# Text 2 Speech

TextToSpeech

TTS

TextToSpeech

provided by Google installed in every mobile(TTS)

context, initListener

var isTTSReady = false

val tts: TextToSpeech = TextToSpeech(this,  
 TextToSpeech.OnInitListener **{** isTTSReady = true  
 **}**)

tts.speak(“Hello Dear”, TextToSPeech.QUEUE\_ADD, null, “1234”)

## Queue Mode

### Add

Store text in the queue

### Flush

Clears the previous content and speaks current text

## Parameters: Bundle

Voice, pitch

## Utterance id

Group

# Databases

Traditionally data in files

Csv, txt etc

Introduced RDBMS

SQL Server, Oracle, MySQL etc

Server(Apatche) is required to run

Issues:

Limited Battery, Memory

So, we use SQLite database

Now No-SQL

Firebase, Mongo DB, Graph QL, Postgre SQL etc

Lateinit var db: SQLiteDatabase

Val DBNAME = “Students”

…

db = openOrCreateDatabase(DBNAME, MODE\_PRIVATE, null)

Methods : insert (table, null Columns, data in the form ContentValues (Key-Value))

, update, delete, query

execSQL for DDL(Data Definiton Language)

, rawQuery DQL (Data Query Language)

tableName, selctionArguments

Returns Cursor which is by default at the end

package com.example.databasedemo  
  
import android.content.ContentValues  
import android.database.Cursor  
import android.database.sqlite.SQLiteDatabase  
import androidx.appcompat.app.AppCompatActivity  
import android.os.Bundle  
import android.widget.TextView  
import android.widget.Toast  
  
class MainActivity : AppCompatActivity() {  
 lateinit var db: SQLiteDatabase  
 val DBNAME = "students"  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
  
 db = openOrCreateDatabase(DBNAME, *MODE\_PRIVATE*, null)  
  
 val tableQuery = """  
 CREATE TABLE IF NOT EXISTS user(id INTEGER PRIMARY KEY,   
 username TEXT UNIQUE, password TEXT)  
 """.*trimIndent*()  
 db.execSQL(tableQuery)  
  
// insertData(1, "Sajjad", "@3456")  
// insertData(2, "Sajan", "@3256")  
// insertData(3, "Shayan", "@3156")  
 getAllData("user")  
 }  
  
 fun insertData(id:Int, username: String, password: String){  
 val cv = ContentValues()  
 cv.put("id", id)  
 cv.put("username", username)  
 cv.put("password",password)  
  
 db.insert("user", null, cv)  
 }  
  
 fun getAllData(table: String){  
 val query = """  
 SELECT \* FROM $table  
 """.*trimIndent*()  
 var cursor: Cursor = db.rawQuery(query, null)  
  
 var data = ""  
 if(cursor.*count* > 0) {  
 cursor.moveToFirst()  
 do {  
 data += """  
 ${cursor.getInt(0)} ${cursor.getString(1)} ${cursor.getString(2)}  
 """  
 } while (cursor.moveToNext())  
 }  
 findViewById<TextView>(R.id.*text*).*text* = data  
 Toast.makeText(this, data, Toast.*LENGTH\_LONG*).show()  
 }  
}