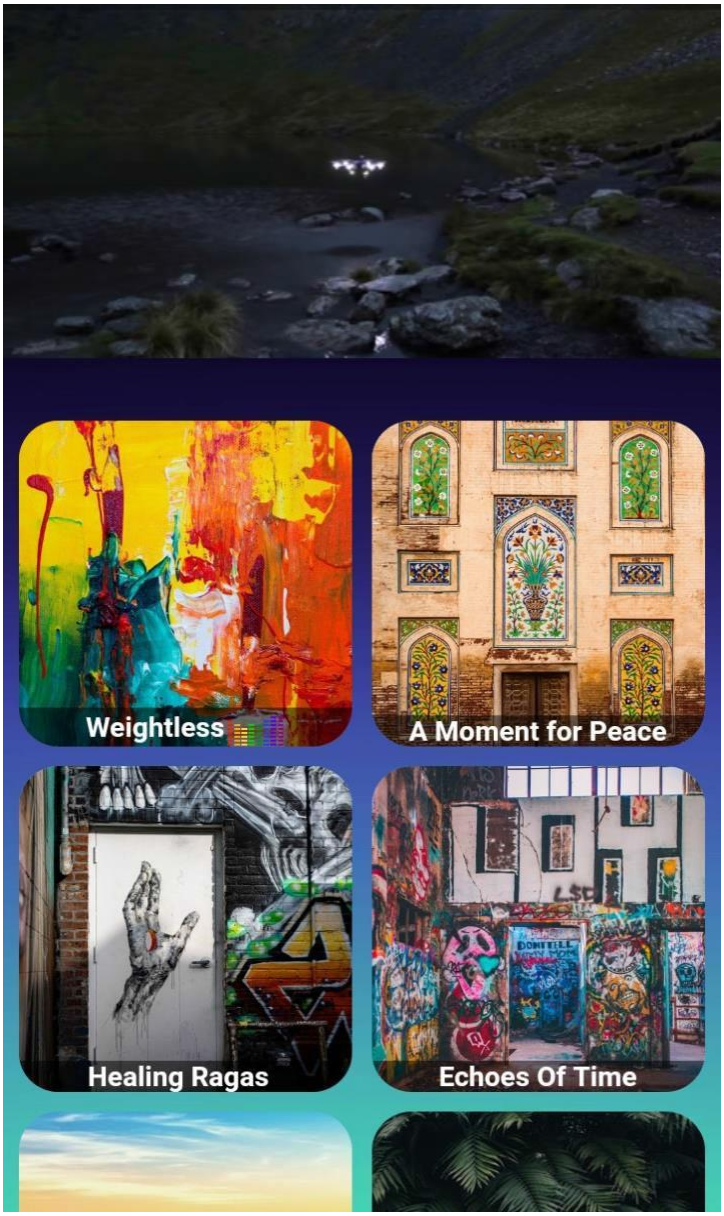


Fig. player screen

CHAPTER 6 CONCLUSION

we have learned a lot from this project on how to develop Android Application and publishing it in real time. We also used different packages and technologies.In upcoming times, we would like to add some other features to this application like user registration ,searching ,ratings etc. This project taught the real world application of programming concepts