SEMESTER PROJECT (FASTnFITNESS)

LINKS:

Video on github

https://github.com/Faizan-5/FastnFitnessApp (github)

GROUP MEMBERS:

- ALI HAMZA
- HUSSNAIN ZIA
- FAIZAN NABI

PROJECT DESCRIPTION: FITNESS APP

Project Goal:

To develop a comprehensive fitness app that empowers users to achieve their health and wellness objectives through personalized workout plans, nutrition tracking, progress monitoring, and a supportive community.

Target Audience:

The app will cater to a diverse range of users, including individuals seeking weight loss, muscle gain, improved fitness levels, and overall well-being.

Key Features:

- **Personalized Workout Plans:** Generate tailored workout routines based on user fitness goals, experience level, and equipment availability.
- **Exercise Library:** Offer a vast database of exercises with detailed instructions, video demonstrations, and difficulty levels.
- **Nutrition Tracking:** Provide tools for calorie counting, macronutrient tracking, and meal planning to support dietary goals.
- **Progress Tracking:** Monitor user progress through metrics like weight, body measurements, and exercise performance. **Technology Stack:**

- SQLite Java

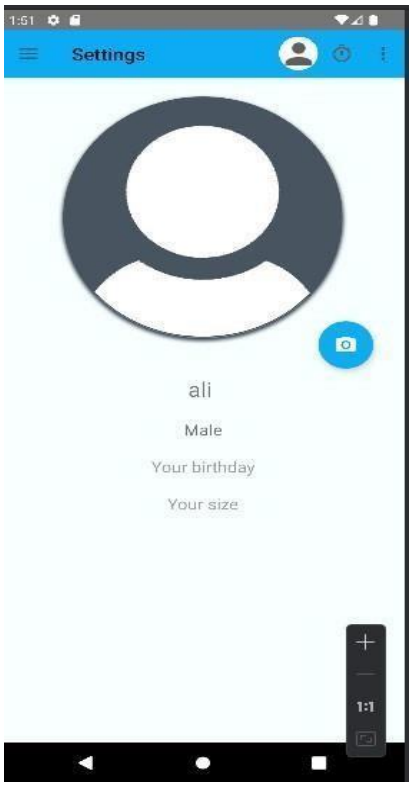
Key features/Functionalities/Screens:

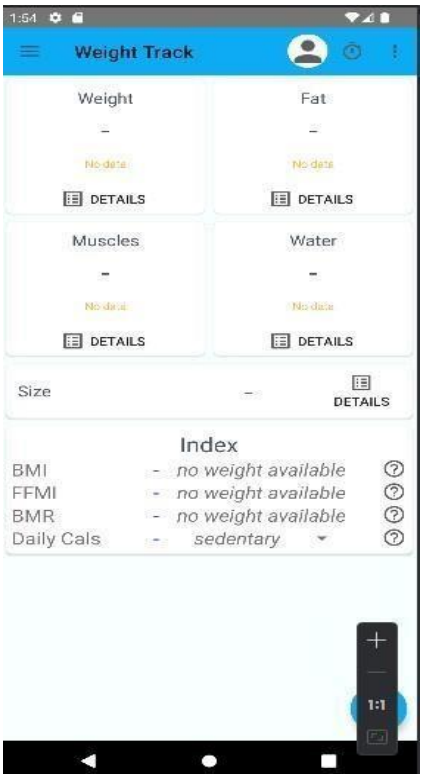
1. **Profile Management**:
    - Creating, selecting, deleting, and renaming profiles.
    - Setting and displaying profile pictures.
2. **Workout Tracking**:
    - Logging and viewing strength training exercises (FontesPagerFragment). ○ Recording and tracking body weight (WeightFragment).
    - Logging cardio exercises and viewing workout history.
3. **Exercise Data**:
    - Viewing and managing exercise machines (MachineFragment).
    - Accessing and following workout programs (ProgramListFragment).
4. **Progress Tracking**:
    - Tracking body measurements (BodyPartListFragment).
    - Viewing progress pictures (ProgressImagesFragment).
5. **Settings and Preferences**:
    - Customizing app settings (SettingsFragment).
    - Day/night mode selection.
6. **Data Management**:
    - Exporting workout data to CSV format. ○ Importing workout data from CSV or ZIP files.
    - Database management (deleting and migrating).
7. **Additional Features**:
    - Music control integration. ○ Chronometer for tracking workout duration. ○ Introduction/tutorial screens for new users.

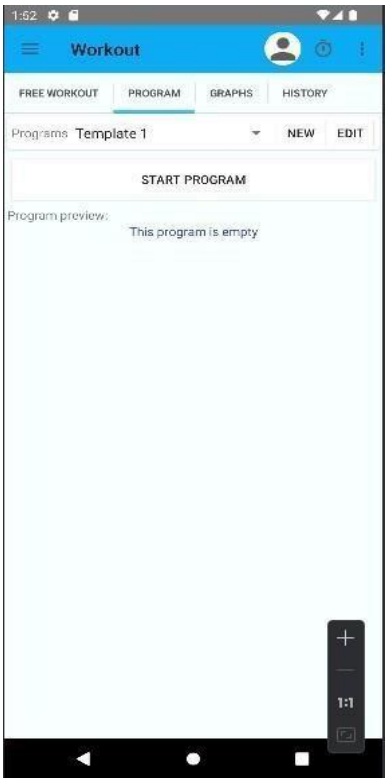
Dependencies/Libraries Used:

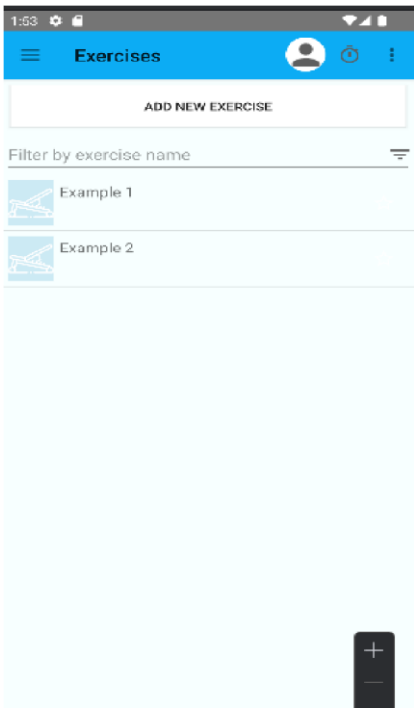
1. **Android Support Libraries**: For compatibility and UI elements.
2. **CircularImageView**: For displaying profile pictures in a circular format.
3. **KToast**: For displaying customized toast messages.
4. **SweetAlert**: For displaying customizable alert dialogs.
5. **SQLite**: For database management.
6. **MusicController**: A custom class for music control.
7. **ImageUtil**: A custom class for image handling.
8. **DateConverter**, **FileNameUtil**, **UnitConverter**: Custom utility class

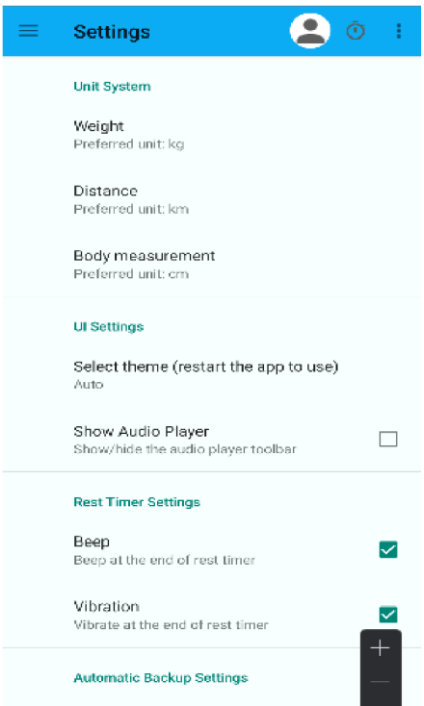
SCREEN SHOT (UI):

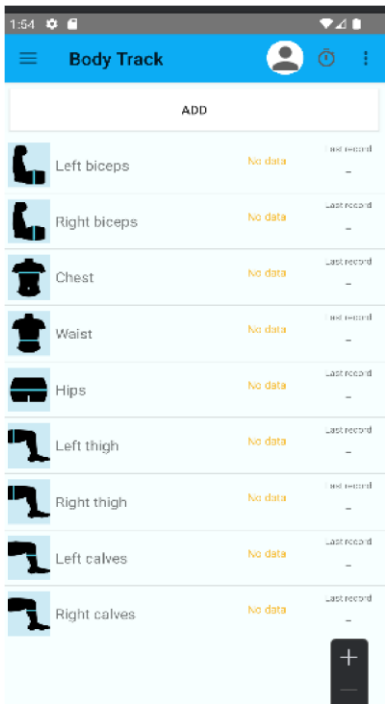

Settings
ali
Male
Your birthday
Your size

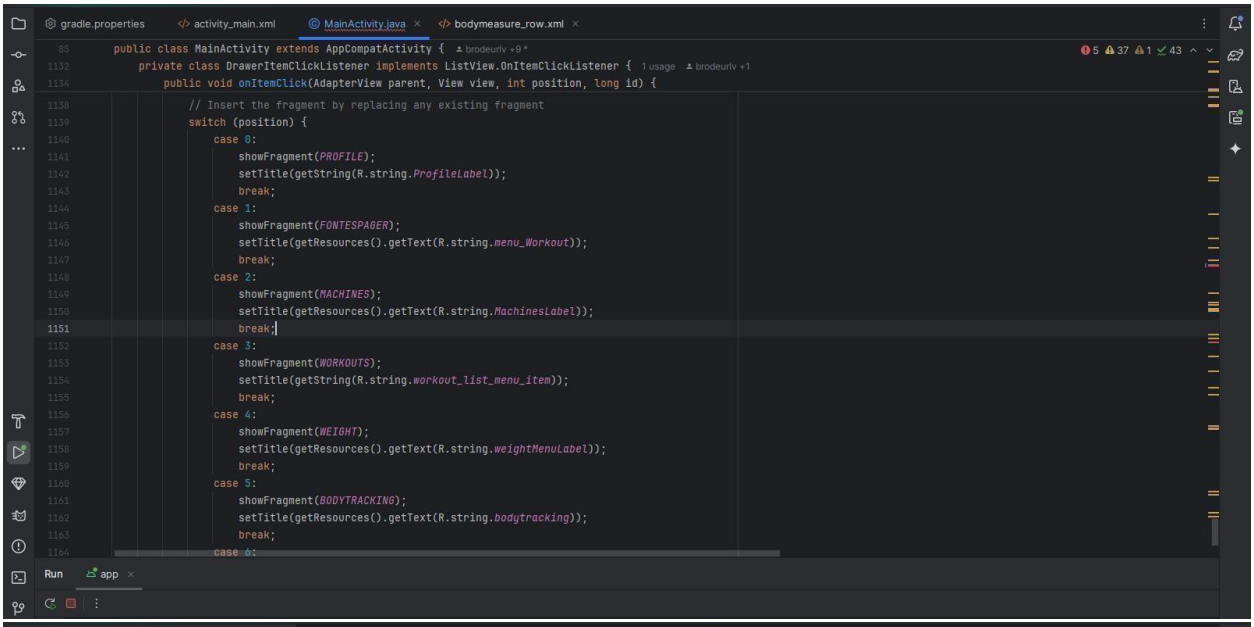

Weight Track
Weight
Fat
No data
DETAILS
Muscles
Water
Size
Index
BMI - no weight available
FFMI - no weight available
BMR - no weight available
Daily Cals - sedentary

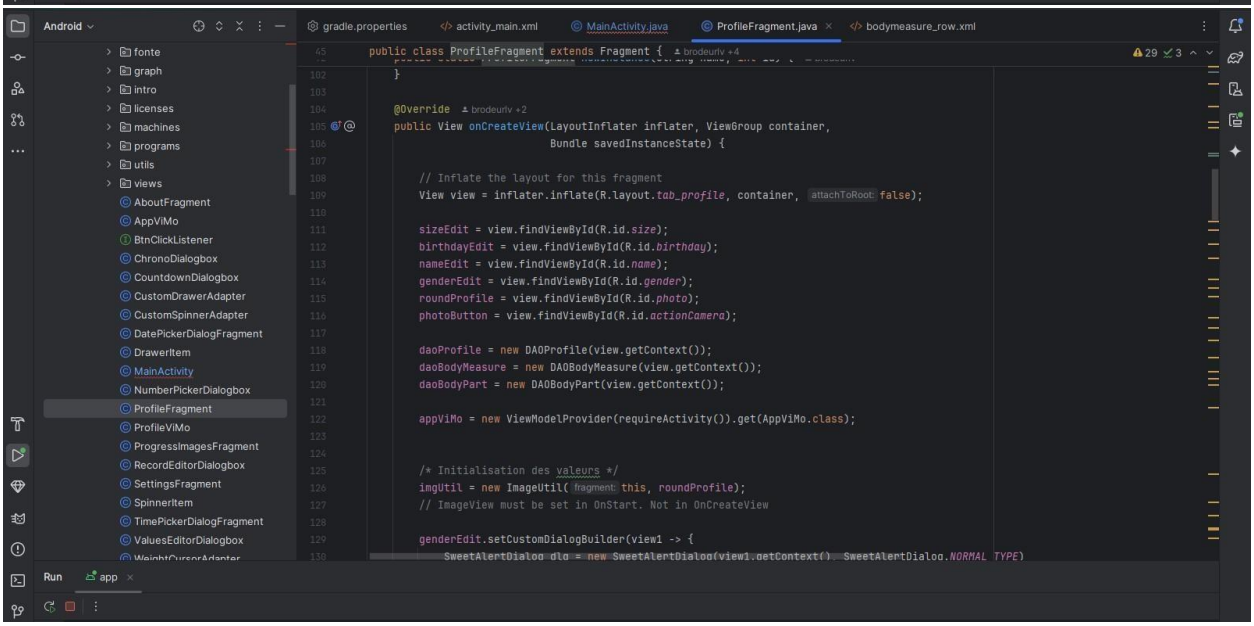

Workout
FREE WORKOUT
PROGRAM
GRAPHS
HISTORY
Programs Template 1
NEW
EDIT
START PROGRAM
Program preview:
This program is empty

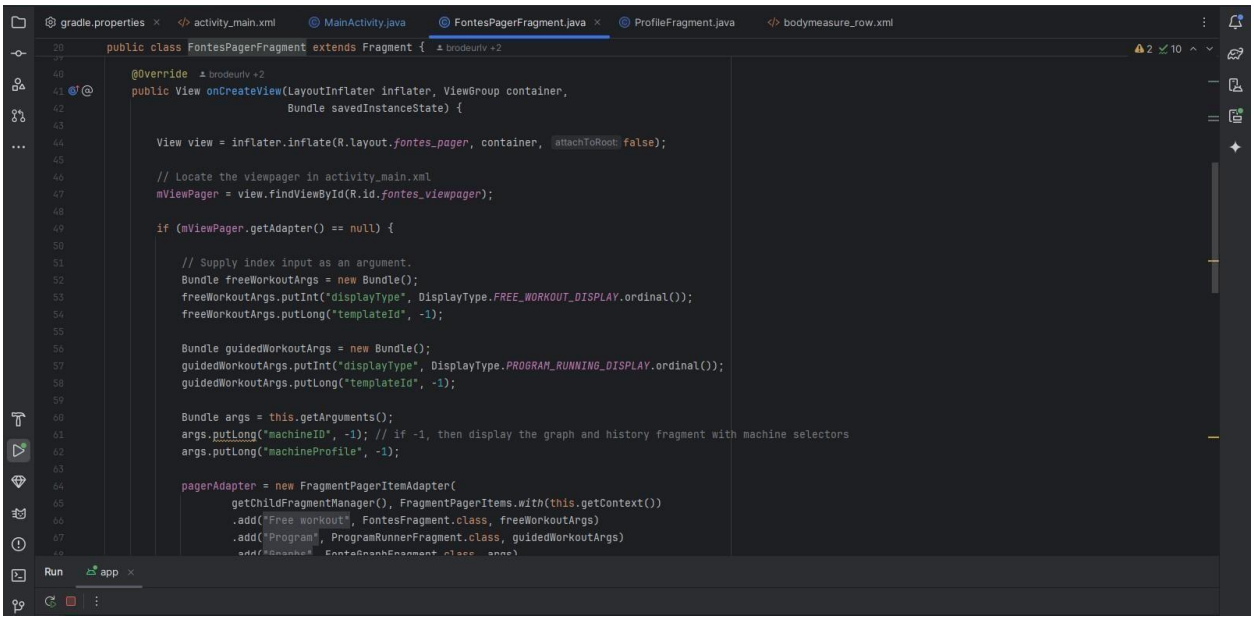

Exercises
ADD NEW EXERCISE
Filter by exercise name
Example 1
Example 2

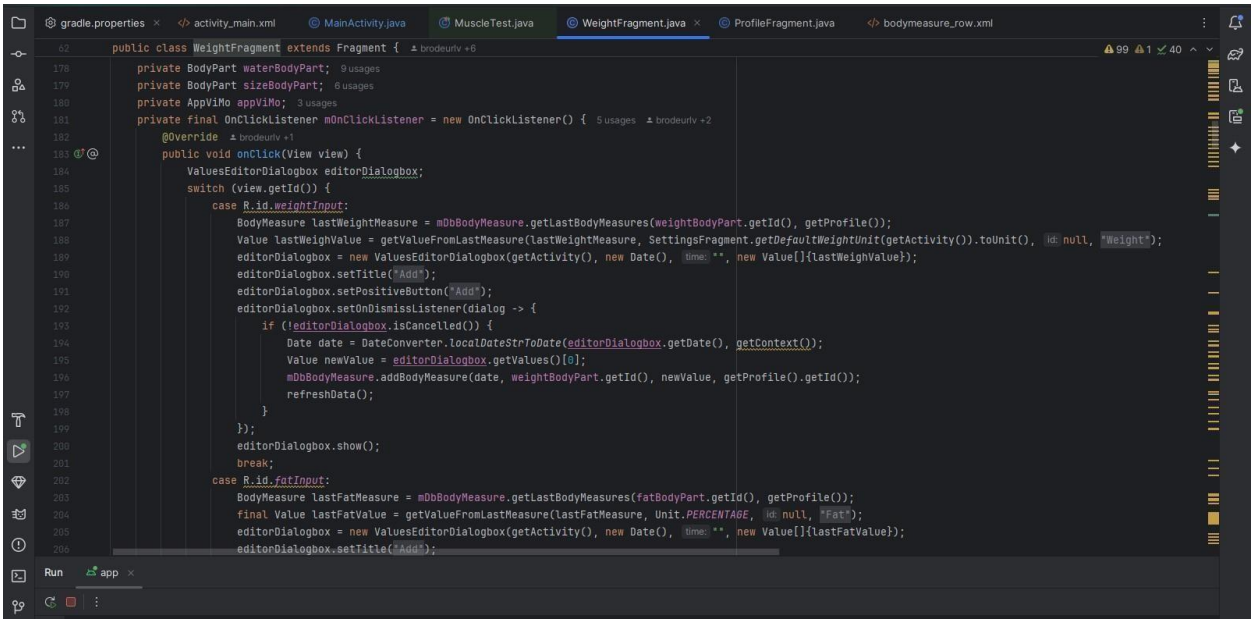

Settings
Unit System
Weight
Preferred unit: kg
Distance
Preferred unit: km
Body measurement
Preferred unit: cm
UI Settings
Select theme (restart the app to use)
Auto
Show Audio Player
Show/hide the audio player toolbar
Rest Timer Settings
Beep
Beep at the end of rest timer
Vibration
Vibrate at the end of rest timer
Automatic Backup Settings

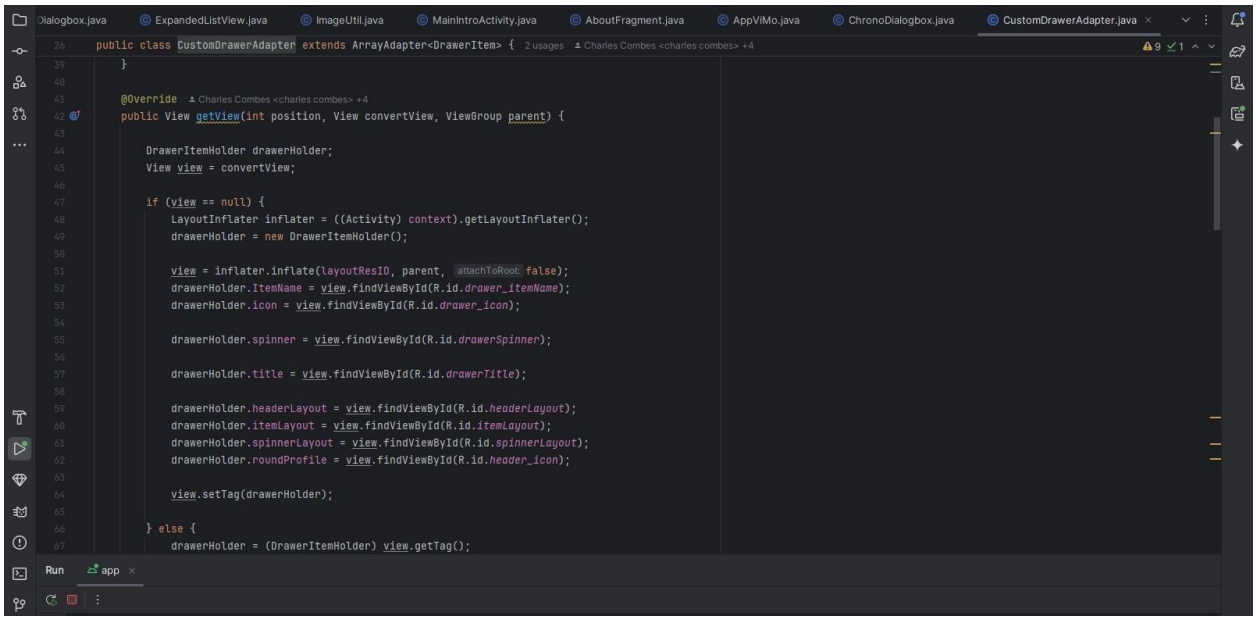

Body Track
ADD
Left biceps
Right biceps
Chest
Waist
Hips
Left thigh
Right thigh
Left calves
Right calves
No data


gradle.properties
activity_main.xml
MainActivity.java
bodymeasure_row.xml
public class MainActivity extends AppCompatActivity {
private class DrawerItemClickListener implements ListView.OnItemClickListener {
public void onItemClick(AdapterView parent, View view, int position, long id) {
// Insert the fragment by replacing any existing fragment
switch (position) {
case 0:
showFragment(PROFILE);
setTitle(getString(R.string.ProfileLabel));
break;
case 1:
showFragment(FONTESPAGER);
setTitle(getResources().getText(R.string.menu_Workout));
break;
case 2:
showFragment(MACHINES);
setTitle(getResources().getText(R.string.MachinesLabel));
break;
case 3:
showFragment(WORKOUTS);
setTitle(getString(R.string.workout_list_menu_item));
break;
case 4:
showFragment(WEIGHT);
setTitle(getResources().getText(R.string.weightMenuLabel));
break;
case 5:
showFragment(BODYTRACKING);
setTitle(getResources().getText(R.string.bodytracking));
break;
Run
app


Android
fonte
graph
intro
licenses
machines
programs
utils
views
AboutFragment
AppViMo
BtnClickListener
ChronoDialogbox
CountdownDialogbox
CustomDrawerAdapter
CustomSpinnerAdapter
DatePickerDialogFragment
DrawerItem
MainActivity
NumberPickerDialogbox
ProfileFragment
ProfileViMo
ProgressImagesFragment
RecordEditorDialogbox
SettingsFragment
SpinnerItem
TimePickerDialogFragment
ValuesEditorDialogbox
gradle.properties
activity_main.xml
MainActivity.java
ProfileFragment.java
bodymeasure_row.xml
public class ProfileFragment extends Fragment {
}
@Override
public View onCreateView(LayoutInflater inflater, ViewGroup container,
Bundle savedInstanceState) {
// Inflate the layout for this fragment
View view = inflater.inflate(R.layout.tab_profile, container, attachToRoot: false);
sizeEdit = view.findViewById(R.id.size);
birthdayEdit = view.findViewById(R.id.birthday);
nameEdit = view.findViewById(R.id.name);
genderEdit = view.findViewById(R.id.gender);
roundProfile = view.findViewById(R.id.photo);
photoButton = view.findViewById(R.id.actionCamera);
daoProfile = new DAOProfile(view.getContext());
daoBodyMeasure = new DAOBodyMeasure(view.getContext());
daoBodyPart = new DAOBodyPart(view.getContext());
appViMo = new ViewModelProvider(requireActivity()).get(AppViMo.class);
/* Initialisation des valeurs */
imgUtil = new ImageUtil(fragment: this, roundProfile);
// ImageView must be set in OnStart. Not in OnCreateView
genderEdit.setCustomDialogBuilder(view1 -> {
Run
app


gradle.properties
activity_main.xml
MainActivity.java
FontesPagerFragment.java
ProfileFragment.java
bodymeasure_row.xml
public class FontesPagerFragment extends Fragment {
brodeurlv +2
@Override
brodeurlv +2
public View onCreateView(LayoutInflater inflater, ViewGroup container,
Bundle savedInstanceState) {
View view = inflater.inflate(R.layout.fontes_pager, container, attachToRoot: false);
// Locate the viewpager in activity_main.xml
mViewPager = view.findViewById(R.id.fontes_viewpager);
if (mViewPager.getAdapter() == null) {
// Supply index input as an argument.
Bundle freeWorkoutArgs = new Bundle();
freeWorkoutArgs.putInt("displayType", DisplayType.FREE_WORKOUT_DISPLAY.ordinal());
freeWorkoutArgs.putLong("templateId", -1);
Bundle guidedWorkoutArgs = new Bundle();
guidedWorkoutArgs.putInt("displayType", DisplayType.PROGRAM_RUNNING_DISPLAY.ordinal());
guidedWorkoutArgs.putLong("templateId", -1);
Bundle args = this.getArguments();
args.putLong("machineID", -1); // if -1, then display the graph and history fragment with machine selectors
args.putLong("machineProfile", -1);
pagerAdapter = new FragmentPagerItemAdapter(
getChildFragmentManager(), FragmentPagerItems.with(this.getContext())
.add("Free workout", FontesFragment.class, freeWorkoutArgs)
.add("Program", ProgramRunnerFragment.class, guidedWorkoutArgs)
Run
app


gradle.properties
activity_main.xml
MainActivity.java
MuscleTest.java
WeightFragment.java
ProfileFragment.java
bodymeasure_row.xml
public class WeightFragment extends Fragment {
brodeurlv +6
private BodyPart waterBodyPart; 9 usages
private BodyPart sizeBodyPart; 6 usages
private AppViMo appViMo; 3 usages
private final OnClickListener mOnClickListener = new OnClickListener() { 5 usages brodeurlv +2
@Override
brodeurlv +1
public void onClick(View view) {
ValuesEditorDialogbox editorDialogbox;
switch (view.getId()) {
case R.id.weightInput:
BodyMeasure lastWeightMeasure = mDbBodyMeasure.getLastBodyMeasures(weightBodyPart.getId(), getProfile());
Value lastWeighValue = getValueFromLastMeasure(lastWeightMeasure, SettingsFragment.getDefaultWeightUnit(getActivity()).toUnit(), id: null, "Weight");
editorDialogbox = new ValuesEditorDialogbox(getActivity(), new Date(), time: "", new Value[]{lastWeighValue});
editorDialogbox.setTitle("Add");
editorDialogbox.setPositiveButton("Add");
editorDialogbox.setOnDismissListener(dialog -> {
if (!editorDialogbox.isCancelled()) {
Date date = DateConverter.localDateStrToDate(editorDialogbox.getDate(), getContext());
Value newValue = editorDialogbox.getValues()[0];
mDbBodyMeasure.addBodyMeasure(date, weightBodyPart.getId(), newValue, getProfile().getId());
refreshData();
}
});
editorDialogbox.show();
break;
case R.id.fatInput:
BodyMeasure lastFatMeasure = mDbBodyMeasure.getLastBodyMeasures(fatBodyPart.getId(), getProfile());
final Value lastFatValue = getValueFromLastMeasure(lastFatMeasure, Unit.PERCENTAGE, id: null, "Fat");
editorDialogbox = new ValuesEditorDialogbox(getActivity(), new Date(), time: "", new Value[]{lastFatValue});
editorDialogbox.setTitle("Add");
Run
app


DialogBox.java
ExpandedListView.java
ImageUtil.java
MainIntroActivity.java
AboutFragment.java
AppViMo.java
ChronoDialogbox.java
CustomDrawerAdapter.java
public class CustomDrawerAdapter extends ArrayAdapter<DrawerItem> { 2 usages Charles Combes <charles combes> +4
}
@Override Charles Combes <charles combes> +4
public View getView(int position, View convertView, ViewGroup parent) {
DrawerItemHolder drawerHolder;
View view = convertView;
if (view == null) {
LayoutInflater inflater = ((Activity) context).getLayoutInflater();
drawerHolder = new DrawerItemHolder();
view = inflater.inflate(layoutResID, parent, attachToRoot: false);
drawerHolder.ItemName = view.findViewById(R.id.drawer_itemName);
drawerHolder.icon = view.findViewById(R.id.drawer_icon);
drawerHolder.spinner = view.findViewById(R.id.drawerSpinner);
drawerHolder.title = view.findViewById(R.id.drawerTitle);
drawerHolder.headerLayout = view.findViewById(R.id.headerLayout);
drawerHolder.itemLayout = view.findViewById(R.id.itemLayout);
drawerHolder.spinnerLayout = view.findViewById(R.id.spinnerLayout);
drawerHolder.roundProfile = view.findViewById(R.id.header_icon);
view.setTag(drawerHolder);
} else {
drawerHolder = (DrawerItemHolder) view.getTag();
Run
app

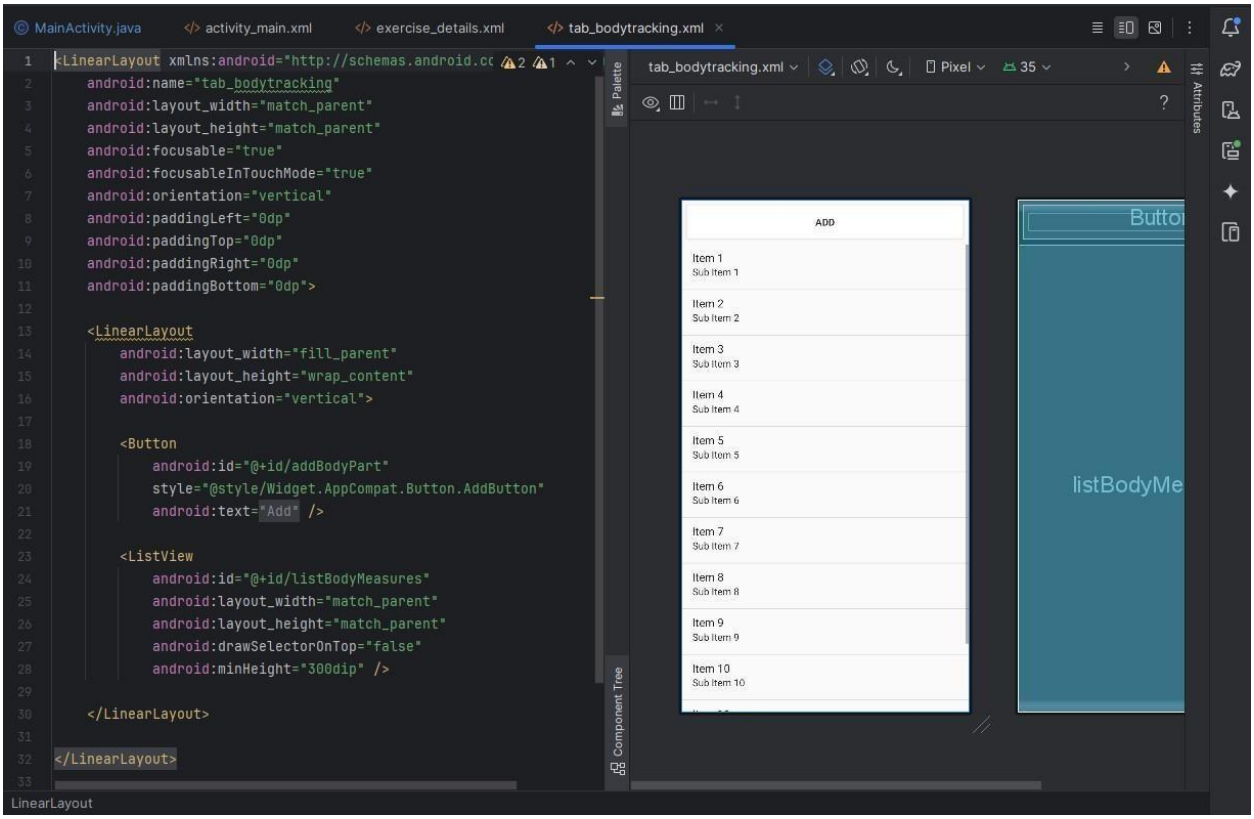
MainActivity.java | activity_main.xml

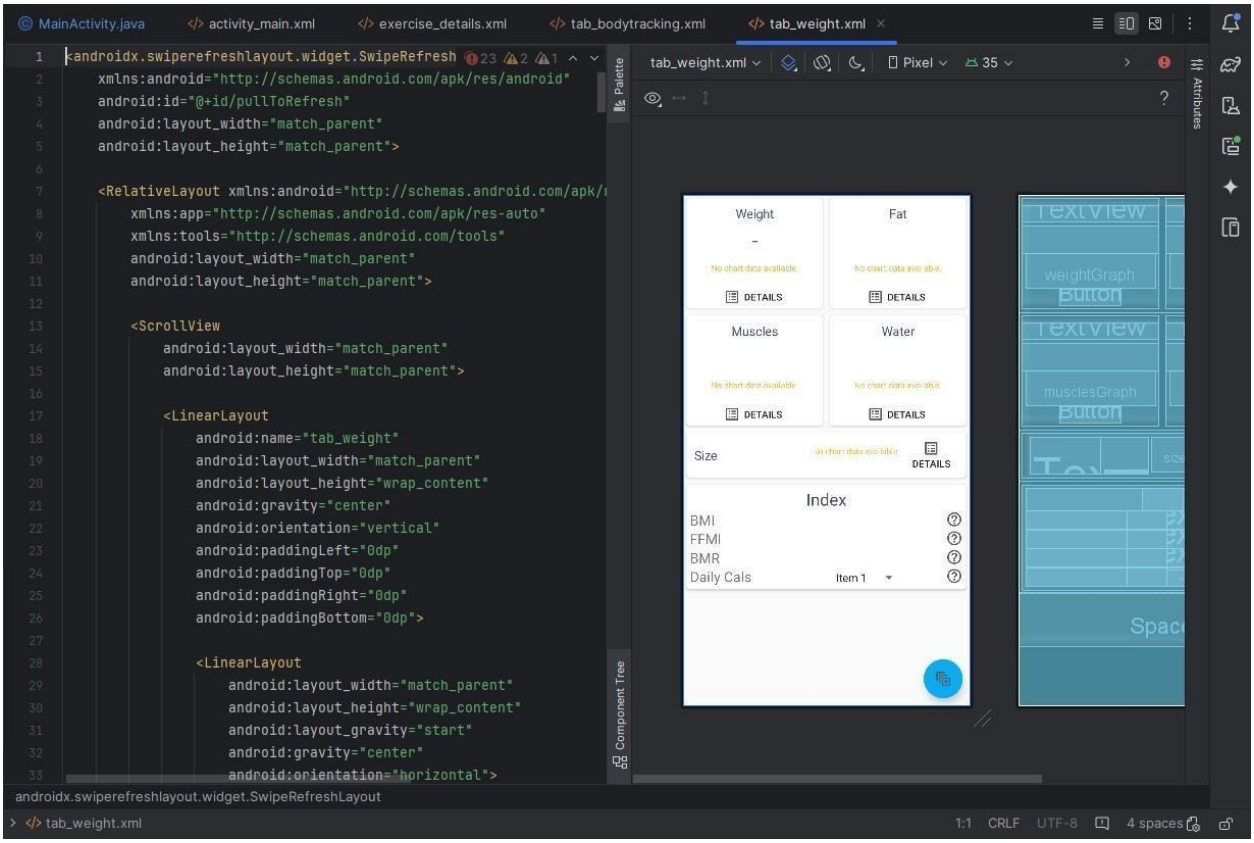
```xml
<androidx.drawerlayout.widget.DrawerLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/drawer_layout"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <!-- The main content view -->

    <RelativeLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:background="@color/background"
        android:focusableInTouchMode="true"
        android:orientation="vertical"
        android:paddingLeft="0dp"
        android:paddingTop="0dp"
        android:paddingRight="0dp"
        android:paddingBottom="0dp">

        <androidx.appcompat.widget.Toolbar
            android:id="@+id/actionToolbar"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:background="@color/toolbar_background"
            android:elevation="4dp"
            android:minHeight="?attr/actionBarSize"
            android:visibility="visible">

            <com.mikhaellopez.circularimageview.CircularImageView
                android:id="@+id/imageProfile"
                android:layout_width="40dp"
                android:layout_height="40dp"
```

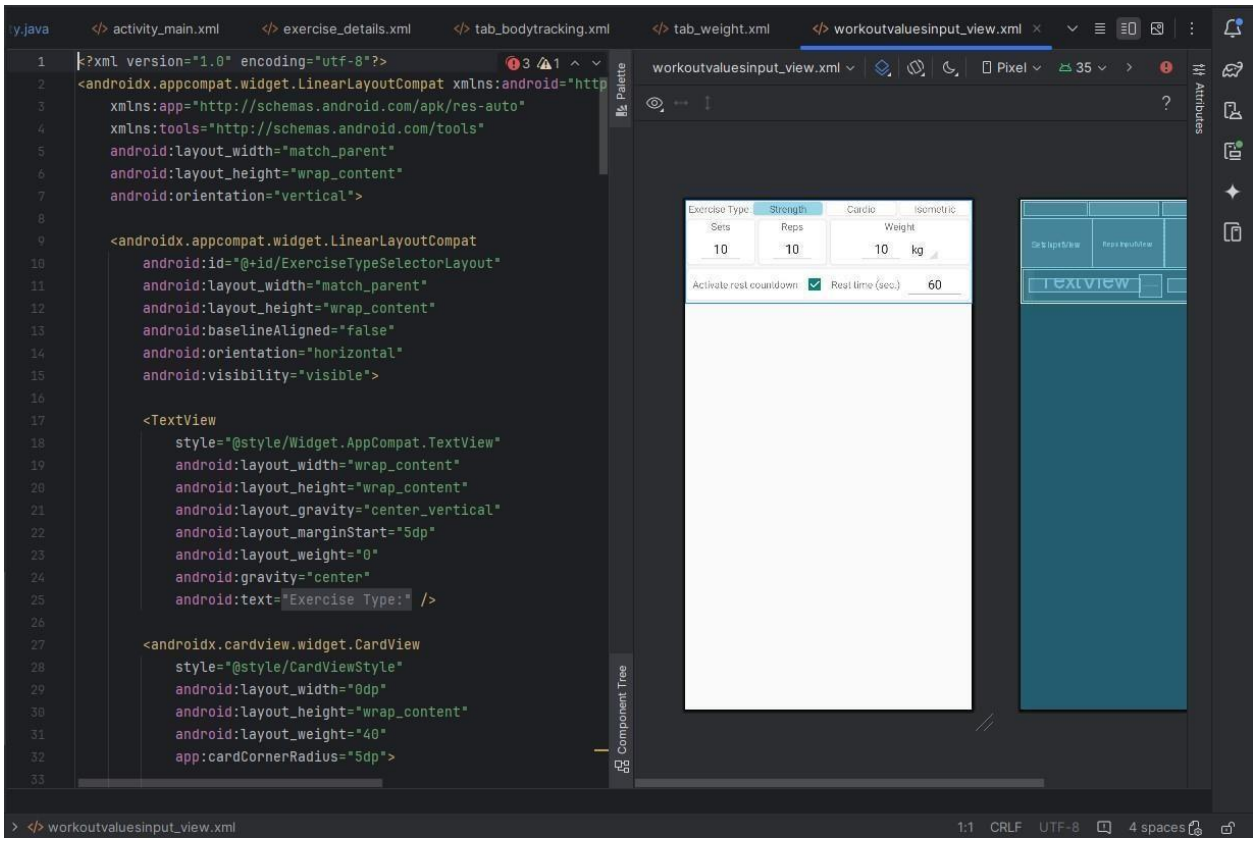
MainActivity.java | activity_main.xml | exercise_details.xml

```xml
<androidx.coordinatorlayout.widget.CoordinatorLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <androidx.core.widget.NestedScrollView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:paddingLeft="0dp"
        android:paddingTop="0dp"
        android:paddingRight="0dp"
        android:paddingBottom="0dp"
        app:layout_behavior="com.google.android.material.appbar.AppBarLayout$ScrollingViewBehavior">

        <LinearLayout
            android:id="@+id/machine_photo_layout"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:focusable="true"
            android:focusableInTouchMode="true"
            android:orientation="vertical"
            android:paddingLeft="0dp"
            android:paddingTop="0dp"
            android:paddingRight="0dp"
            android:paddingBottom="0dp">

            <ImageView
                android:id="@+id/machine_photo"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:adjustViewBounds="true"
                android:background="@color/record_background_even"
```

androidx.coordinatorlayout.widget.CoordinatorLayout


MainActivity.java
activity_main.xml
exercise_details.xml
tab_bodytracking.xml
<LinearLayout xmlns:android="http://schemas.android.co
android:name="tab_bodytracking"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:focusable="true"
android:focusableInTouchMode="true"
android:orientation="vertical"
android:paddingLeft="0dp"
android:paddingTop="0dp"
android:paddingRight="0dp"
android:paddingBottom="0dp">
<LinearLayout
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:orientation="vertical">
<Button
android:id="@+id/addBodyPart"
style="@style/Widget.AppCompat.Button.AddButton"
android:text="Add" />
<ListView
android:id="@+id/listBodyMeasures"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:drawSelectorOnTop="false"
android:minHeight="300dip" />
</LinearLayout>
</LinearLayout>
tab_bodytracking.xml
Pixel
35
ADD
Item 1
Sub Item 1
Item 2
Sub Item 2
Item 3
Sub Item 3
Item 4
Sub Item 4
Item 5
Sub Item 5
Item 6
Sub Item 6
Item 7
Sub Item 7
Item 8
Sub Item 8
Item 9
Sub Item 9
Item 10
Sub Item 10
Button
listBodyMe
Palette
Component Tree
Attributes
LinearLayout


MainActivity.java
activity_main.xml
exercise_details.xml
tab_bodytracking.xml
tab_weight.xml
<androidx.swiperefreshlayout.widget.SwipeRefresh
xmlns:android="http://schemas.android.com/apk/res/android"
android:id="@+id/pullToRefresh"
android:layout_width="match_parent"
android:layout_height="match_parent">
<RelativeLayout xmlns:android="http://schemas.android.com/apk/
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent">
<ScrollView
android:layout_width="match_parent"
android:layout_height="match_parent">
<LinearLayout
android:name="tab_weight"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:gravity="center"
android:orientation="vertical"
android:paddingLeft="0dp"
android:paddingTop="0dp"
android:paddingRight="0dp"
android:paddingBottom="0dp">
<LinearLayout
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_gravity="start"
android:gravity="center"
android:orientation="horizontal">
tab_weight.xml
Pixel
35
Weight
Fat
DETAILS
Muscles
Water
Size
Index
BMI
FFMI
BMR
Daily Cals
Item 1
TextView
weightGraph
Button
musclesGraph
Palette
Component Tree
Attributes
androidx.swiperefreshlayout.widget.SwipeRefreshLayout
tab_weight.xml
1:1
CRLF
UTF-8
4 spaces


y.java
activity_main.xml
exercise_details.xml
tab_bodytracking.xml
tab_weight.xml
workoutvaluesinput_view.xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.appcompat.widget.LinearLayoutCompat xmlns:android="http
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:orientation="vertical">
<androidx.appcompat.widget.LinearLayoutCompat
android:id="@+id/ExerciseTypeSelectorLayout"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:baselineAligned="false"
android:orientation="horizontal"
android:visibility="visible">
<TextView
style="@style/Widget.AppCompat.TextView"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_gravity="center_vertical"
android:layout_marginStart="5dp"
android:layout_weight="0"
android:gravity="center"
android:text="Exercise Type:" />
<androidx.cardview.widget.CardView
style="@style/CardViewStyle"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_weight="40"
app:cardCornerRadius="5dp">
Palette
Component Tree
Attributes
Pixel
35
Exercise Type:
Strength
Cardio
Isometric
Sets
Reps
Weight
10
10
10
kg
Activate rest countdown
Rest time (sec.)
60
TextView
workoutvaluesinput_view.xml
1:1
CRLF
UTF-8
4 spaces