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World of Quotes

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ABSTRACT

Present day hand held gadgets, for example, advanced mobile phones and tablets are multiplying in business sector which are having additional elements incorporated into these gadgets have opened ways to an extensive variety of potential outcomes. Specifically, most mobile phones routinely incorporate cameras, preparing similar to PCs from just a couple of years back, and web access. Nonetheless, even with these additional capacities, there ought to be couple of uses that ought to permit a client to make as he wish like setting his own experience pictures that we have in our PC furthermore with a few elements such as sharing those photos in online networking.

As cell phones turn out to be more like PCs where they can supplant each component in advanced cells. This present android (and iOS) application is utilized to customize foundation picture with some great elements which are accessible in our PCs.

In this application a client can transfer photographs into various classifications furthermore can be erased at whatever point he/she needs to do as such. At the same he/she can transfer a few citations, for example, motivational, support and numerous more into various classifications where one can link one picture and a citation or diverse pictures with the same citations like the connections we are having as balanced and numerous to numerous and so on. The photographs that are incorporated can be spared and utilized at whatever point a client needs to set it as foundation picture. The photographs utilized as foundation picture can be customized as altered or haphazardly by rearranging. This application likewise has an element that the coordinated photographs can be partaken in online networking.
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1. Project Description

As we mentioned in our abstract earlier our main goal is to provide users a user friendly environment by using our application.

World of quotes is an Android based mobile application which allows user to set the home screen and lock screen as their own interests. These application provides users to select pictures and quotes and they can also update their own quotes to their selected pictures and pictures to their quotes. Pictures and quotes are interchangeable.

The objective of this application is to develop a reliable application that world of quotes should be user friendly where user should feel genuine while going through the application.

1.1. Competitive Information

The objective of this application is to develop a reliable application that world of quotes should be user friendly. Where user should feel genuine while going through the application. The service provided by these application is reliable where users should be feel genuine while going through the application.

Over application has specially designed that the user can change their own quotes and background images to their interests.

They can update and delete any pictures and quotes at any time. Our application has also time interval so that the images can be automatically updated at particular time interval.

1.2. Relationships to Other Applications

As we know that there are many mobile applications are available in the market we are familiar with many applications as we uses in our day to day life. But the features and quality varies from application to application.

The world of quotes is a genuine application developed in user perspective. Where user should willing to download the application by knowing the quality and features of the application where we have to build a strong bond between the application and the user.
The existing system will enhance the users to set their own pictures and quotes. All they have in our application where users can search their own quotes by famous personalities and many images or background upon their own interests. This all process goes only on web-based. The users can view like how many images and quotes are available in the application. If the applicant selected an image and user want to change the quotes then they have to use the update function in order to change the quotes to a desired image.

1.3. Assumptions and Dependencies
The proposed framework sorts out the information successfully. The World of quotes for enhancing application Quality and Reliability is a web-based application which will available throughout the world. It can be valuable application that can be taken as reference for everyday life. Enhanced execution and User Experience. Full access to functionalities of fundamental portable OS and gadget particular capacities.

1.4. Future Enhancements
In initial stage we have to deliver the application to the applicants without any drawbacks. So that we can proceed to further stage where we can add more features to the application. The update and delete can be made on the user's feedback which will help our application development more reliable.

1.5. Definitions and Acronyms
Acronym items should be included here. For each special term supply a definition here.

JDK-JAVA DEVELOPMENT KIT

ADT-ANDROID DEVELOPMENT TOOL

SDK – SOFTWARE DEVELOPMENT KIT

XML – EXTENSIBLE MARKUP LANGUAGE
2. Project Technical Description.

World of quotes is an android based application. Android application have more demand in the present market. Android application is an open hotspot for cell phones. World of quotes is developed in java language by implementing Android software development kit (ADT). The initial stage of designing the application is to begin from environment setup for Android application programming and after that bore down to investigate different viewpoints of Android features.

Our android application has many features such as:
- User Interface (UI).
- Wi-Fi Connectivity.
- Media Support.
- Storage Area.
- Multi- Tasking.

**User Interface (UI) -** Android OS essential screen gives an excellent and instinctive client interface.

**Wi-Fi Connectivity-** To run application internet is mandatory in order to it application will be used internet connection it might be Wi-Fi, Bluetooth or any other connections.

**Media Support –** in our application we use many pictures/images which should support like any format of images like JPEG, PNG, GIF and many other formats.

**Storage Area -** The application must have some storage area where the images and other data will be stored for future use.

**Multi-tasking –** These feature is very important to our application because we have to run two functions at a time frequently.
3. Requirements Analysis

The task included breaking down the configuration of couple of utilizations in order to make the application more easy to use. To do as such, it was truly critical to keep the routes from one screen to the next all around requested and in the meantime decreasing the measure of writing the client needs to do. So as to make the application more available, the android adaptation must be picked so it is perfect with a large portion of the Android gadgets. Subsequently Android 4.0 Ice-cream sandwich variant was picked.

3.1. Requirements Specifications

3.1.1. Functional Requirements

<table>
<thead>
<tr>
<th>Requirement ID</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>WQ-001</td>
<td>Home Screen must have editable profile page</td>
<td>It should consist of user profile picture and name.</td>
</tr>
<tr>
<td>WQ-002</td>
<td>Category page should have five different.</td>
<td>Each category should have at least 10 photos which are editable.</td>
</tr>
<tr>
<td>WQ-003</td>
<td>Category Icons</td>
<td>Each category must have different icons to differentiate</td>
</tr>
<tr>
<td>WQ-004</td>
<td>Upload a photo</td>
<td>Each category should be able to add more photos by using camera or from choosing it from gallery.</td>
</tr>
<tr>
<td>WQ-005</td>
<td>Sharable</td>
<td>Each photo from every category should be able to share in social media</td>
</tr>
<tr>
<td>WQ-006</td>
<td>Set as Background</td>
<td>Single photo can be set as background with a quote.</td>
</tr>
<tr>
<td>WQ-007</td>
<td>Quotes</td>
<td>There should at least five types of quotations</td>
</tr>
<tr>
<td>WQ-008</td>
<td>Editable quotations</td>
<td>Each quotation can be deleted and can be added to any quotation category.</td>
</tr>
<tr>
<td>WQ-009</td>
<td>Quotes Icon</td>
<td>Each quotation should have unique icon.</td>
</tr>
<tr>
<td>WQ-010</td>
<td>Settings</td>
<td>In this page user can be able choose any number of pictures and also any number</td>
</tr>
</tbody>
</table>
3.1.2 Software Requirements:

- Install Java JDK 7 and set path as
  \texttt{JAVA\_HOME}="jdk path in environmental variables".

Eclipse IDE

- Eclipse workbench is an open source platform designed by IBM and released for the
  open source community. The Following is the link where we can download Eclipse
  IDE for JavaEE Developer (Version: Luna Service Release 2 (4.4.2)).

\texttt{http://www.eclipse.org/downloads/packages/eclipse-ide-java-ee-developers/lunasr2}

- Download eclipse zip file and extract it.
- To start eclipse double click on eclipse.exe
- The Workspace launcher is displayed. The workspace is the directory where all
  created code is stored.

- The workbench looks like the following screenshot.
Android Development Tool (ADT).

- Android Development Tool is the plugin for the eclipse IDE that extends capabilities of eclipse to set up new android projects, create a user interface.
- Go to help in eclipse and install new software.
- From the above link we can download ADT plugin.
Android Software Development Kit (SDK)

- Download the latest SDK zip file and unzip folder and run it as adkmanager.exe
- Install platform tools, USB drivers and an android platform to work on.
- After installing the SDK, we have configure it.
- Android SDK manager consists of tools and the version which we are creating the application.
- We have installed the android platform and build tools. As Android 6.0 is the latest version in the present market, we have installed the android 6.0 package.
- Some of the other packages like android support library, google USB drivers, Intel x86 emulator accelerator were also installed.
- Android SDK manager consists of all the versions of android like from android 2.1 to the latest version of android 6.0. This application should be installed on android 4.0 and higher version.
Android-Support-v7-appcompat

- Download the android support library using the SDK Manager.
- Adding libraries with resources to add a Support Library with resources to your application project.

3.1.3 Hardware Requirements

For developing the application the following are the Hardware Requirements:
Processor: P IV or higher
RAM: 256 MB
Space on disk: minimum 512MB

For running the application:
Device: Android version 4.0 and higher
Minimum space to execute: 5.0MB
4. System Architecture and Design

4.1 System Architecture.

Figure 1: Android Architecture showing the major components of Android OS.

The above figure [1] shows the diagram of Android architecture. Android operating system comprise of different software components arranges in stack. Different components of android operating system are
4.1.1 **Linux kernel:** This is the bottom layer of android operating that has display drivers, camera drivers, audio drivers and Wi-Fi drivers.

4.1.2 **Libraries:** This layer is on the top of Linux kernel which is useful for well-functioning of android system.

4.1.3 **Android Run time:** This is the most important layer that has Dalvik virtual machine which is similar to JVM but only difference is that it is designed and optimized for android.

4.1.4 **Application Framework:** This is useful to interact with application framework.

4.1.5 **Applications:** Applications created by developers will be installed on application layer.

### 4.2 System Design

A System design is needed to implement the application. This section depicts the design using the Unified Modeling Language.

**4.2.1 Use Case Diagram:**

A Use Case Diagram is used to capture the actors and the roles they perform in an application. There is only one user in this application.
User

Profile
- Add
- Delete

Images
- Add
- Delete

Quotes
- Add
- Delete

Settings
- Choose Image
- Choose Quote
- Set background
- Time
4.2.2 Flow Diagram

Start

Profile → Images → Quotes → Setting

Choose image

Choose Quote

With Time

Sharable

Set as Background

Yes

NO
5. Android Framework Components

In this section, there are various components of an android application.

5.1. AndroidManifest.xml file

Every android application must have an AndroidManifest.xml file in its root directory. This file lists out all the activities, intents, intent-filters etc the application user. This file is responsible for providing all the information about the application to the Android system.

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.govst"
    android:versionCode="1"
    android:versionName="1.0" >

    <uses-sdk android:minSdkVersion="14" />

    <supports-screens
        android:anyDensity="true"
        android:largeScreens="true"
        android:normalScreens="true"
        android:smallScreens="true"
        android:xlargeScreens="true" />

    <uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE" />
    <uses-permission android:name="android.permission.READ_EXTERNAL_STORAGE" />
    <uses-permission android:name="android.permission.CAMERA" />
    <uses-permission android:name="android.permission.SET_WALLPAPER"/>
    <uses-feature android:name="android.hardware.camera" />
    <uses-feature android:name="android.hardware.camera.autofocus" />
    <uses-permission android:name="android.permission.SET_WALLPAPER_HINTS"/>

    <application
        android:allowBackup="true"
        android:icon="@drawable/ic_launcher"
        android:label="@string/app_name"
        android:largeHeap="true"
        android:theme="@style/Theme.MyTheme" >
        <activity
            android:name="ui.SplashActivity"
            android:label="@string/app_name" >
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```
In manifest file we can be able to get permissions from camera, read and write and also permission for setting an image as wallpaper.
5.2 Activities

An activity provides a means of interaction to the user. Almost all activities interacts with the user. This application has the following activities: AddQuote Activity, Background Activity, categoryItems Activity, chooseImages Activity, Choosequote Activity, Choosequotes Activity, FullScreen Activity, Home Activity, QuotesItems Activity, Splash Activity and Startup Activity.

5.2.1 AddQuotes Activity

This class lets a user to add a Quotation to the Quotes category where a quotation can be added to any category and also can be deleted.

5.2.2 Background Activity

This enables a user to set a picture as background. This activity is also responsible to set the picture that is concatenated with a quotation.

5.2.3 CategoryItem Activity

This class is responsible to display the different categories that are present in the application such as Nature, Wildlife, Theme Parks, Landscapes and places. These categories consists of at least ten photos in each of them.

5.2.4 ChooseImages Activity

This class enables a user to select the desired photos that he/she wants to set it as a background picture also that can be sharable in social networking. This class consists of all the images that are present in each category.

5.2.5 ChooseQuote Activity

This class enables a user to select the desired quotation that he/she wants to use it on the images.

5.2.6 ChooseQuotes Activity
This class is used to select any number of quotations that are used to set those on images.

5.2.7 FullScreenImage Activity

This class is used to select a photo and can be able to set it as full screen on the phone.

5.2.8 Home Activity

This class is the start page of the application where the user can be able to edit his name and photo.

5.2.9 Splash Activity

This class enables a user to save images to SD card i.e. to phone memory.

5.2.10 Startup Activity

This class enable a user to choose favorites pictures and quotes and also can be able to set time interval to change the background picture.
6. Implementation

This application is designed from a user perspective. The user friendly design and implementation helps a user to accomplish a task with an ease. It has been made with simple design and understandable.

The screens were developed in XML language and the basic logic was written in java. DDMS stands for Dalvik Debug Monitor Server by which port forwarding services, Screen capturing on device, and the information related to the device that is connected can be known.

6.1 Graphical User Interface

The user interface is so simple and user friendly and also can be understood easily. The following are the main screens of the application.

- Profile Screen
- Category Screen
- Quotes Screen
- Settings Screen
- About

6.1.1 Home Screen.

This is the starting page of the application. In this page user can be able to add a photo and name where both of them are editable.
6.1.2 Category Screen.

In this page there are five categories where each of the category has different photos in it where a user can be able to add and delete a photo. A photo can also be taken from camera. Each category has a unique icon to differentiate. Nature, Wildlife, landscapes, Places, Theme Parks are five categories that are present.
6.1.3 Quotes Screen.

In this page there are Quotations where they are divided into five types. Each type can be differentiated by using an icon. In each of them there are five quotations and can be able to add and delete.
In order to succeed, we must first believe that we can.

Either you run the day or the day runs you.

Life is 10% what happens to you and 90% how you react to it.

Keep your eyes on the stars, and your feet on the ground.

The secret of getting ahead is getting started.
6.1.4 Settings Screens.

In this screen a user can be able to get started to choose as many as pictures and also quotes and also can be able to set the time limit to set that image as background.
Choose your favourite pictures and quotes, time interval to change pictures and set them as your phone background sequentially.

Get Started

Choose Pictures

Choose Quotes

Choose Time Interval (Minutes)

Choose Interval...

Start Background Service

In order to succeed, we must first believe that we can.
Either you run the day or the day runs you.
Life is 10% what happens to you and 90% how you react to it.
Keep your eyes on the stars, and your feet on the ground.
The secret of getting ahead is getting started.
The best preparation for tomorrow is doing your best today.
Try to be a rainbow in someone’s cloud.
Perfection is not attainable, but if we chase perfection we can catch
Nothing is impossible, the word itself says 'I'm possible!
We know what we are, but know not what we may be.
6.1.5 About

In this application one can upload photos into different categories. At the same time he can upload some quotations such as motivational, encouragement and many more into different categories where one can concatenate one picture and a quotation. The concatenated photos can be used as background picture where user can personalize as fixed or randomly by shuffling. The photos that are displayed as background picture are saved in the same application where it can shared in social media.
7. Testing

7.1 Unit Testing

In Unit Testing, various modules were tested manually. So that we expect result on the screen. This testing was made on Moto G2 by installing required Motorola drivers to support. The following were the tests that are implemented on the application

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Profile Page</td>
<td>In Home screen name and photo should be able to edit</td>
<td>Pass</td>
</tr>
<tr>
<td>2</td>
<td>On clicking Category tab</td>
<td>It should be able to load categories with different icons</td>
<td>Pass</td>
</tr>
<tr>
<td>3</td>
<td>On clicking Quotes tab</td>
<td>It should be able to load Quotes with different icons</td>
<td>Pass</td>
</tr>
<tr>
<td>4</td>
<td>Settings Page</td>
<td>In this page user should be able to choose as many as photos and quotes to set them as background</td>
<td>Pass</td>
</tr>
<tr>
<td>5</td>
<td>About</td>
<td>It should have information about the application</td>
<td>Pass</td>
</tr>
<tr>
<td>6</td>
<td>Sharable</td>
<td>Both the images with quotations and without quotation should be able to share in social media</td>
<td>Pass</td>
</tr>
<tr>
<td>7</td>
<td>Delete and Add</td>
<td>Both the images and Quotes can be added and deleted</td>
<td>Pass</td>
</tr>
<tr>
<td>8</td>
<td>Change in images</td>
<td>Images that are set as background should be able to change according to the time limit</td>
<td>Pass</td>
</tr>
<tr>
<td>9</td>
<td>Landscape mode</td>
<td>Application can changed to landscape mode</td>
<td>Pass</td>
</tr>
</tbody>
</table>
8. Conclusion
This is our first attempt in developing an android application that gave us a basic understanding and challenges of mobile applications development. The main aim of this project is easy to use application to set an image with a quotation as a background. After developing, this application was also tested on real devices.

9. Future Work
This application can be improved in many ways such as improving graphical user interface and also that it should be able to compatible with IOS and tablets.

10. Acknowledgement
We express our great pleasure and our sincere gratitude to our advisor Johnsen Bryce and Professor N.Chen for their suggestions that helped us in completing out project work.

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- Motorola USB Drivers