FIT-O-CRAZY

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ABSTRACT

Nowadays, fitness is the main issue faced by the people.
Due to the hectic schedule and busy life people are not able to concentrate on their fitness and thus the number of unfit people is increasing day by day. They don't know what they should eat according to their weight, height and age , most of the people are not aware about what exercise they should do to stay fit according to their age that sometimes may lead to even worse scenario.
So, keeping this issue in mind our team has decided to collaborate fitness and technology together and getting something that is beneficial out of it.
Technology is the most trending thing nowadays and so thus the Android applications. So, we are developing an android app in which we can suggest people what they should eat (basically the proper diet chart) and what exercises they should perform according to their weight, height and age. Making people to stay fit by being at home and it will be also suitable for their hectic life.

Keyword : - *Fitness,Nutrition,android,databse,exercises,yoga,lifestyle,BMI*

1. INTRODUCTION

Android application provides a rich framework that allows you to build innovative apps for the mobile devices in a java language platform. Android apps are built as a combination of distinct components that can be invoked individually. For instance, an individual activity provides a single screen for user interface, and a service independently performs work in the background. Android app can be made by using any current issue and need for the people. Combining the need and technology together we can help out people in different ways. The android application can be connected to the database to make it more effective.

2. LOGIN PAGE

The login page will be the main page of the application where it will ask for the login credentials from the user.
If the user is new to the application then the application will ask the user to sign up and fill in the details like email address, password, age, height and weight.
If all these details are filled then the user is signed in.
If user is already signed in then he/she has to login with its email id and password.
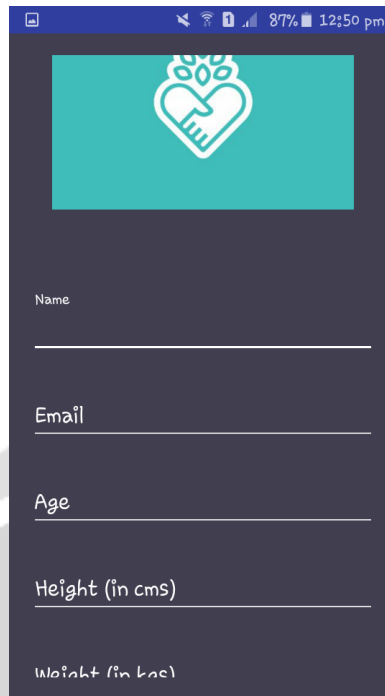
Fig 1:-login page for the application

2.1 code for the login page

```
package com.example.reumaakhtar.fit_o_crazy.activities;

import android.content.Intent;
import android.os.Bundle;
import android.support.design.widget.Snackbar;
import android.support.design.widget.TextInputEditText;
import android.support.design.widget.TextInputLayout;
import android.support.v4.widget.NestedScrollView;
import android.support.v7.app.AppCompatActivity;
import android.support.v7.widget.AppCompatButton;
import android.support.v7.widget.AppCompatTextView;
import android.util.Log;
import android.view.View;
import com.example.reumaakhtar.fit_o_crazy.R;
import com.example.reumaakhtar.fit_o_crazy.helpers.InputValidation;
import com.example.reumaakhtar.fit_o_crazy.sql.DatabaseHelper;

public class LoginActivity extends AppCompatActivity implements View.OnClickListener {
    private final AppCompatActivity activity = LoginActivity.this;

    private NestedScrollView nestedScrollView;

    private TextInputLayout textInputLayoutEmail;
    private TextInputLayout textInputLayoutPassword;

    private TextInputEditText textInputEditTextEmail;
    private TextInputEditText textInputEditTextPassword;

    private AppCompatButton appCompatButtonLogin;

    private AppCompatTextView textViewLinkRegister;
```

```java
    private InputValidation inputValidation;
    private DatabaseHelper databaseHelper;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);
        getSupportActionBar().hide();

        initViews();
        initListeners();
        initObjects();
    }
    private void initViews() {

        nestedScrollView = (NestedScrollView) findViewById(R.id.nestedScrollView);

        textInputLayoutEmail = (TextInputLayout) findViewById(R.id.textInputLayoutEmail);
        textInputLayoutPassword = (TextInputLayout) findViewById(R.id.textInputLayoutPassword);

        textInputEditTextEmail = (TextInputEditText) findViewById(R.id.textInputEditTextEmail);
        textInputEditTextPassword = (TextInputEditText) findViewById(R.id.textInputEditTextPassword);

        appCompatButtonLogin = (AppCompatButton) findViewById(R.id.appCompatButtonLogin);

        textViewLinkRegister = (AppCompatTextView) findViewById(R.id.textViewLinkRegister);

    }
    private void initListeners() {
        appCompatButtonLogin.setOnClickListener(this);
        textViewLinkRegister.setOnClickListener(this);
    }
    private void initObjects() {
        databaseHelper = new DatabaseHelper(activity);
        inputValidation = new InputValidation(activity);

    }
    @Override
    public void onClick(View v) {
        switch (v.getId()) {
            case R.id.appCompatButtonLogin:
                verifyFromSQLite();
                break;
            case R.id.textViewLinkRegister:
                // Navigate to RegisterActivity
                Intent intentRegister = new Intent(getApplicationContext(), RegisterActivity.class);
                startActivity(intentRegister);
                break;
        }
    }
    private void verifyFromSQLite() {
        if          (!inputValidation.isInputEditTextFilled(textInputEditTextEmail,          textInputLayoutEmail,
getString(R.string.error_message_email))) {
            return;
        }
```

```
        if           (!inputValidation.isInputEditTextEmail(textInputEditTextEmail,          textInputLayoutEmail,
getString(R.string.error_message_email))) {
            return;
        }
        if          (!inputValidation.isInputEditTextFilled(textInputEditTextPassword,        textInputLayoutPassword,
getString(R.string.error_message_password))) {
            return;
        }

    if (databaseHelper.checkUser(textInputEditTextEmail.getText().toString().trim()
          , textInputEditTextPassword.getText().toString().trim())) {


        Intent accountsIntent = new Intent(activity, UsersListActivity.class);
        accountsIntent.putExtra("EMAIL", textInputEditTextEmail.getText().toString().trim());
        emptyInputEditText();
        startActivity(accountsIntent);


    } else {
        Snackbar.make(nestedScrollView,                                    getString(R.string.error_valid_email_password),
Snackbar.LENGTH_LONG).show();
    }
  }
  private void emptyInputEditText() {
    textInputEditTextEmail.setText(null);
    textInputEditTextPassword.setText(null);
  }
}
```

3. BMI
The second activity for the application will be checking the BMI of the person who just logged in the app.
It will provide diet plan, exercises and lifestyle according to the BMI. The BMI will be characterized into 3:
1. Underweight
2. Normal
3. Overweight
Now, user have choices to select options one by one and work on themselves accordingly to make themselves
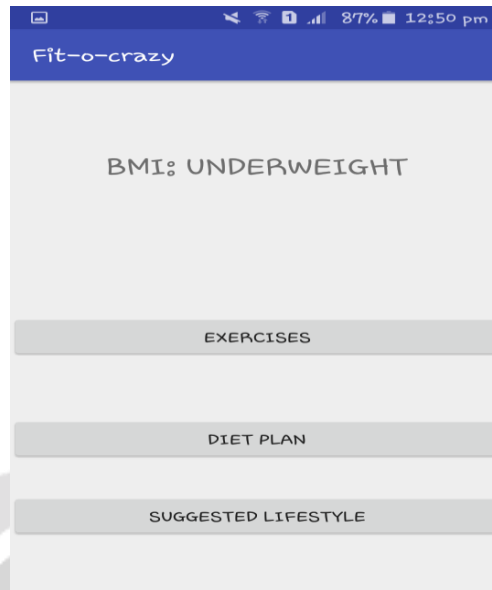healthy with proper diet plan, exercises and lifestyles.

Fig 2:- BMI page

4. EXERCISES

According to the BMI obtained by user the exercises will be provided. The exercises can be either to gain weight, loose weight or maintaining the normal weight if your BMI is normal.
The activities in the app will have all the exercises with steps so it becomes easy for the user to follow it with some pictures. It will also have proper postures to be followed during the exercise that makes it more efficient for the user

4.1. To gain weight

If the BMI of the user is underweight then he/she need to put on weight for health reasons. So, exercises to gain weight will be provided by the app. In which proper steps and methods will be given with pictures to do on regular basis. These exercises are strongly recommended by the dieticians and physicians for gaining of weight.

4.2. To loose weight

If the BMI of the user is overweight then different exercises will be provided to user that are strongly recommended by the physician for different body parts.
The body parts whose exercises are given for reduction of fats are :
1. Hipfat
2. Bellyfat
3. Arm fat
The code for the same is given below:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
  tools:context="com.example.reumaakhtar.fit_o_crazy.hipfat">
<ScrollView
android:layout_width="match_parent"
android:layout_height="wrap_content">
<LinearLayout
   android:layout_width="match_parent"
   android:layout_height="wrap_content"
   android:orientation="vertical">
```

```xml
<LinearLayout
        android:layout_width="match_parent"
        android:layout_height="250dp"
        android:background="@drawable/bicycle"
        android:orientation="vertical">

</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical">
    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="BICYCLE EXERCISE:"
        android:textStyle="bold"
        android:textSize="20dp"
        android:layout_marginTop="20dp"/>

    <TextView
        android:id="@+id/textView1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="1. Lie on the floor and keep your hands either by your sides or behind your head as you
do in crunches."
        android:layout_marginTop="10dp"
        android:textSize="17dp"/>

    <TextView
        android:id="@+id/textView2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="2. Lift both your legs off the ground and bend them at the knees."
        android:layout_marginTop="5dp"
        android:textSize="17dp"
        />

    <TextView
        android:id="@+id/textView3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="3.        Bring your right knee close to your chest, keeping your left leg away."
        android:layout_marginTop="5dp"
        android:textSize="17dp"/>

    <TextView
        android:id="@+id/textView4"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="4. Now take your right leg away and bring your left leg close to your chest."
        android:layout_marginTop="5dp"
        android:textSize="17dp"
        />
    <TextView
        android:id="@+id/textView5"
```

```
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="5. Keep doing this as of you are paddling a bicycle. "
            android:layout_marginTop="5dp"
            android:textSize="17dp"
            />

        <TextView
            android:id="@+id/textView6"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="6. Repeat another 2 or 3 sets."
            android:layout_marginTop="5dp"
            android:textSize="17dp"
        </LinearLayout>
    </LinearLayout>

  </ScrollView>

    </RelativeLayout>
```
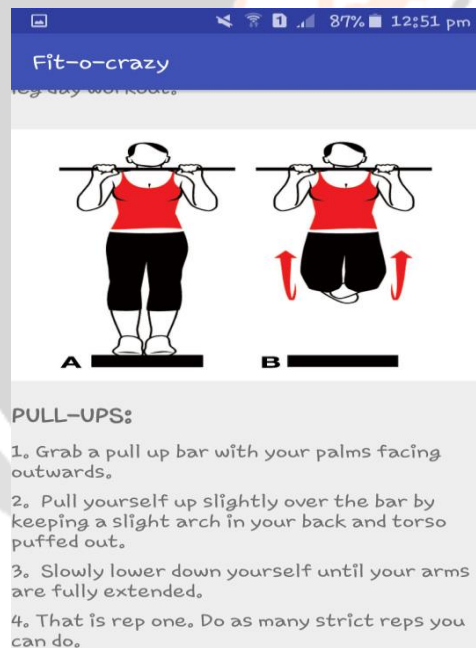

Fig 3:-exercise page for loosing weight

5. DIET PLAN
The diet plan of the application offers what to eat and avoid in food during the day and night.
Food is the main factor for keeping oneself healthy and fit and fine. The amount of nutrition that is required in a day is also an essential factor to be kept in mind.
Considering all these factors in mind the application came with diet plan which tells the user what to eat in the breakfast, lunch, snacks and dinner according to the age.
As age grows the requirement for the body also changes so the things are kept in mind and with all the researches the diet plan is made accordingly and it also tells us what to avoid at what age to stay healthy and fit.
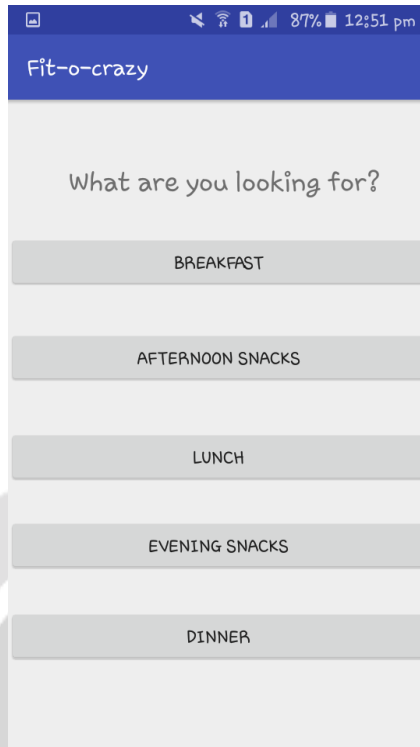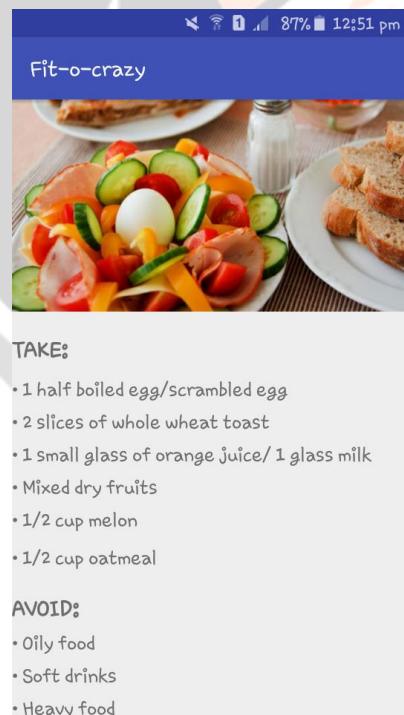
Fig 4:-diet plan page

fig 5:-breakfast

6. SUGGESTED LIFESTYLES

Only healthy diet plan and exercises are not enough to keep an individual fit and healthy, the other thing that is essential is the healthy lifestyle.

Healthy lifestyles are the mandatory factor for keeping oneself fit. So, the application offers suggested lifestyles for the teenagers that is how they should study, when should they sleep and what they should eat.

For old people what should they do to keep themselves safe from diseases and weak bone, eyesight problems and pain in joints.

The code for the lifestyle is:

```xml
<?xml version="1.0" encoding="utf-8"?>

<RelativeLayout 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"

 tools:context="com.example.reumaakhtar.fit_o_crazy.teenlifestyle">

 <ScrollView

 android:layout_width="match_parent"

 android:layout_height="wrap_content">


 <LinearLayout

  android:layout_width="match_parent"

  android:layout_height="wrap_content"

  android:orientation="vertical">

 <TextView

  android:id="@+id/textView"

  android:layout_width="match_parent"

  android:layout_height="wrap_content"

  android:text="LIFESTYLE FOR TEENAGERS:"

  android:textStyle="bold"

  android:textSize="23dp"

  android:layout_marginTop="25dp"/>
```

```
<TextView

android:id="@+id/textView1"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:text="&#8226; Exercise daily"

android:layout_marginTop="19dp"

android:textSize="19dp"/>


<TextView

android:id="@+id/textView2"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:text="&#8226; Drink plenty of fluids"

android:layout_marginTop="7dp"

android:textSize="19dp"

/>


<TextView

android:id="@+id/textView3"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:text="&#8226; Avoid skipping meals"

android:layout_marginTop="7dp"

android:textSize="19dp"/>


<TextView

android:id="@+id/textView4"

android:layout_width="match_parent"

android:layout_height="wrap_content"
```

```
android:text="&#8226; Give up on unhealthy snacks"

android:layout_marginTop="7dp"

android:textSize="19dp"

/>


<TextView

android:id="@+id/textView5"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:text="&#8226; Make a proper diet plan"

android:layout_marginTop="7dp"

android:textSize="19dp"/>

<TextView

android:id="@+id/textView6"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:text="&#8226; Cut back on fats"

android:layout_marginTop="7dp"

android:textSize="19dp"/>


<TextView

android:id="@+id/textView8"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:text="&#8226; Don't take too much of stress"

android:layout_marginTop="7dp"

android:textSize="19dp"

/>
```

```
<TextView

android:id="@+id/textView9"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:text="&#8226; Be aware of how much you are eating"

android:layout_marginTop="7dp"

android:textSize="19dp"/>


<TextView

android:id="@+id/textView10"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:text="&#8226; Don't follow low carb diets"

android:layout_marginTop="7dp"

android:textSize="19dp"

/>
<TextView

android:id="@+id/textView11"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:text="&#8226; Eat fewer sweets/sugary drinks"

android:layout_marginTop="7dp"

android:textSize="19dp"

/>
</LinearLayout>

</ScrollView>

</RelativeLayout>
```

7. CONCLUSIONS

Fitness being the biggest issue nowadays we came with the research and idea for building an application that provides all the factors that provides an individual with proper diet plan, exercises and lifestyles according to the age, height and weight of the user. its is very useful and the diet plans given are being consulted and recommended by the dieticians and the exercises are cross checked by the physician.

6. REFERENCES

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