

**CHORDAR**

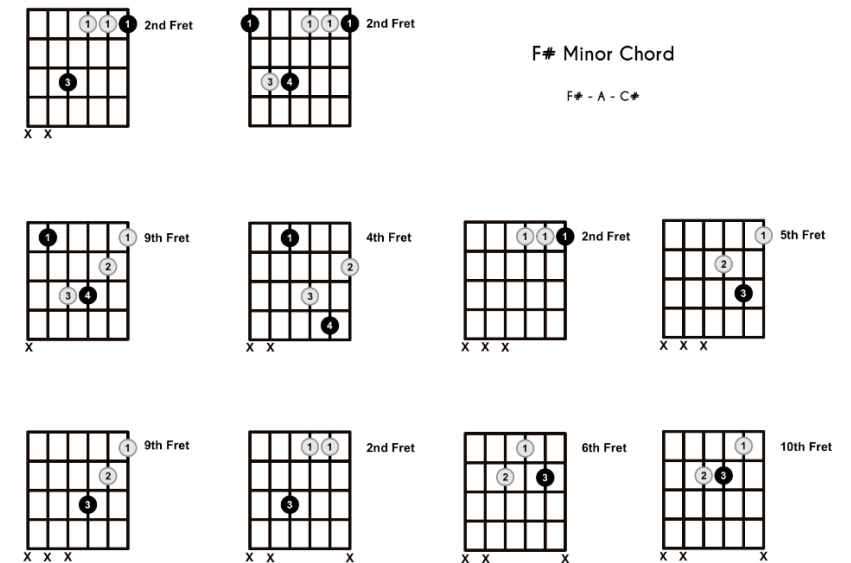
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סדנת פיתוח אפליקציות מובייל בהנחיית:  
ד"ר אילן קירש

אלמוג אתל שמעון, אורון בורטמן, אלה מיליאבסקי

# BACKGROUND AND GOAL

- When it comes to playing the guitar, chords are fundamental.
- The classic form of chord diagrams is not always intuitive for beginners.
- The goal of **ChordAR** is to find a way to make it easier for anyone to learn how to play guitar chords.



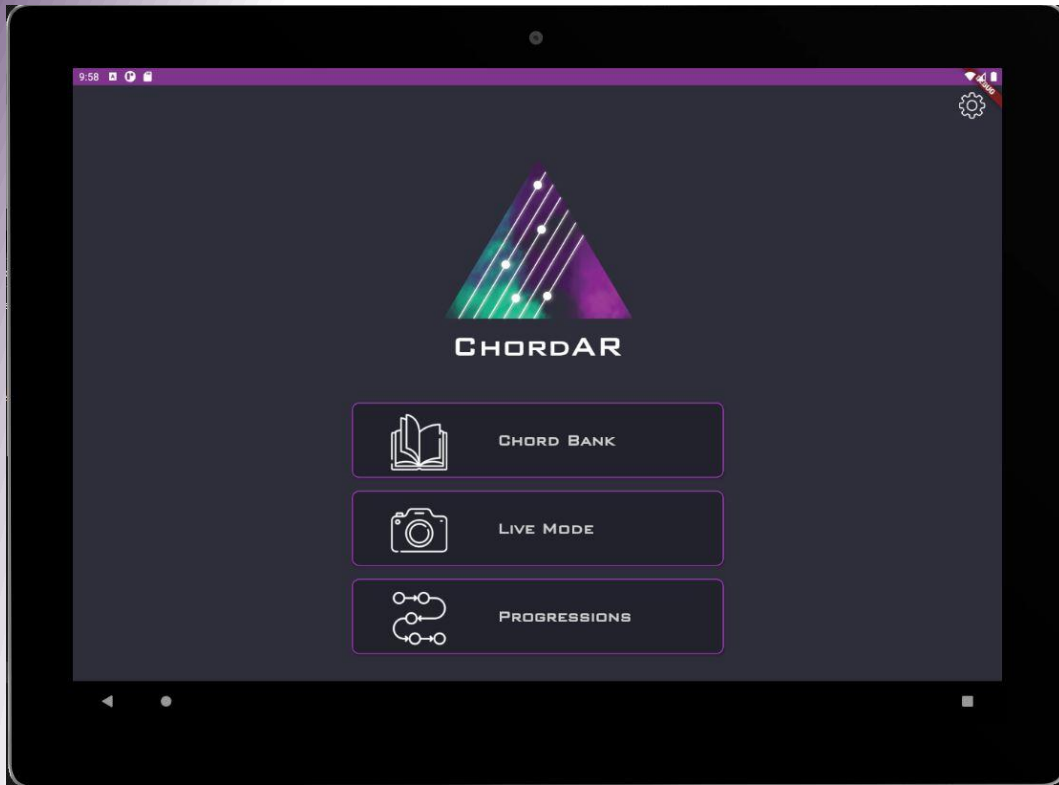
Different version for **F#M** diagrams

# DESCRIPTION

- **ChordAR** provides a new easier interactive way of learning guitar chords.
- Instructions are displayed on the user's guitar via front camera preview on screen.
- Switching chords is done easily and quickly.
- The user can create custom progressions of chords to practice.

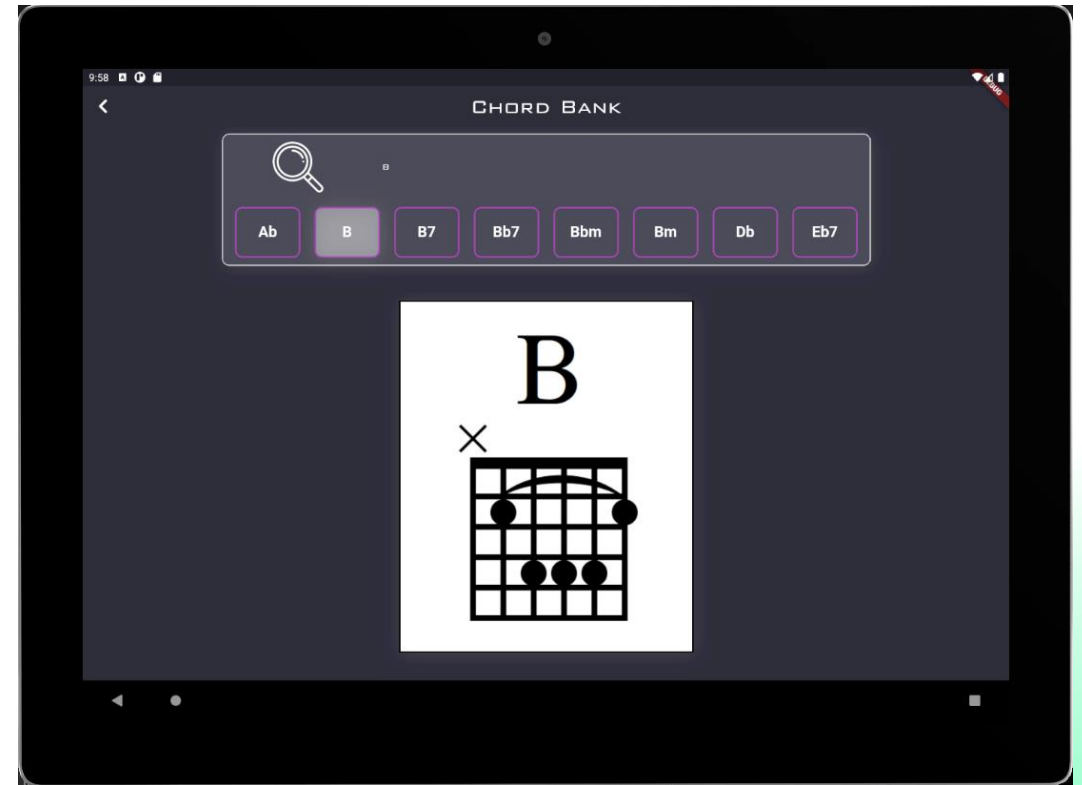
# THE FEATURES

Main Menu



Basic navigation

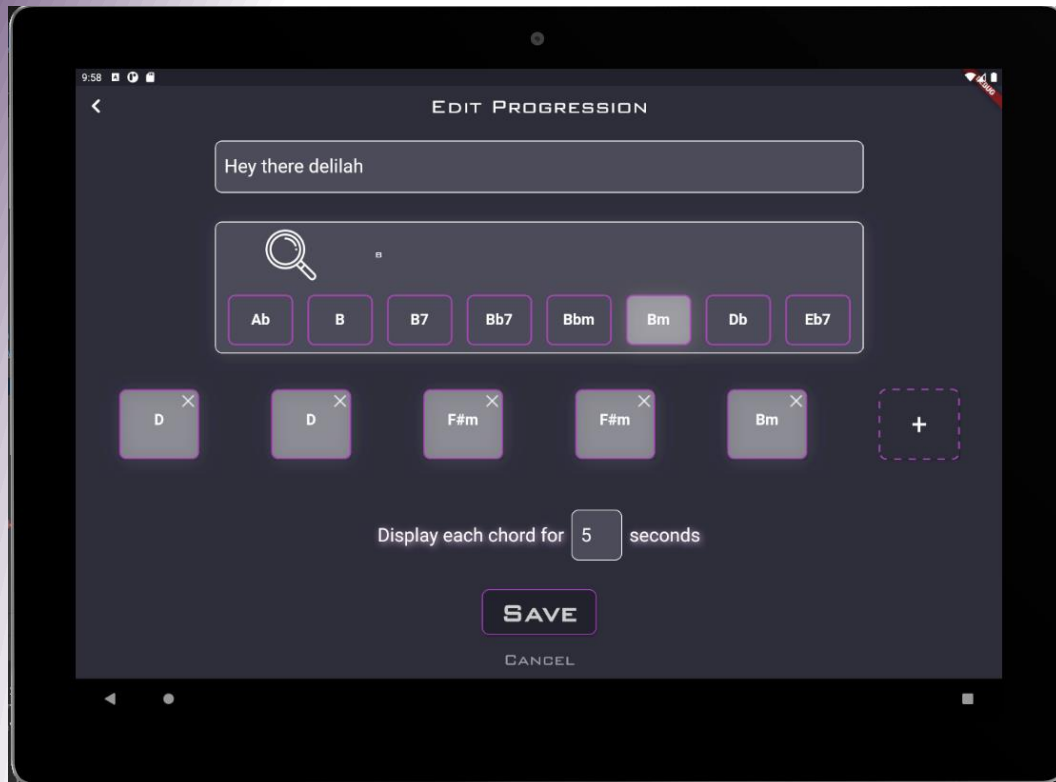
Chord Bank



Classic diagrams with search

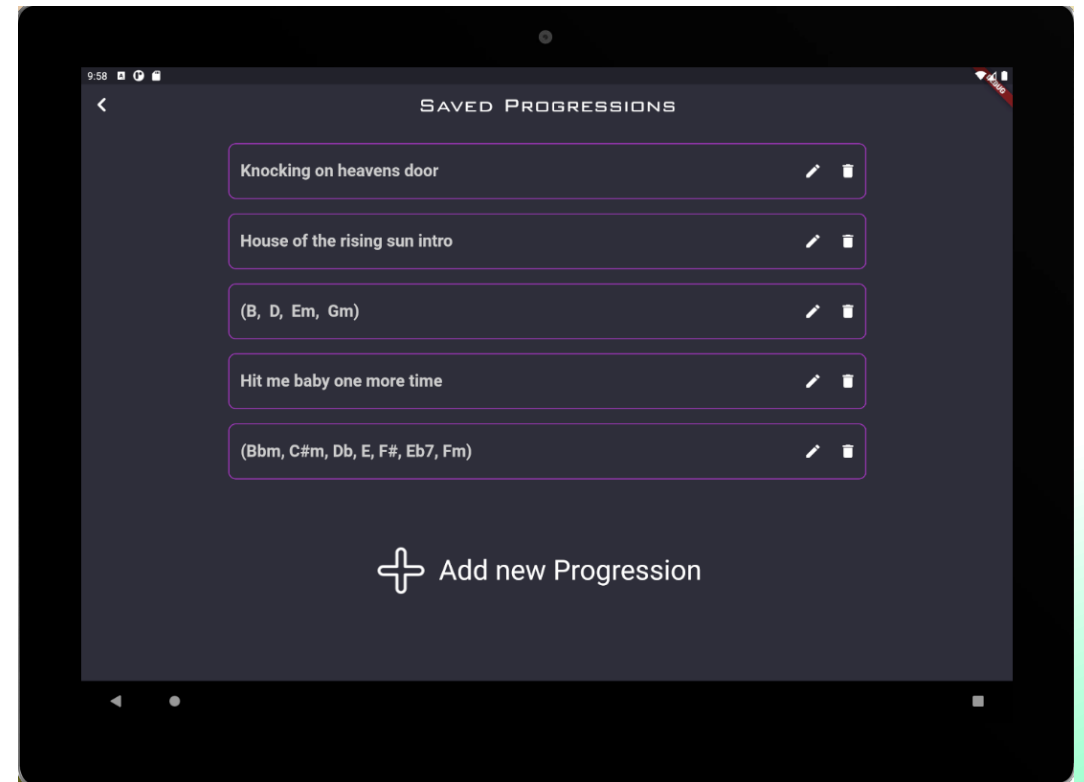
# THE FEATURES

## Edit Progressions



Create custom progressions with a name, a sequence of chords (constructed by drag and drop) and an interval for each chord

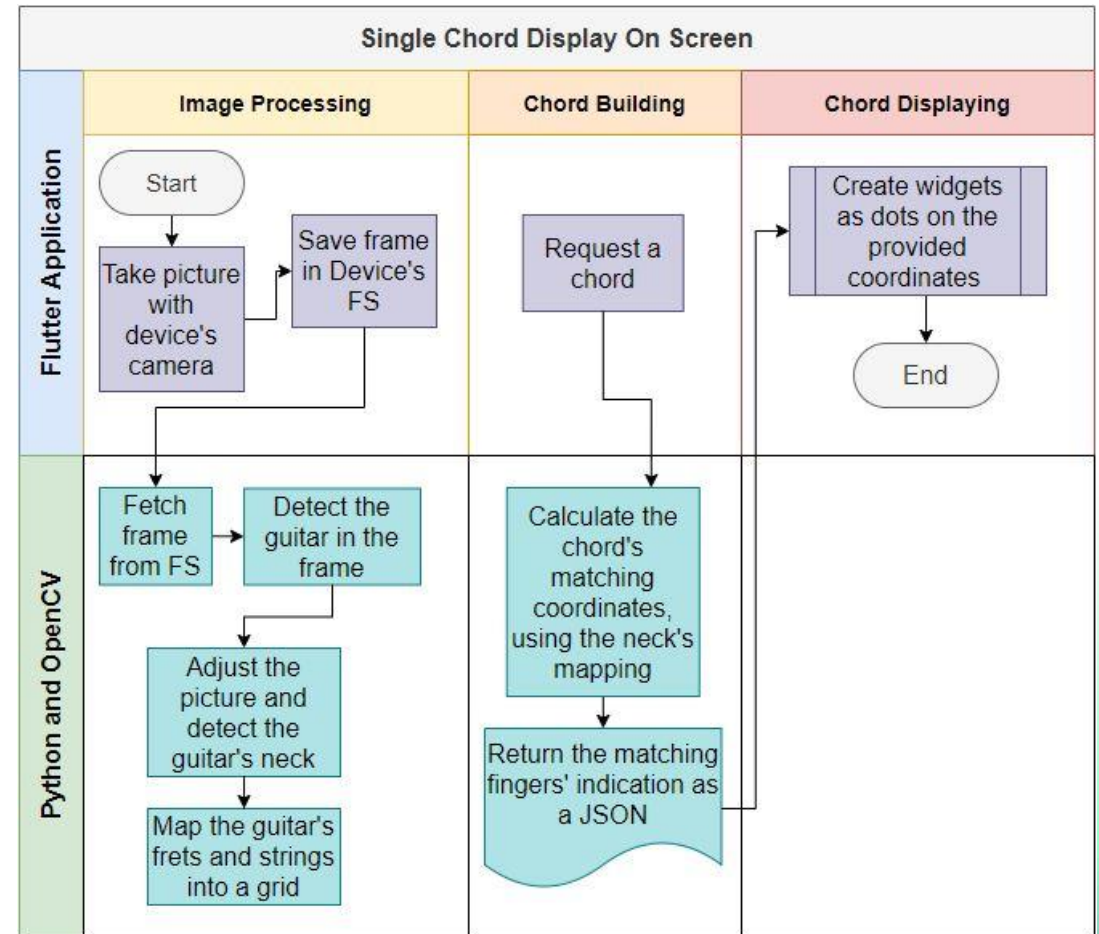
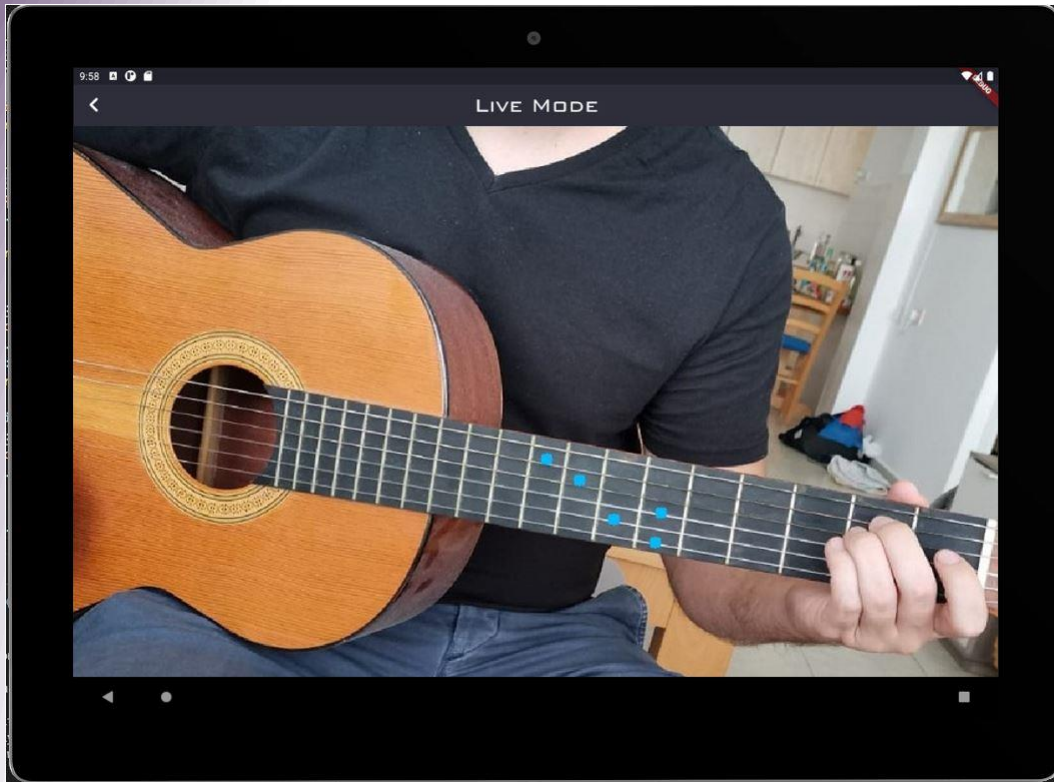
## Saved Progressions



Play, edit or delete saved progressions

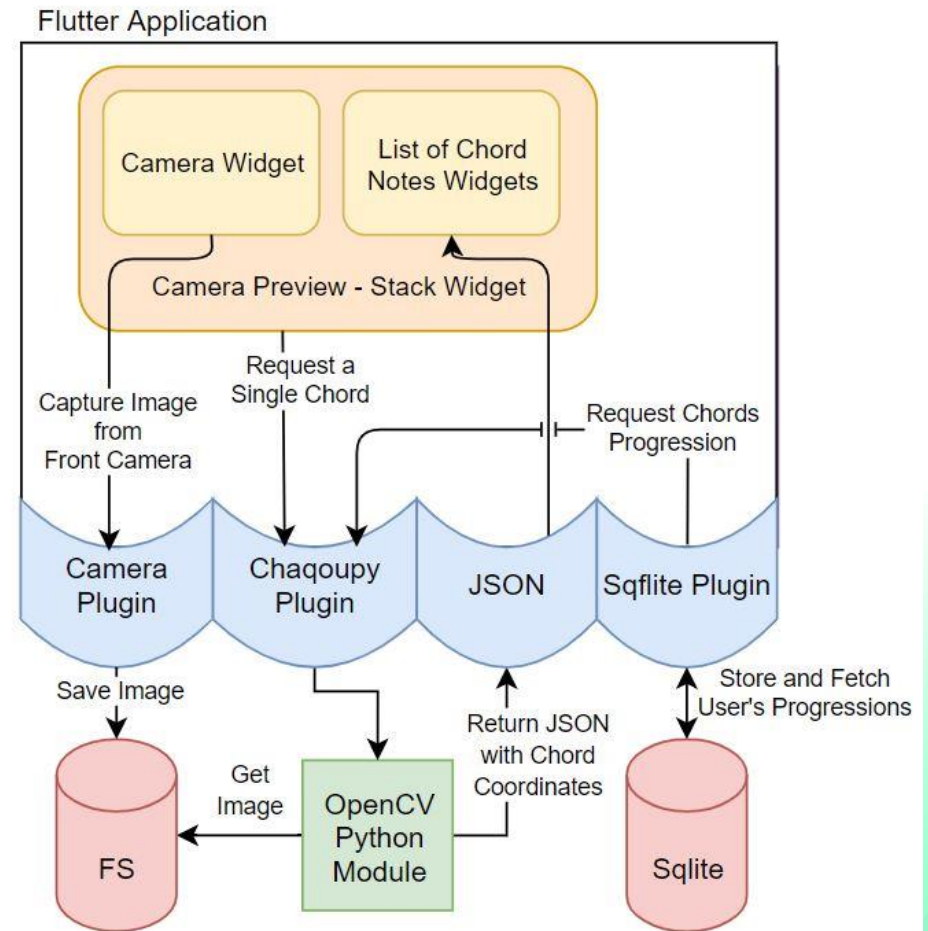
# THE FEATURES

## Live Mode



# ARCHITECTURE AND TOOLS

- The app is developed with Flutter framework (Dart).
- Image processing and recognition via OpenCV with Python.
- Guitar detection happens locally on the user's device.
- Taken frames are saved on the device's File System (FS).
- User's progressions are saved locally via SQLite.



# SIMILAR PRODUCTS

	Loog	Ultimate Guitar	Yousician	Guitar Chords	ChordAR
Main Goal	Teach kids to play the guitar	Bank of chords for songs	Teach players to play on multiple tools with vocal feedback	Chords bank	Teach beginners to play guitar chords
Adults	✗	✓	✓	✓	✓
Kids	✓	✓	✓	✓	✓
Chord Diagrams	✓	✓	✓	✓	✓
AR	✓	✗	✗	✗	✓



# SUMMARY

## ChordAR:

- Provides an easy and intuitive way to learn to play chords.
- Detects the guitar's neck in the captured image and displays a visual indication for the fingers' position to play the requested chord.
- Has a classic chord diagrams bank.
- Allows the user to plan ahead a custom progression and then play the saved sequence any time!