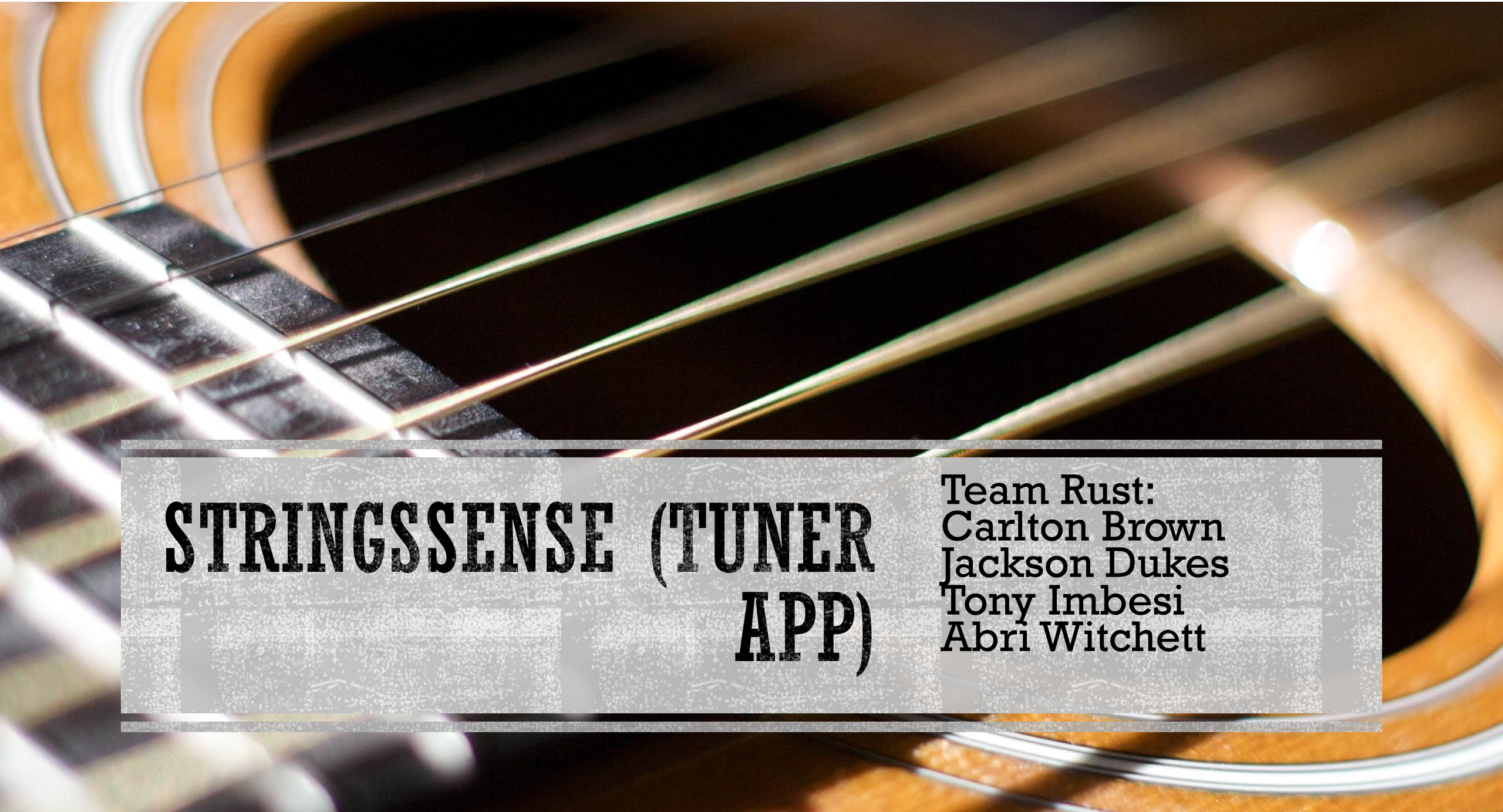

STRINGSSENSE (TUNER APP)

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THE BASICS OF THE APP

String	Note	Frequency	Scientific pitch notation
1 (Highest)	e'	329.63 Hz	E4
2	b	246.94 Hz	B3
3	g	196.00 Hz	G3
4	d	146.83 Hz	D3
5	A	110.00 Hz	A2
6 (Lowest)	E	82.41 Hz	E2

Image Via: https://subscription.packtpub.com/book/web-development/9781787288096/5/ch05lvl1sec51/overview

- Android App
- Guitarists (users) will use the app to tune each string on their instrument
- The app will use frequency-to-pitch algorithms
- Uses database to access notes
- Determines how close user is to nearest note
- provides visual feedback that shows the user how close they are to being in tune.

TECHNICAL PLATFORM

- Flutter (front-end, back-end)
- pub.dev (APIs)
- Firebase (database management)
- Android Studio (development & emulation)
- VS Code (development & emulation)

STORYBOARDS

- link

User opens the app

Start page:
Start tuning w/ default settings
Change tuning

Tuning Menu:
Select from either a chromatic tuner (Picks Up All notes) or non-chromatic tuner (EADGBE only)

Tuning:
pluck a string
send audio input
get visual feedback

USER STORYBOARD

Once user begins tuning and plucks a string ,a frequency detection algorithm will convert the sound in a numerical frequency	This frequency is then compared to a database to determine what note this frequency is close to.	depending on how close the user is to the nearest note a color and nearest note will display on screen .red (out of tune) , yellow(close to tune) , green(in tune .	Once the user plucks a note within a close enough range to the nearest note a sound cue will trigger

STORYBOARD