**Hybrid Application Development Lab Assignment - 5**

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Subject : Hybrid Application Development Lab

**5. Database program**

Code:

**MainActivity.java :**

package com.example.my\_database\_application;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

import android.database.Cursor;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

EditText name, contact, age;

Button insert, update, delete, view;

DBHelper DB;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_main*);

name = findViewById(R.id.*name*);

contact = findViewById(R.id.*contact*);

age = findViewById(R.id.*age*);

insert = findViewById(R.id.*insert*);

update = findViewById(R.id.*update*);

delete = findViewById(R.id.*delete*);

view = findViewById(R.id.*view*);

DB = new DBHelper(this);

insert.setOnClickListener(new View.OnClickListener(){

@Override

public void onClick(View v){

String nameTXT = name.getText().toString();

String contactTXT = contact.getText().toString();

String ageTXT = age.getText().toString();

boolean qrystatus = DB.insertdata(nameTXT,contactTXT,ageTXT);

if(qrystatus==true)

{

Toast.*makeText*(MainActivity.this,"New Record Created",Toast.*LENGTH\_SHORT*).show();

}

else Toast.*makeText*(MainActivity.this,"New Record Creation failed",Toast.*LENGTH\_SHORT*).show();

}

});

update.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String nameTXT = name.getText().toString();

String contactTXT = contact.getText().toString();

String ageTXT = age.getText().toString();

boolean qryStatus = DB.updateData(nameTXT,contactTXT,ageTXT);

if(qryStatus==true)

Toast.*makeText*(MainActivity.this,"Record updated",Toast.*LENGTH\_SHORT*).show();

else

Toast.*makeText*(MainActivity.this,"Record updation failed",Toast.*LENGTH\_SHORT*).show();

}

});

delete.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String nameTXT = name.getText().toString();

boolean qryStatus = DB.deleteData(nameTXT);

if(qryStatus==true)

Toast.*makeText*(MainActivity.this,"Record Deleted",Toast.*LENGTH\_SHORT*).show();

else

Toast.*makeText*(MainActivity.this,"Record Deletion failed",Toast.*LENGTH\_SHORT*).show();

}

});

view.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

Cursor res = DB.viewData();

if(res.getCount() == 0)

Toast.*makeText*(MainActivity.this,"No record exist",Toast.*LENGTH\_SHORT*).show();

else{

StringBuffer buffer = new StringBuffer();

while(res.moveToNext()){

buffer.append("name :"+res.getString(0)+"\n");

buffer.append("contact :"+res.getString(1)+"\n");

buffer.append("age :"+res.getString(2)+"\n");

}

AlertDialog.Builder builder = new AlertDialog.Builder(MainActivity.this);

builder.setCancelable(true);

builder.setTitle("User Data");

builder.setMessage(buffer.toString());

builder.show();

}

}

});

}

}

**DBHelper.java :**

package com.example.my\_database\_application;

import android.content.ContentValues;

import android.content.Context;

import android.database.Cursor;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

import androidx.annotation.Nullable;

public class DBHelper extends SQLiteOpenHelper {

public DBHelper(@Nullable Context context){

super(context, "userdata.db",null,1);

}

@Override

public void onCreate(SQLiteDatabase db) {

db.execSQL("create Table Userdetails(name TEXT primary key,contact TEXT, age TEXT)");

}

@Override

public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {

db.execSQL("drop Table if exists Userdetails");

}

public boolean insertdata(String name,String contact, String age){

SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

contentValues.put("name",name);

contentValues.put("contact",contact);

contentValues.put("age",age);

long result = db.insert("Userdetails",null,contentValues);

if(result == -1)

return false;

else return true;

}

public boolean updateData(String name,String contact,String age){

SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

contentValues.put("contact",contact);

contentValues.put("age",age);

Cursor cursor = db.rawQuery("Select \* from Userdetails where name=?",new String[]{name});

if(cursor.getCount()>0)

{

long result = db.update("Userdetails",contentValues,"name=?",new String[]{name});

if(result==-1)

return false;

else return true;

}else return false;

}

public boolean deleteData(String name){

SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

Cursor cursor = db.rawQuery("Select \* from Userdetails where name=?",new String[]{name});

if(cursor.getCount()>0){

long result = db.delete("Userdetails","name=?",new String[]{name});

if(result==-1)

return false;

else return true;

}else return false;

}

public Cursor viewData(){

SQLiteDatabase db = this.getReadableDatabase();

Cursor cursor = db.rawQuery("select \* from Userdetails",null);

return cursor;

}

}

**activity\_main.xml :**

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

<androidx.constraintlayout.widget.ConstraintLayout 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=".MainActivity">

<EditText

android:id="@+id/name"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="84dp"

android:layout\_marginEnd="128dp"

android:ems="10"

android:hint="Enter the Name"

android:inputType="textPersonName"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<EditText

android:id="@+id/contact"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="188dp"

android:layout\_marginEnd="132dp"

android:ems="10"

android:hint="Enter the contact no"

android:inputType="textPersonName"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<EditText

android:id="@+id/age"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="308dp"

android:layout\_marginEnd="128dp"

android:ems="10"

android:hint="Enter the Age"

android:inputType="textPersonName"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<TextView

android:id="@+id/textView2"

android:layout\_width="107dp"

android:layout\_height="26dp"

android:layout\_marginTop="56dp"

android:layout\_marginEnd="232dp"

android:text="Name :"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<TextView

android:id="@+id/textView3"

android:layout\_width="110dp"

android:layout\_height="33dp"

android:layout\_marginTop="152dp"

android:layout\_marginEnd="228dp"

android:text="Contact :"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<TextView

android:id="@+id/textView4"

android:layout\_width="93dp"

android:layout\_height="26dp"

android:layout\_marginTop="268dp"

android:layout\_marginEnd="240dp"

android:text="Age :"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:id="@+id/insert"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="48dp"

android:layout\_marginEnd="248dp"

android:text="Insert"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/age" />

<Button

android:id="@+id/update"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="48dp"

android:layout\_marginEnd="104dp"

android:text="Update"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/age" />

<Button

android:id="@+id/delete"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="56dp"

android:layout\_marginEnd="244dp"

android:text="Delete"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/insert" />

<Button

android:id="@+id/view"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="56dp"

android:layout\_marginEnd="100dp"

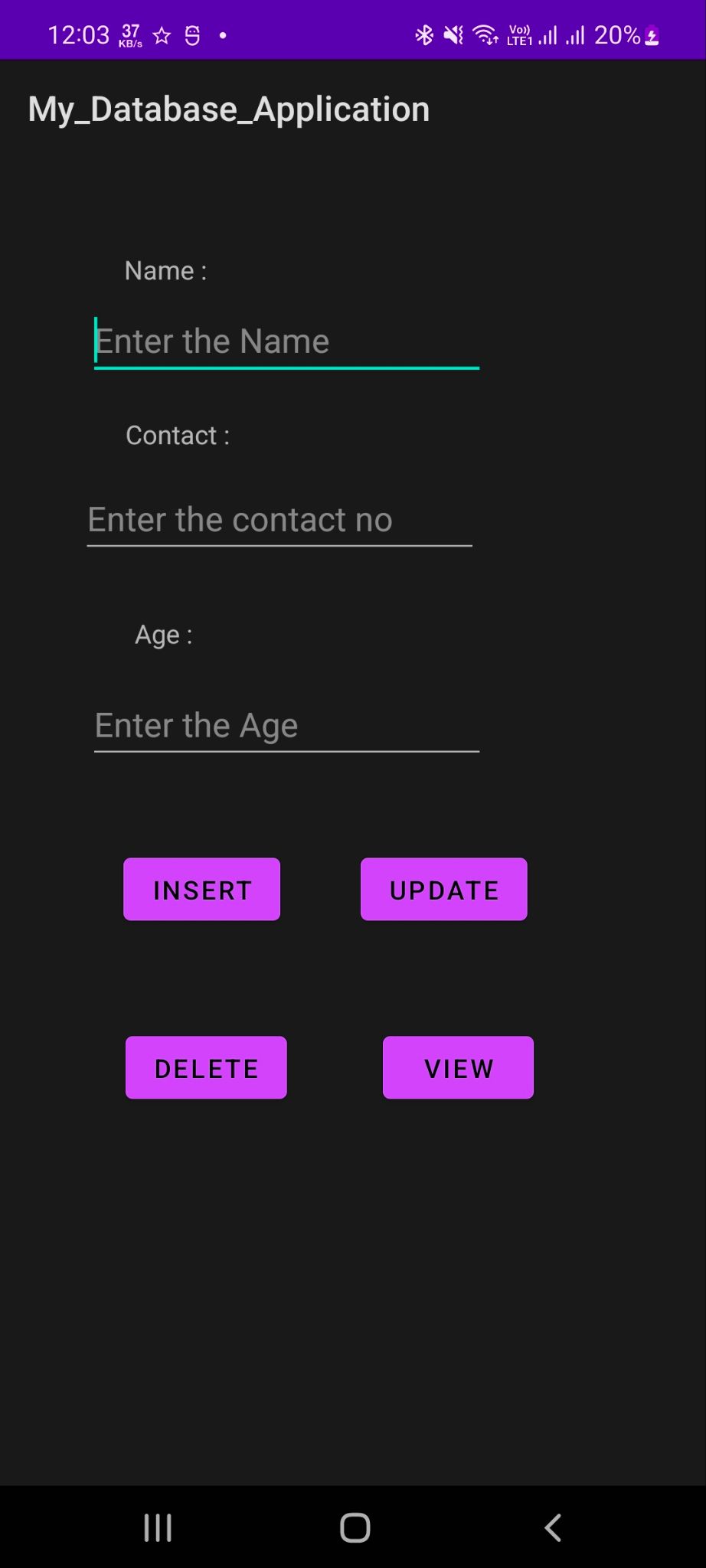
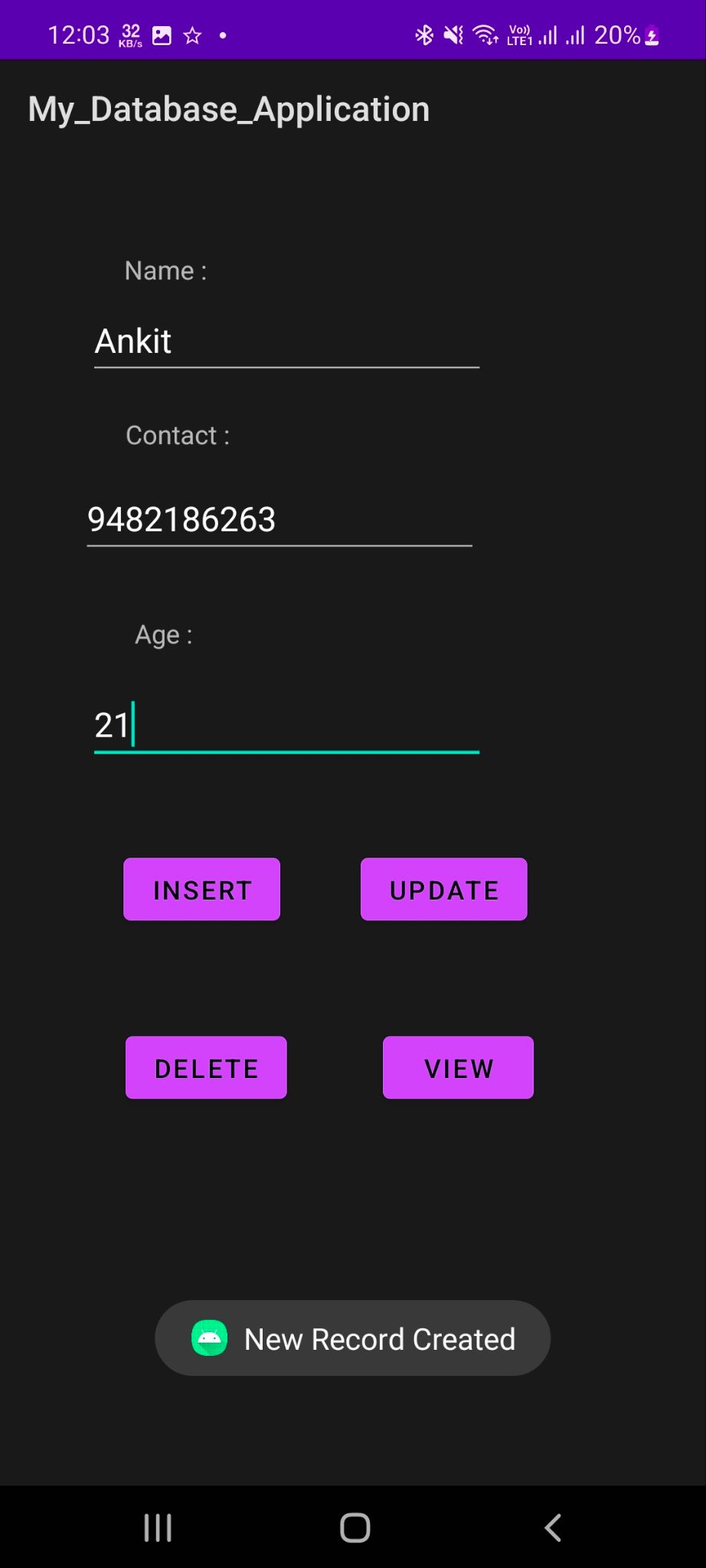
android:text="View"

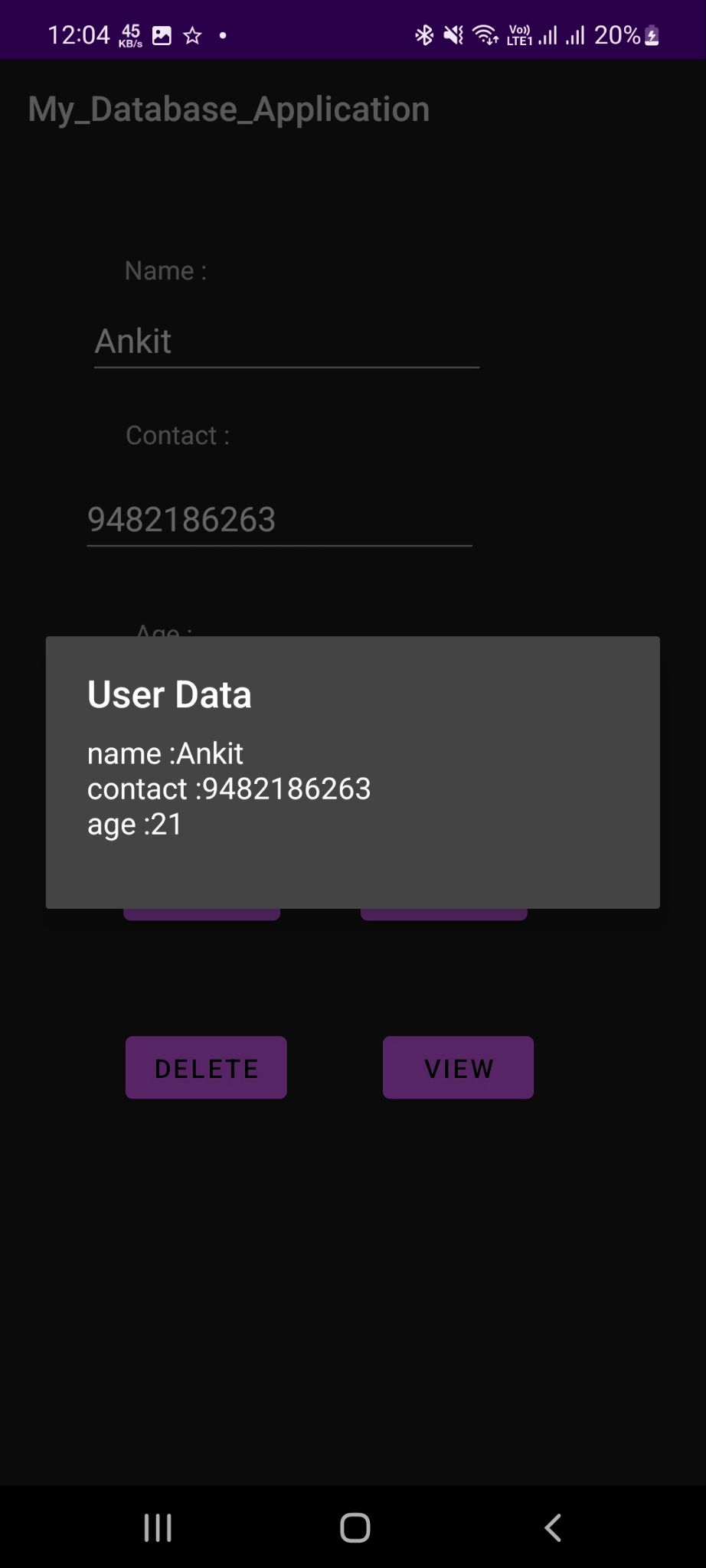
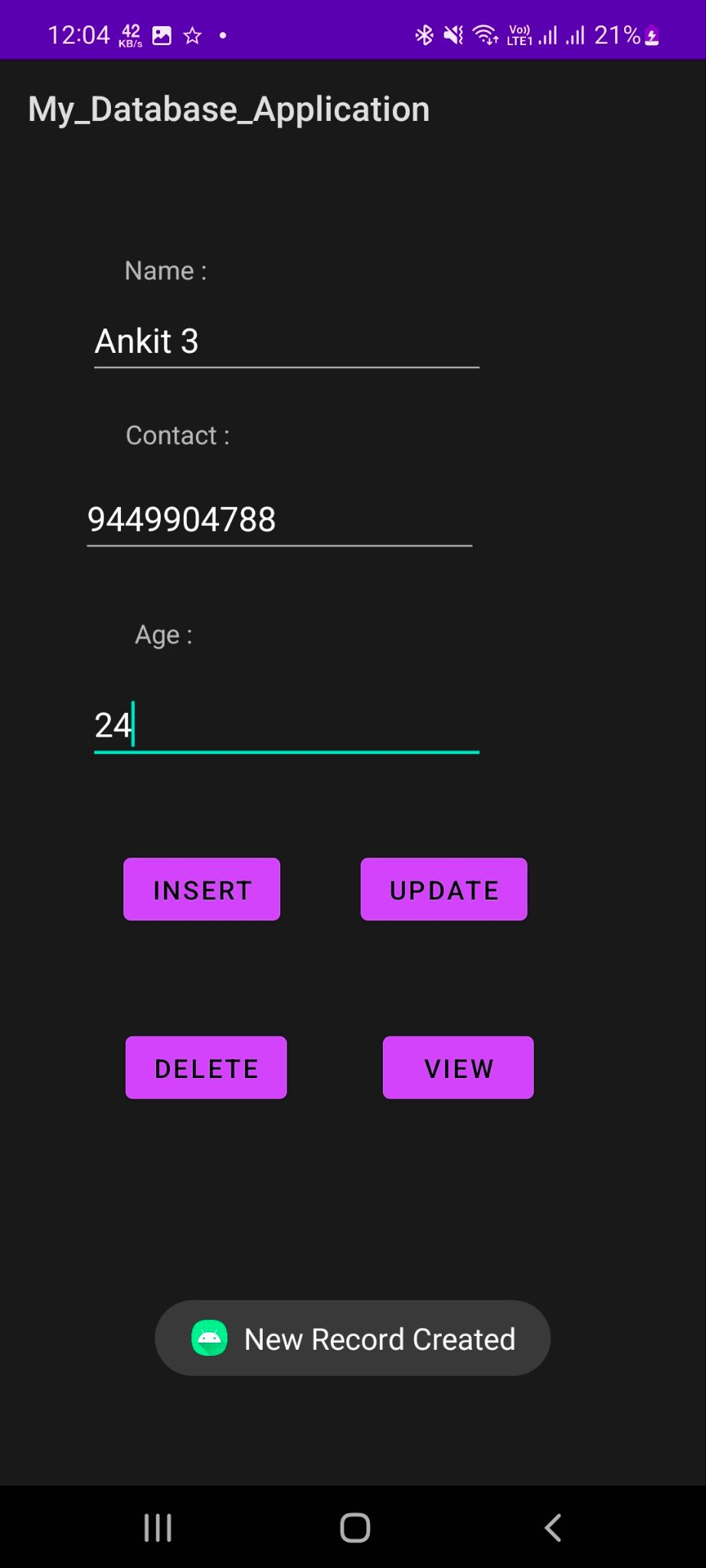
app:layout\_constraintEnd\_toEndOf="parent"

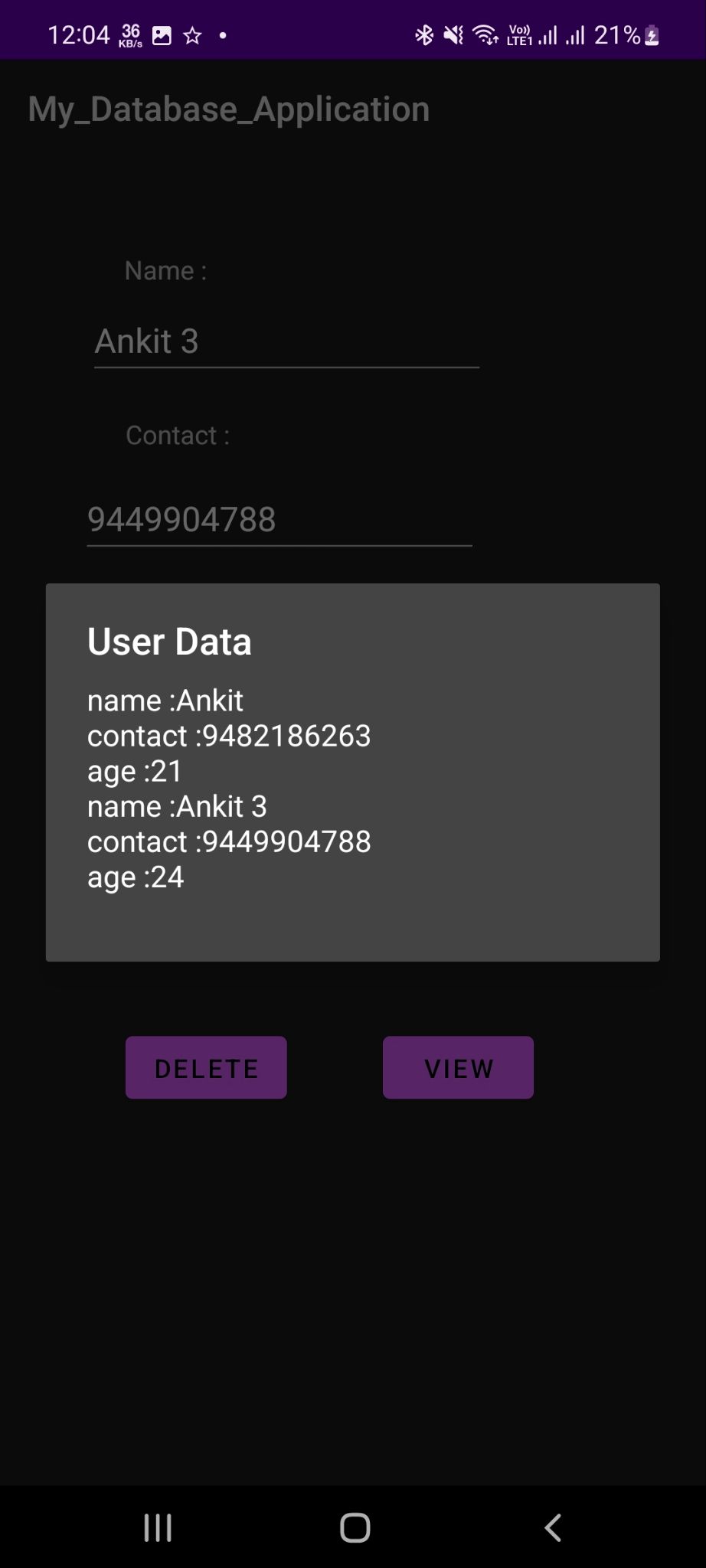
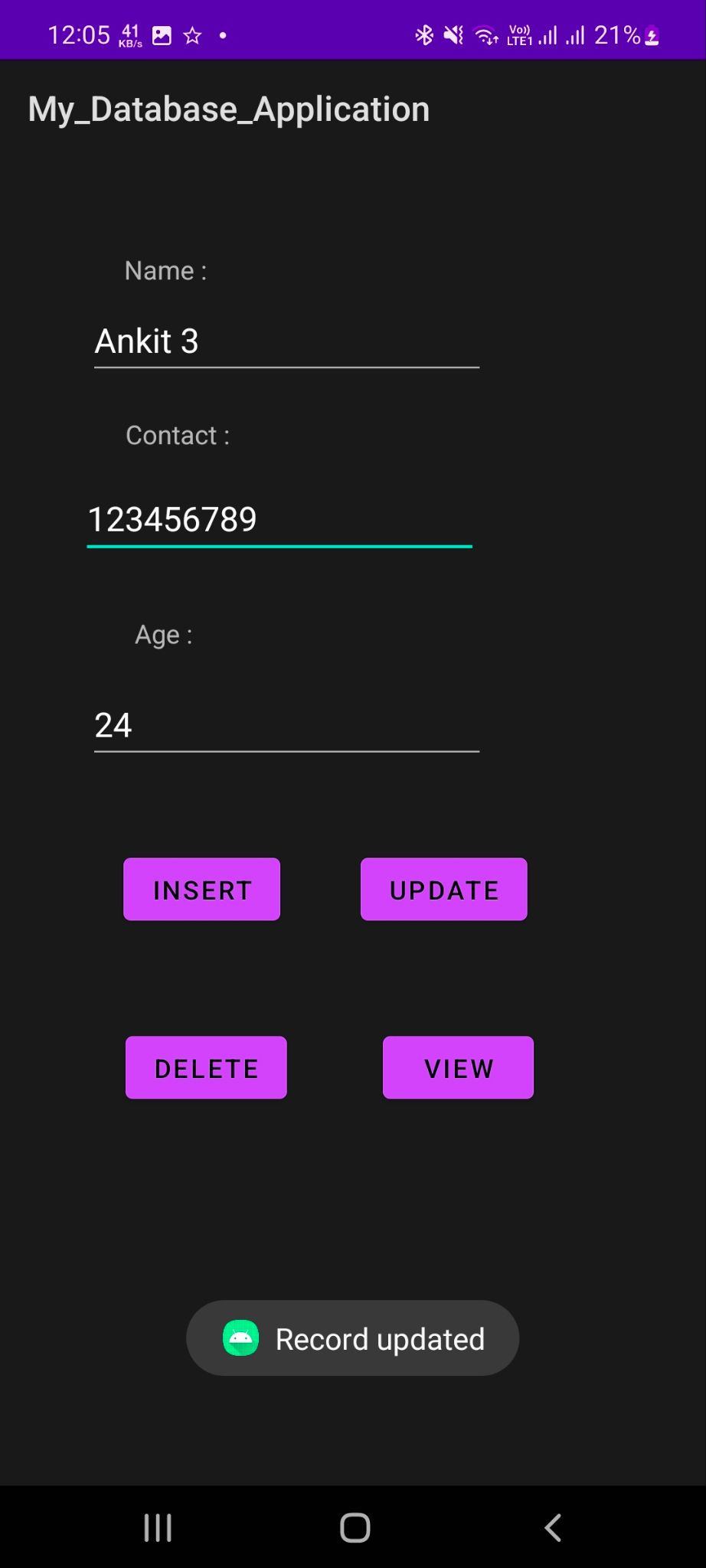
app:layout\_constraintTop\_toBottomOf="@+id/update" />

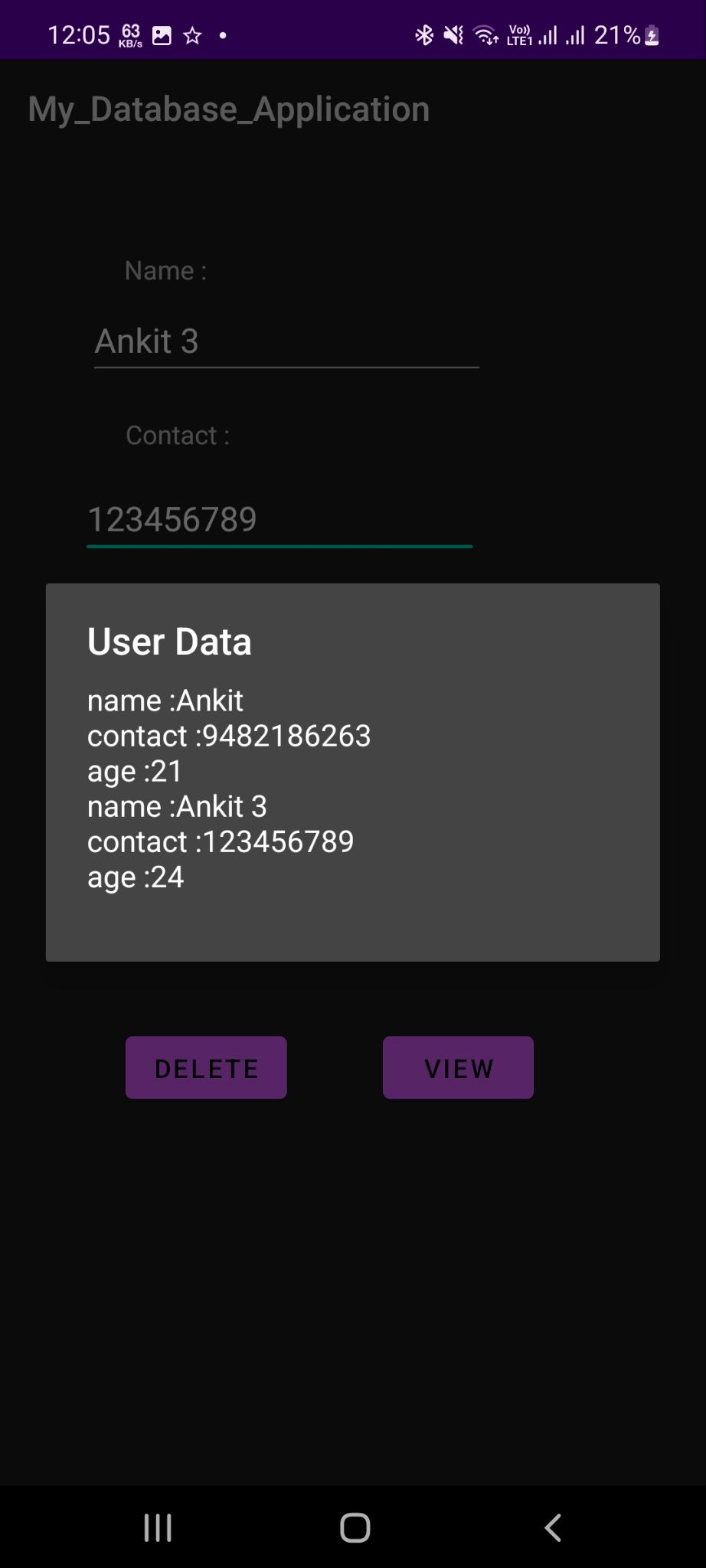
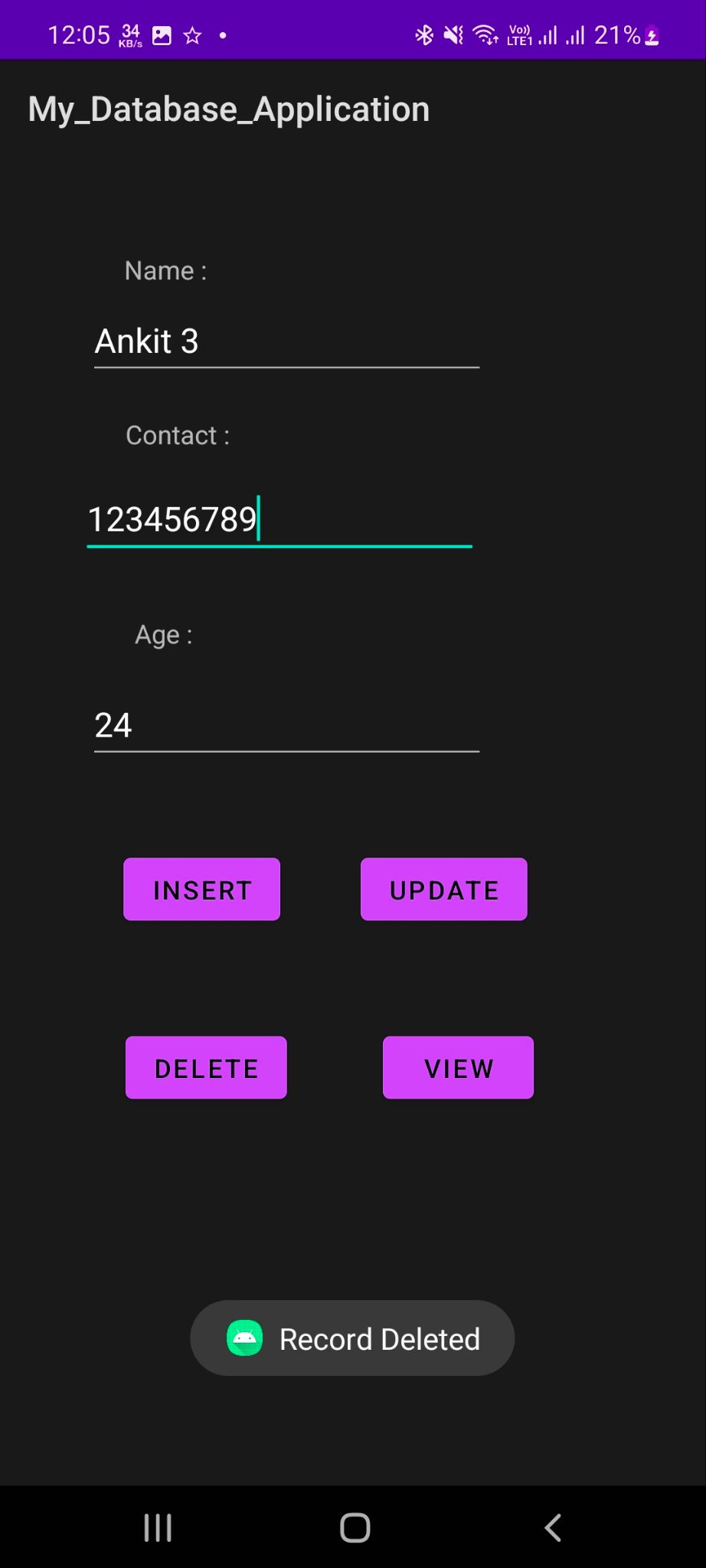
</androidx.constraintlayout.widget.ConstraintLayout>

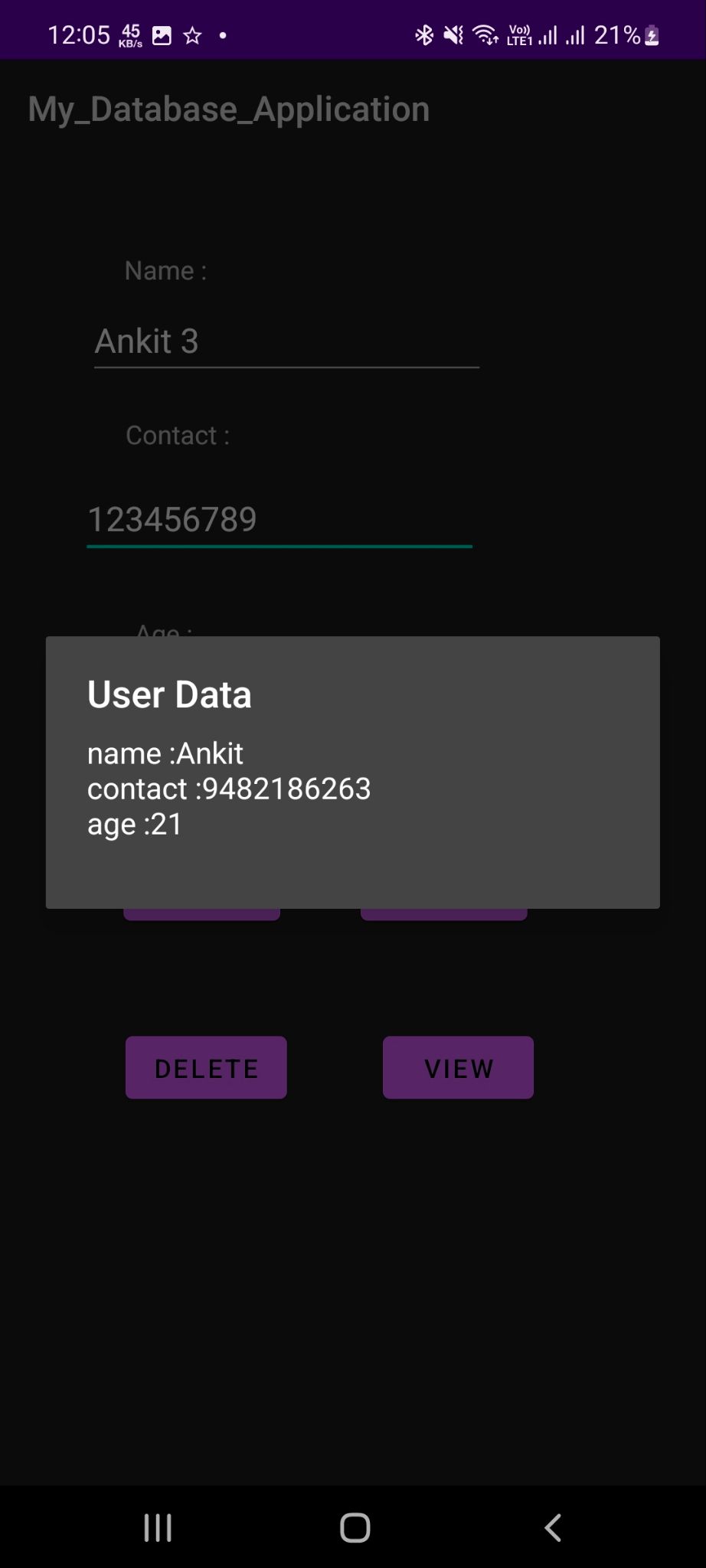
**Output :**

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