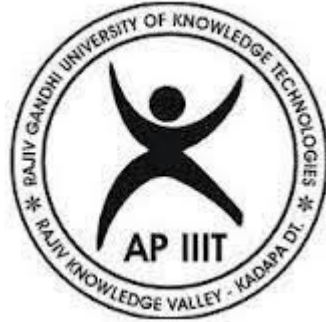


“DGoals”
BACHELOR OF TECHNOLOGY
in
COMPUTER SCIENCE AND ENGINEERING



RGUKT
Rajiv Gandhi University of Knowledge
Technologies R.K.VALLEY

Submitted by
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Under the Esteemed guidance
of Mr.N.SathyaNandaram

RGUKT RK Valley.

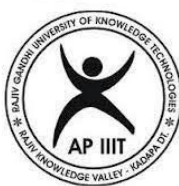
DECLARATION

I here by declare that the report of the B.Tech Major Project Work entitled “DGoals” which is being submitted to Rajiv Gandhi University of Knowledge Technologies, RK Valley, in partial fulfillment of the requirements for the award of Degree of Bachelor of Technology in Computer Science and Engineering, is a bonafide report of the work carried out by us. The material contained in this report has not been submitted to any university or institution for award of any degree.

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Dept. Of Computer Science and Engineering.

RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES



RGUKT

(A.P.Government Act 18 of 2008)

IIIT RK VALLEY, RGUKT-AP

Department of Computer Science and Engineering

CERTIFICATE FOR PROJECT COMPLETION

This is certify that the project entitled “Dgoals” submitted by H.S.Badullah (R161145) under our guidance and supervision for the partial fulfillment for the degree Bachelor of Technology in Computer Science and Engineering during the academic year 2021-2022 at IIIT ,RK VALLEY RGUKT-AP.To the best of my knowledge, the result embodied in this dissertation work have not been submitted to any University or Institute for the award of any degree or diploma.

Project Internal Guide

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ABSTRACT

In this busy world , time management is very crucial. We may have many goals to do in a day. We spend much time to do the goals we have. Our Dgoals helps to solve this problem. In the Dgoal you can add goal with a name and description to it. You can select the starting time of the goal . It is the time that the goal is to be started. You can select the ending time of the goal. It is the time at which the the goal is to be finished. You can select the day on which the task is to be started. You can select the category on which the goal is based. By selecting all the details you can add a goal and a timer for it. You can view the goal and start the count down for the respective goal. If you completed the goal and you don't want to wait till the counter ends, you can end up by clicking mark as done and if don't want to do the task you can simply click on give up. All these performances are recorded and notes the success rate and failure rates of the goals you have added. In this project we help to solve the time management to some extent.

INTRODUCTION

Dgoal is the mobile app which helps in managing the prime time of one person. Many employees in software companies are facing these problem. They can't have food at time. They miss the todo goals in the particular day. Our Dgoal app helps this problem to some extent. We take many inputs from the user such as goal name and description . Goals starting time and ending time .

The day on which the goal should started and the category on which the goal is based. By taking the details we plot a pie chart regarding on which task you are taking much time. So that you can reduce if necessary.

We display the success rate and failure rate of tasks based on completed or dropped.

CONTRIBUTION

The objective of this project is to provide a platform on which the prime time of a person is valued through the setting todo goals on particular day. In this project i developed goal system with a count down timer . In this i have used sqlite to store data taken from the user and to further. I have imported mp chart library to plot the pie chart , line chart , bar chart .Pie chart is used to display the content on which category the person is spending the more time.Line chart are used to display the success and failure rate of goals you are working on . By theese user could alert and plan the goals according to his timings that he has.

PRELIMINARIES

SQLITE

Sqlite is an open-source relational database that is used to perform database operations on android devices such as storing , manipulating or retrieving persistent data from the database.

It is embedded in android by default. So, there is no need to perform any database setup or administration task.

Sqlite is a software library that implements a self-contained ,serverless , zero-configuration , transactional sql database engine. It is zero configured , which means like other databases you do not need to configure it in your system.

SQLite is not a standalone process like other database , you can link it statically and dynamically as per your requirement with your application.

SQLite accesses its storage files directly.

MPAndroid Chart

It is a free Android chart/view graph library using which you can draw line chart, bar chart, pie chart, radar chart , bubble chart , candle stick charts.

There are times when we deal with large datasets . In those scenarios , it is quite useful to use charts and graphs to get visual representation of data.

In android world, charts can be easily built using various libraries.

MPAndroidChart also supports scaling, dragging , animations. It is a popular library available via GitHub.

Mobile App Development :

Mobile app development is the building and maintenance of apps; it's the work that happens behind the scenes to make a website look great, work fast and perform well with a seamless user experience.

Real life Mobile applications :

E-Commerce :

E-commerce is the buying and selling of goods or services via the internet, these all buying and selling orders will be performed by using a website. Few of the famous e-commerce mobile apps which provides online shopping are Amazon, Flipkart, AliExpress, etc..

Transportation

Web apps are used in transportation sector for booking train or bus tickets in public or Private transportation system. We can also book flight tickets by using websites. Some of the Ticket booking apps are IRCTC, APSRTC, REDBUS, MAKEMYTRIP , etc..

For transportation within cities we regularly use cab services for that cab service booking Aslo we can use apps like OLA, GOIBIBO, UBER, etc..

Education :

In education sector we use apps very frequently for doubts clarifications and for learning Resources. Now a days all the teaching is being done through online only, for that teaching also schools Are using online teaching apps like ZOOM, GOOGLE MEET, MICROSOFT TEAM, etc..

For preparing competetive exams and self learning there few apps like KHAN ACADAMY, BYJUS, W3schools,etc..

Social Media :

Social Media are different mobile apps that are used for interacting with others , for sharing Of information ,images or videos etc.. over internet. Most used and famous websites around internet are social media sites,few of them are YOUTUBE, FACEBOOK, INSTAGRAM, TWITTER, LINKEDIN, WHATSAPP, etc..

Daily almost every internet user will visit youtube for entertainment or educational purpose, and also Uses FB,INSTAGRAM to interact with friends, WhatsApp for communication with family and relatives and like .This apps are part of our life.

Approach

Mobile Frameworks:

A Mobile framework or web application framework is a software framework that is designed to support the development of mobile applications including android framework, flutter, and react native. Mobile frameworks provide a standard way to build and deploy web applications on the World Wide Web.

Mobile frameworks are playing a major role in the creation of today's most compelling mobile applications, because they automate many of the tedious tasks, allowing developers to instead focus on providing users with creative and powerful features.

Database– Today nearly all web development frameworks are database driven. They provide support to multiple databases like NoSQL, Firebase, Oracle, and others. Every dynamic application facilitates the end-user to add, delete, and maintain records.

Rest APIs - REST is an acronym for Representational State Transfer. Sharing data between two or more systems has always been a fundamental requirement of software development. A REST API is a way for two computer systems to communicate over HTTP in a similar way to web browsers and servers. Similar to REST, you may encounter CORBA, SOAP, or XML-RPC e.t.c which usually establish strict messaging rules.

JAVA, XML:

An overview



Java is a general purpose, class-based, Object-oriented Programming language designed for having lesser implementation dependencies. It is a computing platform for application development. Java is fast, secure and reliable.

Therefore, It is widely used in developing Java applications for laptop, Mobile, data centers, gaming consoles.



XML stands for Extensible Markup Language. It is a text-based markup language derived from Standard Generalized Markup Language (SGML).

XML is used to control presentation, formatting, and layout.

Android



Android is an open source and Linux-based Operating System for mobile devices such as smartphones and tablet computers. Android was developed by the *Open Handset Alliance*, led by Google, and other companies.

Android offers a unified approach to application development for mobile devices which means developers need only develop for Android, and their applications should be able to run on different devices powered by Android.

The first beta version of the Android Software Development Kit (SDK) was released by Google in 2007 where as the first commercial version, Android 1.0, was released in September 2008.

- **Advantages of using Android development**

- . **Low Investment & High ROI:** Android comparatively has a low barrier to entry. Android provides freely its Software Development Kit (SDK) to the developer community which minimizes the development and licensing costs.

- . **Open Source:** Get the open source advantage from licensing, royalty-free, and the best technology framework offered by the Android community. The architecture of the Android SDK is open-source which means you can actually interact with the community for the upcoming expansions of android mobile application development.

- . **Easy to Integrate:** The entire platform is ready for customization. You can integrate and tweak the mobile app according to your business needs. Android is the best mobile platform between the application and processes architecture. Most of the platforms allow background processes helping you to integrate the apps.

Technologies and Softwares

Technologies :

- Android SDK
- Java
- XML
- SQLITE
- MPCHART

Softwares :

- Android studio

Android SDK

Android SDK stands for Android Software Development Kit which is developed by Google for Android Platform. With the help of Android SDK, we can create android Apps easily.

About Android SDK

Android SDK is a collection of libraries and Software Development tools that are essential for Developing Android Applications. Whenever Google releases a new version or update of Android Software, a corresponding SDK also releases with it. In the updated or new version of SDK, some more features are included which are not present in the previous version. Android SDK consists of some tools which are very essential for the development of Android Application. These tools provide a smooth flow of the development process from developing and debugging. Android SDK is compatible with all operating systems such as Windows, Linux, macOS, etc.

Android SDK Tools

- Required libraries.
- Debugger.
- An emulator.
- Relevant documentation for the Android application program interfaces (APIs).
- Sample source code.
- Tutorials for the Android OS.

XML

Android layouts are written in eXtensible Markup Language, also known as XML. Much like HTML (or HyperText *Markup Language*), XML is also a markup language. It was created as a standard way to encode data in internet-based applications. However, *unlike* HTML, XML is case-sensitive, requires each tag is closed properly, and preserves whitespace.

Much like creating an HTML layout and later altering it with jQuery, we can create XML layouts in Android, and later alter them using Java logic.

Android XML layouts are also part of a larger umbrella of Android files and components called resources. Resources are the additional files and static content an application needs, such as animations, color schemes, layouts, menu layouts.

Anatomy of Android XML Layouts

Each layout file must contain one (and only one!) root element. Linear Layouts, Relative Layouts, and Frame Layouts (see Root Views section below) may all be root elements. Other layouts may not be. All other XML elements will reside within this root object.

A **View** is simply an object from Android's built-in View class. It represents a rectangular area of the screen, and is responsible for displaying information or content, and event handling. Text, images, and buttons are all Views in Android.

A **ViewGroup** is a subclass of View, and is essentially an 'invisible container' that holds multiple Views or ViewGroups together, and defines their layout properties.

A **floating action button** (FAB) is a circular button that triggers the primary action in your app's UI. This page shows you how to add the FAB to your layout, customize some of its appearance, and respond to button taps.

Android Spinner is like the combobox box of AWT or Swing. It can be used to display the multiple options to the user in which only one item can be selected by the user. Android spinner is like the drop down menu with multiple values from which the end user can select only one value.

TextView is the widget used when you want the user to View the Text (such as a label, etc) and **EditText** used when you want the user to be able to edit the text. The text in either widget can be set programmatically or via xml using the android:text parameter.

Project:

- To Create Goal:



Create New Goal

NAME

DESCRIPTION

START TIME

END TIME

00:00 AM

00:00 AM

DATE

Today

Tommorow

Mon, 02

T

CATEGORY

SPORT

EDUCATION

WORK OUT

CODING

COMMON

ART WORK

CREATE GOAL

```

createGoalButton.setOnClickListener((v) -> {

    if (goalName.getText().toString().isEmpty() || goal
    ) {
        showMessage("empty fields");
    }
    else if (checkedCatagory == 0) {
        showMessage("select a category");
    }
    else if (checkedDate == null){
        showMessage("select a date");
    }
    else {
        updateUI();
    }
}

```

If all the fields get entered then we will update the data in the database.

```

private void updateUI() {
    String gName = goalName.getText().toString();
    String descri = goalDescription.getText().toString();
    String sTime = startTime.getText().toString()+" "+starTimeAmPm.getText().toString();
    String eTime = endTime.getText().toString()+" "+endTimeAmPm.getText().toString();
    String date = dateAndTimeAlgorithm.getFormatDateForDB(checkedDate);
    replyIntent.putExtra(GOAL_NAME_STRING, gName);
    replyIntent.putExtra(GOAL_DESCRIPTION_STRING, descri);
    replyIntent.putExtra(GOAL_START_TIME_STRING, sTime);
    replyIntent.putExtra(GOAL_END_TIME_STRING, eTime);
    replyIntent.putExtra(GOAL_DATE_STRING, date);
    replyIntent.putExtra( name: "previousTime", previousTime);
    replyIntent.putExtra(GOAL_CATEGORY_STRING, checkedCatagory);
    setResult(RESULT_OK, replyIntent);
    finish();
}

```

If we click on the goal, respective view will opened:



project

android

1:00

Mark as Done



Give Up

Here, there are play pause button to start or stop the goal, hence the counter will start the timer.

```
private void makeEverything(){
    playPauseButton.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            if (isPlaying) {
                pause();
            }
            else {
                play();
            }
        }
    });
}
```

Play pause button is the imageview here we set the onclick listener for it.

If the button is already in the play mode then it pauses or else it will be changed to play mode.

There are two more buttons as mark as done and give up. They are placed there to finish the goal or else to quit the goal.

```
private void markGoneDone() {
    isDone = true;
    goalTimeRemaining = 0;
    if (requestCode != POMODORO_REQUEST_CODE)
        goalViewModel.updateGoalDone(goalId);
    doneButton.setVisibility(View.GONE);
    cancelButton.setVisibility(View.GONE);
    updateUI();
    play();
    pause();
}
```

```

private void markAsFailed() {
    isDone = false;
    if (requestCode != POMODORO_REQUEST_CODE)
        goalViewModel.updateGoalFailed(goalId);
    doneButton.setVisibility(View.GONE);
    cancelButton.setVisibility(View.GONE);
}

```

```

private void startTimer(final long timeRemaining) {
    timer = new CountDownTimer(timeRemaining, countdownInterval) {
        @Override
        public void onTick(long millisUntilFinished) {
            goalTimeRemaining = millisUntilFinished;
            updateProgress( duration: 1000);
            if ((goalTimeRemaining / (1000*60*60))%60 == 0) {
                countdownInterval = 1000;
                countDownTime.setText(calMinandSec( min: (millisUntilFinished/(1000*60))%60,
                                                    sec: (millisUntilFinished/(1000))%60));
            }
            else {
                countDownTime.setText(calMinandSec( min: (millisUntilFinished/(1000*60*60))%60,
                                                    sec: (millisUntilFinished/(1000*60))%60));
            }
        }
    };
}

```

The above code is for to start the timer of the respective goal.

If we click on the mark as done or give up a pop up with a message is raised to take confirmation.

```
private void showConfirmDialog(final int id) {
    AlertDialog.Builder builder = new AlertDialog.Builder(context: this);
    View view = LayoutInflater.from(this).inflate(R.layout.confirm_message, root: null, attachToRoot: false);

    builder.setView(view);
    final AlertDialog dialog = builder.create();
    view.setBackground(getResources().getDrawable(R.drawable.alert_background_rectangle));
    dialog.show();
    dialog.getWindow().setLayout(width: 600, WindowManager.LayoutParams.WRAP_CONTENT);

    view.findViewById(R.id.confirm_cancel_button).setOnClickListener((v) → {
        if (dialog.isShowing()){
            dialog.dismiss();
        }
    });
    view.findViewById(R.id.confirm_ok_button).setOnClickListener((v) → {
        if (dialog.isShowing()) {
            if (id == DONE_ID)
                markGoneDone();
            else if (id == CANCEL_ID)
                markAsFailed();
            dialog.dismiss();
        }
    });
}
```



project

android

Are You Sure?

CANCEL

OK

Mark as Done



Give Up

Key Features:

Simple UI – Following on from quick capture, overall the app should be *simple*. Simple to use. Simple user interface.

Quick Entry– This app should always be ready to quickly capture a random task. It shouldn't require more steps to enter a Goal. They should be quick to allow you to add a goal and get it "out of your head."

Future Tasks- It stores not only the goals of today . It stores the all the goals for next seven day including todays.

Time Management- It helps in managing the time and plan our meetings according to our willing.

Pros And Cons:

Pros:

No licenses or other fees are needed to start with it. The end user doesn't have to download the app and simply use it. No additional Database is required. It uses the existing database .

Cons:

It won't remind us to do the goal as it doesn't have alarm feature.

Features of the project:

key feature:

Random goal is created by giving the inputs like name , description, starting time and ending time, day on which the goal is to be worked, category of goal.

By viewing the goal you can have the counter to start the goal, if you complete the goal before the time you've assigned or else on the time , you can mark as it done or if you want to quit the completing the goal, you can hit give up button.

Time management is the key feature of this app. It helps to do so to some extent.

What's in our app

Random goal is created by giving the inputs like name , description, starting time and ending time, day on which the goal is to be worked, category of goal.

By viewing the goal you can have the counter to start the goal, if you complete the goal before the time you've assigned or else on the time , you can mark as it done or if you want to quit the completing the goal, you can hit give up button.

You can manage your valuable time . It have some analytics on which category you are working the most. So that you can reduce its time and focus on some other work.

Step by Step Implementation:

Collected data required for developing the project:

At first, we've collected the information about what technologies we need to use for this project or for the requirements of this project like Sqlite and MPChart which is the major technology required to our project.

Started designing and implementing the UI designs for the projects:

Giving users a good experience with design and application flow is a crucial task. We implemented good and simple UI designs for the sake of users.

Preparing Database

We used Sqlite here to store user data collected from the user.

Constructed Backend:

Finally we connected the backend with the database to store , manipulate , retrieve the data for the sake of application.

Tested each and every features

For every project the testing is very important. we tested each and every features of the application too. check whether it is working properly or not before bringing it to the customers.

Existing System and it's challenges:

This mobile application helps students as well as employees who can't manage the time. This system uses only database and it doesn't let anyone to know the personal data.

so that Users can feel safe and need to worry about their data privacy and all that stuff.

Challenges:

As there is no alarm feature in this system, many users get bored of remembering the goal to do .

This challenge carried till the alarm feature is introduced in this system.

In case of doing a goal, if you hit the pause button by fault , then your time will be wasted instead of managing the time.

This is a minor challenge but can become the major challenge.

Proposed system and it's Advantages:

This mobile application helps students as well as employees who can't manage the time. This system uses only database and it doesn't let anyone to know the personal data.

so that Users can feel safe and need to worry about their data privacy and all that stuff.

Advantages:

- 1.Efficient use of time.
- 2.Analyisis on which category you are working the most.
- 3.It helps to break goals into actions.
- 4.It helps to reduce the anxiety.
- 5.Time management.
6. Optimal resource allocation.

Fututre Scope of the project:

I Would like and try my level best to take this app to it's peak. I want to boost this application by adding features like alarm, settings, filter , priority among the goals to do the first as priority. I will try to make this much safe so that no user can take wrong advantage of this application. I'll create a admin pannel to this application to do all the operations on this software if any emergency he can use his powers.. making this app much more.

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