Money Matters: A Personal Finance Management App

Introduction
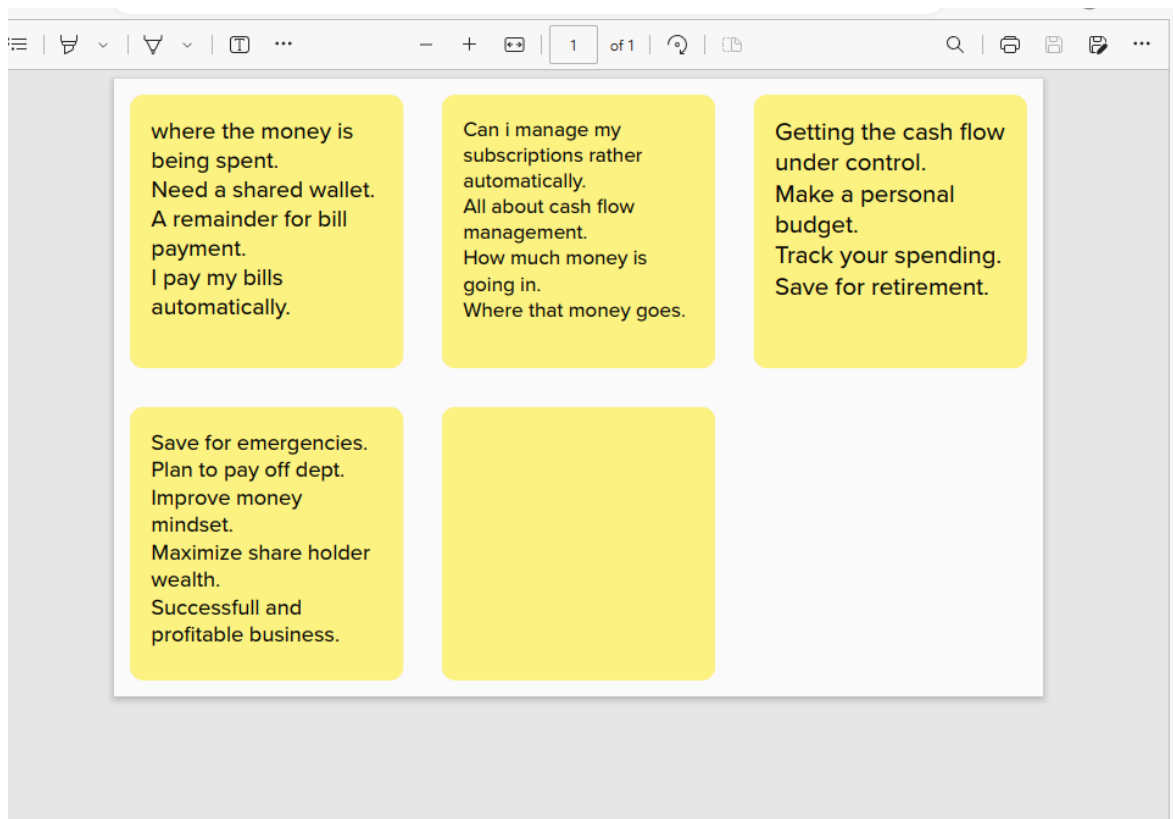
1.1. Overview

Project Description

The Personal Finance Management app allows the user to set their account details, income and expenses.
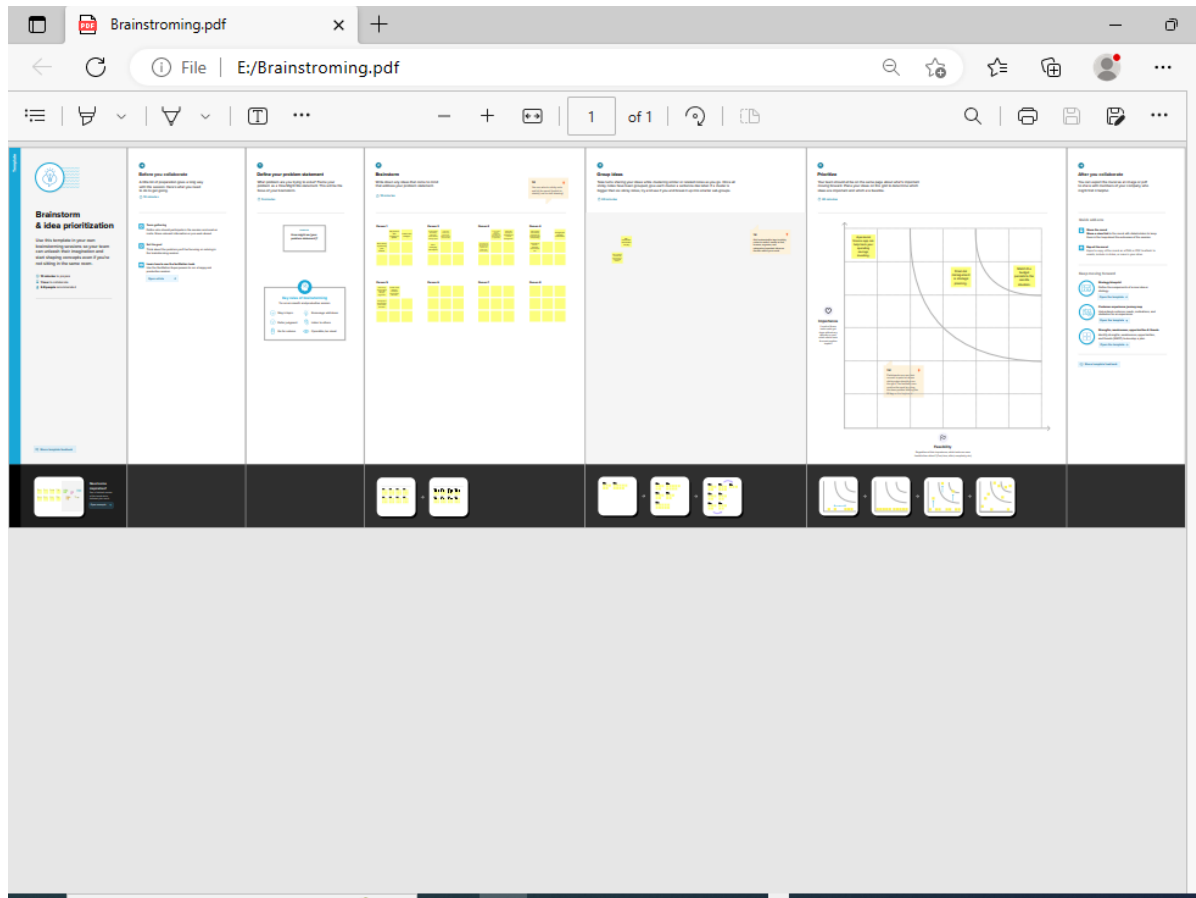
1.2.   Purpose

The app can be used to set a budget for the user and to keep track of his expenses.
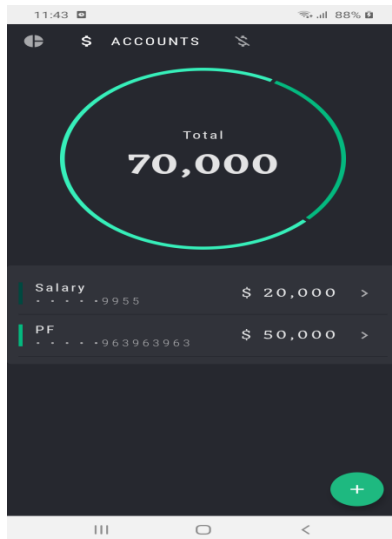
Problem Definition and thinking

2.1. Empathy Map
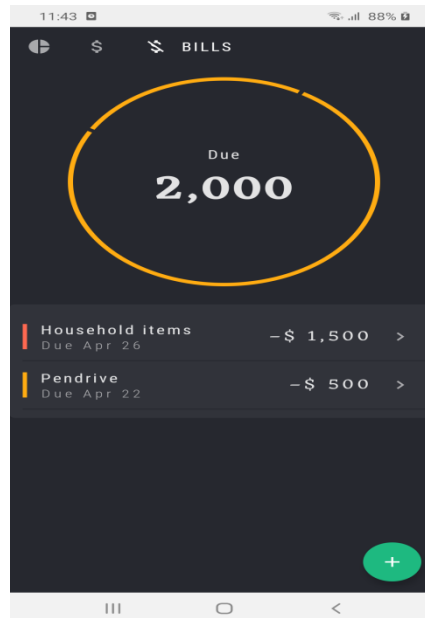
2.2. Ideation and Brainstorming Map

Result

Account

Add Account

Add Bill

Bill

Home   Single Account
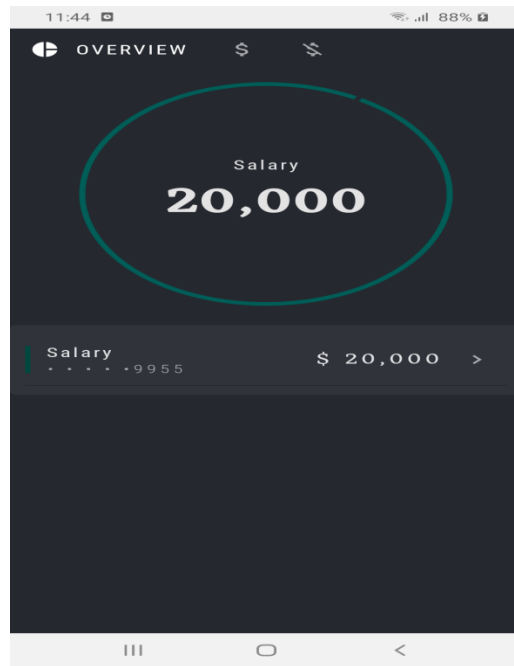
Advantages

The personal finance management app is a mobile app help users to track their income, expenditures, investment, and banking. The appis a working boon for many people those who are not experts in accounting or finance.

Disadvantages

This needs to provide personal information or sensitive information, such as bank login and password, with which someone can gain access to the accounts.

Conclusion

Though the personal finance management app has its own risk, it makes the financial management an easy task. The only thing to be taken care of is that to ensure the app provide enough security against fraudulent attack of data.

Future Scope

The data collected by the app could be analyzed in such a way to provide personalized financial advice and related services.

Appendix

A. Source Code
   AndroidManifest.xml

```xml
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
package="com.devikumari.expense">

<application
android:name="com.devikumari.expense.RallyApp"
android:allowBackup="true"
android:icon="@mipmap/ic_launcher"
android:label="@string/app_name"
android:supportsRtl="true"

android:theme="@style/Theme.Rally">
<activity
android:name="com.devikumari.expense.RallyActivity"
android:windowSoftInputMode="adjustResize"
android:exported="true">
<intent-filter>
<action android:name="android.intent.action.MAIN" />
<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
<intent-filter>
<action android:name="android.intent.action.VIEW" />
<category android:name="android.intent.category.DEFAULT" />
<category android:name="android.intent.category.BROWSABLE" />
<data android:scheme="rally" android:host="single_account" />
</intent-filter>
</activity>
</application>
</manifest>
```

```gradle
buildscript{
repositories {
google()
mavenCentral()
}

dependencies {
classpath"com.android.tools.build:gradle:7.4.0"
classpath"org.jetbrains.kotlin:kotlin-gradle-plugin:1.7.20"
classpath"com.google.dagger:hilt-android-gradle-plugin:2.45"
}
}

plugins {
id 'com.diffplug.spotless' version '6.12.1'
}

subprojects {
repositories {
google()
mavenCentral()
```

```
}
}

        build.gradle
plugins {
id 'com.android.application'
id 'kotlin-android'
id 'kotlin-kapt'
id "dagger.hilt.android.plugin"
}

android {
compileSdkVersion33

defaultConfig{
applicationId"com.devikumari.expense"
minSdkVersion21
targetSdkVersion33
versionCode1
versionName'1.0'
testInstrumentationRunner'androidx.test.runner.AndroidJUnitRunner'
vectorDrawables.useSupportLibrary = true
}

signingConfigs{
    }

buildTypes{
debug {

        }
release {
minifyEnabledtrue
proguardFilesgetDefaultProguardFile('proguard-android-optimize.txt'),
'proguard-rules.pro'
}
    }

compileOptions{
sourceCompatibility JavaVersion.VERSION_1_8
targetCompatibility JavaVersion.VERSION_1_8
}

kotlinOptions{
jvmTarget = '1.8'
}

buildFeatures{
compose true
}

composeOptions{
kotlinCompilerExtensionVersion"1.3.2"
}

packagingOptions{
exclude "META-INF/licenses/**"
```

```
        exclude "META-INF/AL2.0"
        exclude "META-INF/LGPL2.1"
    }
}

dependencies {
def composeBom = platform('androidx.compose:compose-bom:2023.01.00')
    implementation(composeBom)
androidTestImplementation(composeBom)

    implementation "androidx.appcompat:appcompat:1.6.0"
implementation "androidx.core:core-ktx:1.9.0"
implementation "com.google.android.material:material:1.7.0"

// Compose
implementation "androidx.compose.runtime:runtime"
implementation "androidx.compose.ui:ui"
implementation "androidx.compose.foundation:foundation"
implementation "androidx.compose.material:material"
implementation "androidx.compose.material:material-icons-extended"
implementation "androidx.activity:activity-compose:1.6.1"
implementation "androidx.navigation:navigation-compose:2.5.3"
debugImplementation"androidx.compose.ui:ui-tooling"

// Testing dependencies
androidTestImplementation"androidx.arch.core:core-testing:2.1.0"
androidTestImplementation"androidx.test.espresso:espresso-contrib:3.5.1"
androidTestImplementation"androidx.test.espresso:espresso-core:3.5.1"

// Compose testing dependencies
androidTestImplementation"androidx.compose.ui:ui-test-junit4"
debugImplementation"androidx.compose.ui:ui-test-manifest"

//RoomDatabase
implementation "androidx.room:room-runtime:2.5.1"
annotationProcessor"androidx.room:room-compiler:2.5.1"
kapt("androidx.room:room-compiler:2.5.1")

//Hilt
implementation "com.google.dagger:hilt-android:2.45"
kapt"com.google.dagger:hilt-android-compiler:2.45"
//Hilt Navigation Compose
implementation "androidx.hilt:hilt-navigation-compose:1.0.0"


}

tasks.withType(org.jetbrains.kotlin.gradle.tasks.KotlinCompile).configureEach
{
kotlinOptions{
// Treat all Kotlin warnings as errors
allWarningsAsErrors = true

freeCompilerArgs += '-opt-in=kotlin.RequiresOptIn'

// Set JVM target to 1.8
jvmTarget = "1.8"
```

```
    }
}

org.gradle.jvmargs=-Xmx2048m

org.gradle.configureondemand=true
org.gradle.caching=true
org.gradle.parallel=true

# AndroidX package structure to make it clearer which packages are bundled
with the
# Android operating system, and which are packaged with your app's APK
# https://developer.android.com/topic/libraries/support-library/androidx-rn
android.useAndroidX=true

# Kotlin code style for this project: "official" or "obsolete":
kotlin.code.style=official

distributionBase=GRADLE_USER_HOME
distributionPath=wrapper/dists
distributionUrl=https\://services.gradle.org/distributions/gradle-7.6-bin.zip
networkTimeout=10000
zipStoreBase=GRADLE_USER_HOME
zipStorePath=wrapper/dists

settings.gradle
include':app'
rootProject.name = "Expense"
```