

ChatConnect - A Real-Time Chat And Communication App

Introduction

1.1. Overview

Project Description

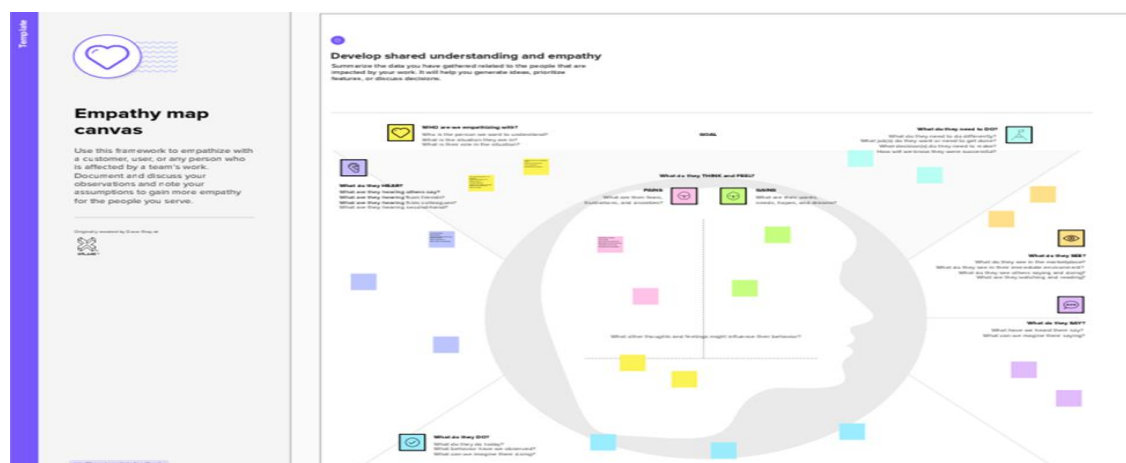
ChatConnect - A Real-Time Chat And Communication App makes use of Android Compose UI toolkit to build an app to allow sending and receiving of messages. The project makes use of Compose declarative UI and state management capabilities.

Purpose

The chat connect app can be used to send and receive text messages easily.

Problem Definition and thinking

2.1. Empathy Map

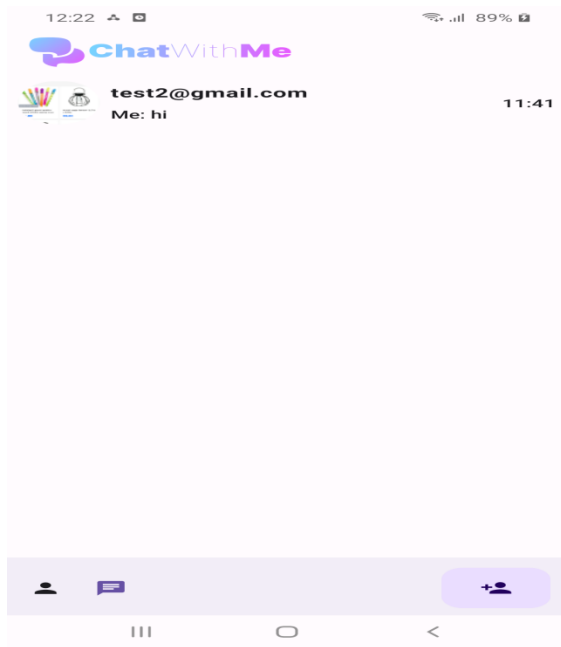


2.2. Ideation and Brainstorming Map

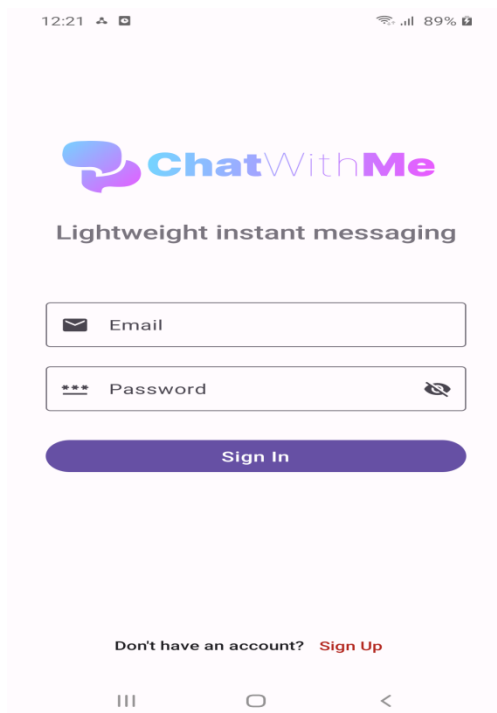


Result

Sign in




Sign up




Profile

12:22

89%





kavi@gmail.com

Full Name

Test

Surname

Test

About You


Value


Phone Number

0123456789

Save Profile

Log Out



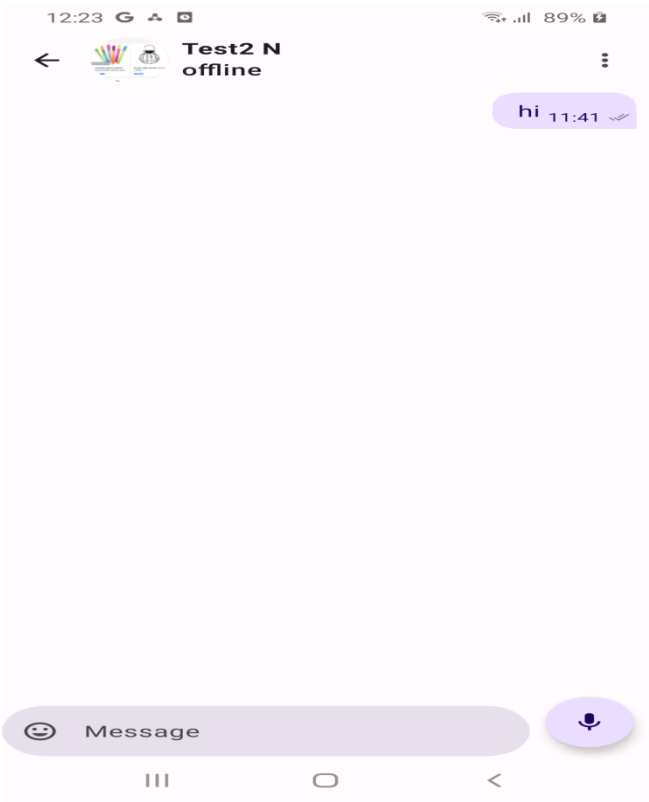


III

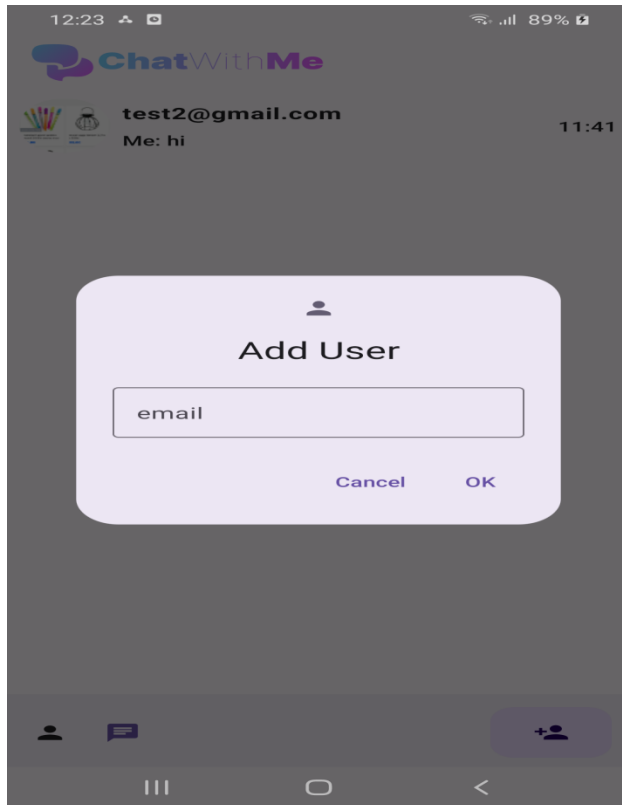
O

<

Chat



Add User



Advantages

Live chat allows users to continue browsing, posting and working in a really faster way. It is available all the time.

Disadvantages

The user needs to be online and older people may not prefer less formalized chats. Online chats might not express the emotion behind the words.

Conclusion

Though there are some disadvantages, chat connect, like any other technology, is most needed now a days, as many prefer to be replied quicker with less tedious manner. As everyone

makes use of internet, being online is not a problem even in rural areas. For business or personal needs, the online chats provides a better way to get connected with the users.

Future Scope

The app could be modified in such a way that it supports file transfer and voice messages, yet in a faster way.

Appendix

A. Source Code

AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    package="com.devikumari.chat">

    <uses-permission android:name="android.permission.INTERNET"/>

    <application
        android:name=".ChatApplication"
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.ChatWithMe"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:windowSoftInputMode="adjustResize"
            android:exported="true"
            android:label="@string/app_name"
            android:theme="@style/Theme.ChatWithMe">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

build.gradle

```
buildscript{
    ext{
        compose_version = '1.3.0-alpha03'
```



```

}
repositories {
mavenCentral()
google()
}
dependencies {
classpath"com.google.gms:google-services:4.3.13"
classpath"com.github.ben-manes:gradle-versions-plugin:0.42.0"
classpath"com.google.dagger:hilt-android-gradle-plugin:2.42"
}
}
plugins {
id 'com.android.application' version '7.2.2' apply false
id 'com.android.library' version '7.2.2' apply false
id 'org.jetbrains.kotlin.android' version '1.7.10' apply false
id 'com.github.ben-manes.versions' version '0.42.0'
}

task clean(type: Delete) {
delete rootProject.buildDir
}

```

settings.gradle

```

pluginManagement{
repositories {
gradlePluginPortal()
google()
mavenCentral()
}
}
dependencyResolutionManagement{
repositoriesMode.set(RepositoriesMode.FAIL_ON_PROJECT_REPOS)
repositories {
google()
mavenCentral()
}
}
rootProject.name = "ChatWithMe"
include ':app'

```

workspace.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<project version="4">
<component name="AndroidLayouts">
<shared>
<config/>
</shared>
</component>
<component name="AutoImportSettings">
<option name="autoReloadType" value="NONE" />
</component>
<component name="ChangeListManager">
<list default="true" id="4d33b470-9484-4cf4-a7f4-84cc7d60be92" name="Changes"
comment="Support files" />
<option name="SHOW_DIALOG" value="false" />

```

```

<option name="HIGHLIGHT_CONFLICTS" value="true" />
<option name="HIGHLIGHT_NON_ACTIVE_CHANGELIST" value="false" />
<option name="LAST_RESOLUTION" value="IGNORE" />
</component>
<component name="ExecutionTargetManager"
SELECTED_TARGET="device_and_snapshot_combo_box_target[]" />
<component name="ExternalProjectsData">
<projectStatepath="$PROJECT_DIR$">
<ProjectState/>
</projectState>
</component>
<component name="Git.Settings">
<option name="RECENT_GIT_ROOT_PATH" value="$PROJECT_DIR$" />
</component>
<component name="MarkdownSettingsMigration">
<option name="stateVersion" value="1" />
</component>
<component name="ProjectId" id="202WukARTLlEeom9Zo35CiyiEAu" />
<component name="ProjectViewState">
<option name="showLibraryContents" value="true" />
</component>
<component name="PropertiesComponent"><![CDATA[{
  "keyToString": {
    "RunOnceActivity.OpenProjectViewOnStart": "true",
    "RunOnceActivity.ShowReadmeOnStart": "true",
    "RunOnceActivity.cidr.known.project.marker": "true",
    "cidr.known.project.marker": "true",
    "last_opened_file_path": "D:/subha/Android project/chat/chat"
  }
}]]></component>
<component name="RunManager">
<configuration name="app" type="AndroidRunConfigurationType"
factoryName="Android App">
<module name="ChatWithMe.app.main" />
<option name="DEPLOY" value="true" />
<option name="DEPLOY_APK_FROM_BUNDLE" value="false" />
<option name="DEPLOY_AS_INSTANT" value="false" />
<option name="ARTIFACT_NAME" value="" />
<option name="PM_INSTALL_OPTIONS" value="" />
<option name="ALL_USERS" value="false" />
<option name="ALWAYS_INSTALL_WITH_PM" value="false" />
<option name="CLEAR_APP_STORAGE" value="false" />
<option name="DYNAMIC_FEATURES_DISABLED_LIST" value="" />
<option name="ACTIVITY_EXTRA_FLAGS" value="" />
<option name="MODE" value="default_activity" />
<option name="CLEAR_LOGCAT" value="false" />
<option name="SHOW_LOGCAT_AUTOMATICALLY" value="false" />
<option name="INSPECTION_WITHOUT_ACTIVITY_RESTART" value="false" />
<option name="TARGET_SELECTION_MODE" value="DEVICE_AND_SNAPSHOT_COMBO_BOX" />
<option name="SELECTED_CLOUD_MATRIX_CONFIGURATION_ID" value="-1" />
<option name="SELECTED_CLOUD_MATRIX_PROJECT_ID" value="" />
<option name="DEBUGGER_TYPE" value="Auto" />
<Auto>
<option name="USE_JAVA_AWARE_DEBUGGER" value="false" />
<option name="SHOW_STATIC_VARS" value="true" />
<option name="WORKING_DIR" value="" />
<option name="TARGET_LOGGING_CHANNELS" value="lldbprocess:gdb-remote packets"

```

```

/>
<option name="SHOW_OPTIMIZED_WARNING" value="true" />
</Auto>
<Hybrid>
<option name="USE_JAVA_AWARE_DEBUGGER" value="false" />
<option name="SHOW_STATIC_VARS" value="true" />
<option name="WORKING_DIR" value="" />
<option name="TARGET_LOGGING_CHANNELS" value="lldbprocess:gdb-remote packets" />
<option name="SHOW_OPTIMIZED_WARNING" value="true" />
</Hybrid>
<Java />
<Native>
<option name="USE_JAVA_AWARE_DEBUGGER" value="false" />
<option name="SHOW_STATIC_VARS" value="true" />
<option name="WORKING_DIR" value="" />
<option name="TARGET_LOGGING_CHANNELS" value="lldbprocess:gdb-remote packets" />
<option name="SHOW_OPTIMIZED_WARNING" value="true" />
</Native>
<Profilers>
<option name="ADVANCED_PROFILING_ENABLED" value="false" />
<option name="STARTUP_PROFILING_ENABLED" value="false" />
<option name="STARTUP_CPU_PROFILING_ENABLED" value="false" />
<option name="STARTUP_CPU_PROFILING_CONFIGURATION_NAME" value="Java/Kotlin
Method Sample (legacy)" />
<option name="STARTUP_NATIVE_MEMORY_PROFILING_ENABLED" value="false" />
<option name="NATIVE_MEMORY_SAMPLE_RATE_BYTES" value="2048" />
</Profilers>
<option name="DEEP_LINK" value="" />
<option name="ACTIVITY_CLASS" value="" />
<option name="SEARCH_ACTIVITY_IN_GLOBAL_SCOPE" value="false" />
<option name="SKIP_ACTIVITY_VALIDATION" value="false" />
<method v="2">
<option name="Android.Gradle.BeforeRunTask" enabled="true" />
</method>
</configuration>
</component>
<component name="SpellCheckerSettings" RuntimeDictionaries="0" Folders="0"
CustomDictionaries="0" DefaultDictionary="application-level"
UseSingleDictionary="true" transferred="true" />
<component name="TaskManager">
<task active="true" id="Default" summary="Default task">
<changelistid="4d33b470-9484-4cf4-a7f4-84cc7d60be92" name="Changes"
comment="" />
<created>1680759383257</created>
<option name="number" value="Default" />
<option name="presentableId" value="Default" />
<updated>1680759383257</updated>
</task>
<task id="LOCAL-00001" summary="Support files">
<created>1680769276341</created>
<option name="number" value="00001" />
<option name="presentableId" value="LOCAL-00001" />
<option name="project" value="LOCAL" />
<updated>1680769276341</updated>
</task>

```

```

<option name="localTasksCounter" value="2" />
<servers />
</component>
<component name="Vcs.Log.Tabs.Properties">
<option name="TAB_STATES">
<map>
<entry key="MAIN">
<value>
<State />
</value>
</entry>
</map>
</option>
</component>
<component name="VcsManagerConfiguration">
<MESSAGE value="Support files" />
<option name="LAST_COMMIT_MESSAGE" value="Support files" />
</component>
</project>

```

Appendix

B. Source Code

AndroidManifest.xml

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools">

<uses-permission android:name="android.permission.INTERNET" />

<application
android:name="com.devikumari.survey.base.SurveyApp"
android:allowBackup="false"
android:icon="@mipmap/ic_launcher"
android:roundIcon="@mipmap/ic_launcher"
android:label="@string/app_name"
android:supportRtl="true"
android:theme="@style/Theme.Survey"
android:usesCleartextTraffic="true"
tools:targetApi="31" >
<activity
android:name="com.devikumari.survey.base.MainActivity"
android:exported="true" >
<intent-filter>
<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
</activity>

<provider
android:name="androidx.core.content.FileProvider"
android:authorities="${applicationId}.fileprovider"
android:grantUriPermissions="true"
android:exported="false">
<meta-data

```

```

    android:name="android.support.FILE_PROVIDER_PATHS"
    android:resource="@xml/filepaths" />
</provider>
</application>

</manifest>

```

build.gradle

```

buildscript{
    ext{
        gradle_version = '7.4.1'
        kotlin_version = '1.8.0'
        compose_bom_version = '2023.01.00'
        material3_version = '1.1.0-beta01'
        material_version = '1.4.0'
        compose_version = '1.4.0'
        hilt_navigation_compose_version = '1.0.0'
        constraintlayout_version = '1.0.1'
        coil_version = '2.2.2'
        accompanist_pager_version = '0.18.0'
        materialchip_version = '3.0.5'
        navigation_version = '2.6.0-alpha05'
        preview_version = '1.4.0'
        core_version = '1.9.0'
        material_icons_version = '1.4.0'
        fragment_version = '1.3.3'
        activity_version = '1.2.0-alpha08'
        hilt_version = '2.45'
    }
    dependencies {
        classpath"com.google.dagger:hilt-android-gradle-plugin:$hilt_version"
    }
}

plugins {
    id 'com.android.application' version "${gradle_version}" apply false
    id 'com.android.library' version "${gradle_version}" apply false
    id 'org.jetbrains.kotlin.android' version "${kotlin_version}" apply false
}

task clean(type: Delete) {
    delete rootProject.buildDir
}

```

settings.gradle

```

pluginManagement{
    repositories {
        google()
        mavenCentral()
        gradlePluginPortal()
    }
}
dependencyResolutionManagement{
    repositoriesMode.set(RepositoriesMode.FAIL_ON_PROJECT_REPOS)
}

```

```

        repositories {
            google()
            mavenCentral()
        }
    }
    rootProject.name = "survey"
    include ':app'

```

build.gradle(app)

```

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

android {
    compileSdk33

    defaultConfig{
        applicationId"com.devikumari.survey"
        minSdk21
        targetSdk33
        versionCode1
        versionName"1.0"

        testInstrumentationRunner"androidx.test.runner.AndroidJUnitRunner"
    }

    buildTypes{
        release {
            minifyEnabledfalse
            proguardFilesgetDefaultProguardFile('proguard-android-optimize.txt'),
            'proguard-rules.pro'
        }
    }
    compileOptions{
        sourceCompatibility JavaVersion.VERSION_11
        targetCompatibility JavaVersion.VERSION_11
    }
    kotlinOptions{
        jvmTarget = JavaVersion.VERSION_11
    }
    buildFeatures{
        compose true
    }
    composeOptions{
        kotlinCompilerExtensionVersioncompose_version
    }
    namespace 'com.devikumari.survey'
}

dependencies {
    //Compose
    implementation platform("androidx.compose:compose-bom:$compose_bom_version")

```

```

        implementation "androidx.compose.material3:material3:$material3_version"
        implementation "com.google.android.material:material:$material_version"

//Hilt
        implementation "com.google.dagger:hilt-android:$hilt_version"
        kapt "com.google.dagger:hilt-android-compiler:$hilt_version"
//Hilt Navigation Compose
        implementation "androidx.hilt:hilt-navigation-
compose:$hilt_navigation_compose_version"
//ConstraintLayout
        implementation("androidx.constraintlayout:constraintlayout-
compose:$constraintlayout_version")
//Image Loading
        implementation("io.coil-kt:coil-compose:$coil_version")
//pager
        implementation("com.google.accompanist:accompanist-
pager:$accompanist_pager_version")
//chips
        implementation("com.robertlevonyan.compose:materialchip:$materialchip_version
")
//navigation
        implementation("androidx.navigation:navigation-compose:$navigation_version")
//Preview
        implementation("androidx.compose.ui:ui-tooling-preview:$preview_version")
        implementation("androidx.compose.material:material-icons-
extended:$material_icons_version")
// Kotlin
        implementation("androidx.core:core-ktx:$core_version")
        implementation("androidx.fragment:fragment-ktx:$fragment_version")
        implementation("androidx.activity:activity-ktx:$activity_version")

}
gradle-wrapper

```

#Wed Mar 22 22:44:54 IST 2023

distributionBase=GRADLE_USER_HOME

distributionUrl=https\://services.gradle.org/distributions/gradle-7.5-bin.zip

distributionPath=wrapper/dists

zipStorePath=wrapper/dists

zipStoreBase=GRADLE_USER_HOME