



Pitch Perfect

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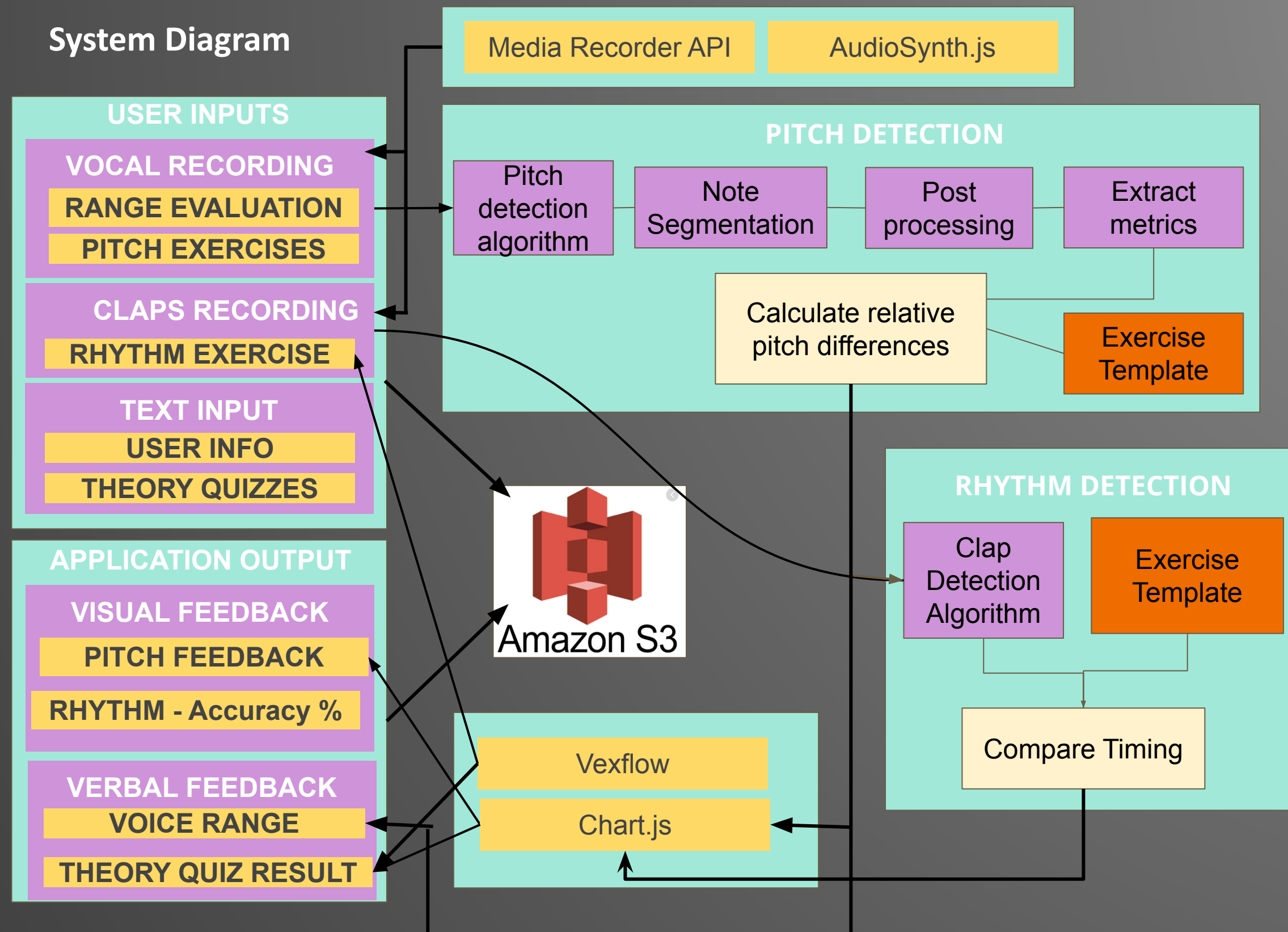


Product Pitch

A free web application that provides novice singers with exercises focused on improving their pitch control and rhythm identification, as well as music theory lessons that can provide a fundamental understanding of music elements.

The exercises hosted by this web application **provide accurate feedback** to users on their **intonation, ability to clap a rhythm, and music knowledge**. The overall web application is designed to be **user-friendly and easy to navigate**.

System Architecture



System Description

Pitch Exercise Page: Shows Solfege Bars (Fa, So, La, Ti, Do, Do) and a Record Button.

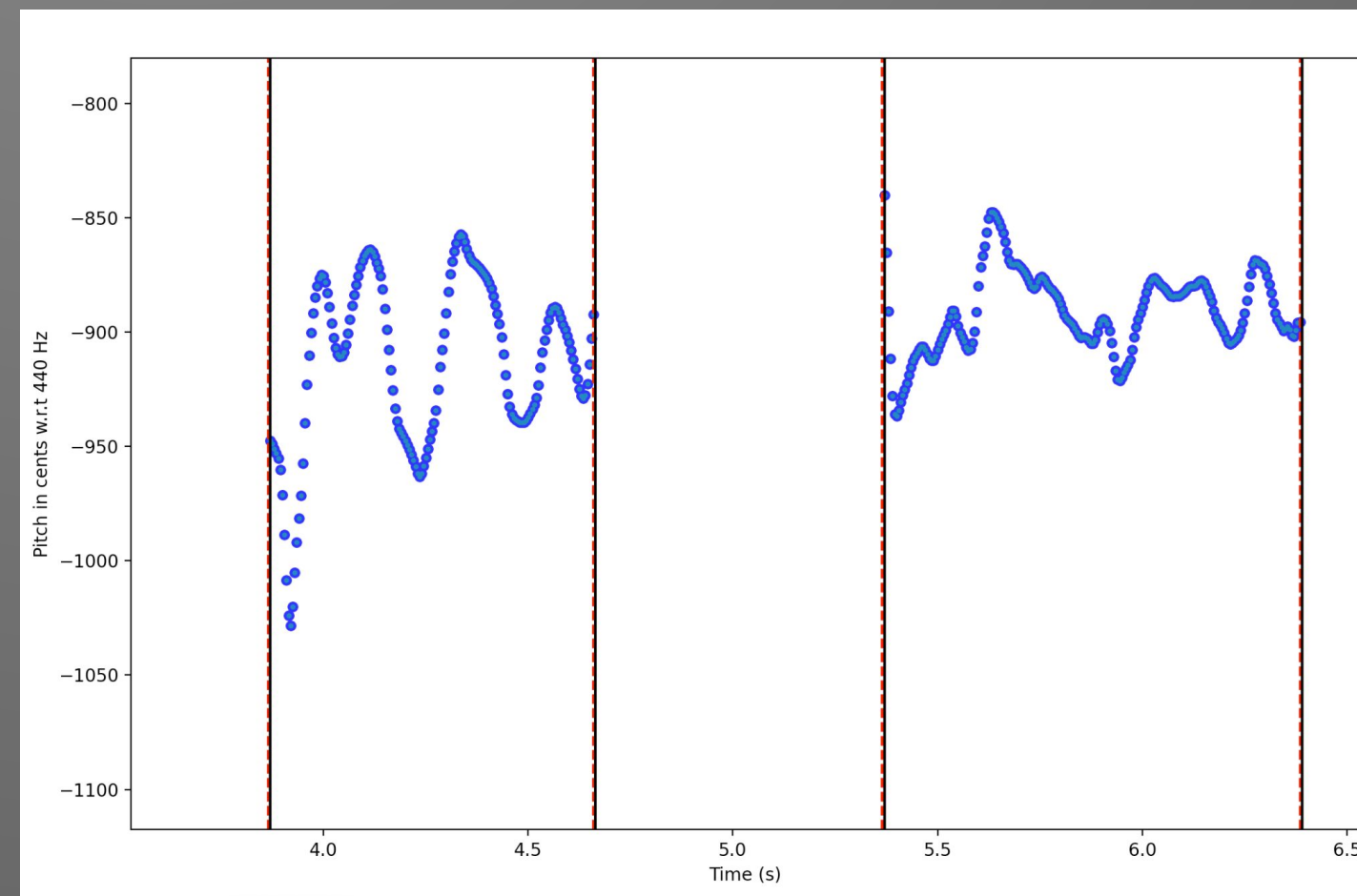
Rhythm Exercise Page: Shows Music Notes on a staff, a Playback widget, and a Submit Button.

Theory Exercise Page: Shows Instructions for a Clef Exercise, Clafs, and Fill in the Blanks.

Pitch Feedback Page: Shows Playback of a recording and Feedback Charts (Ability to Hold Note).

System Evaluation

Pitch Detection Contour Lines



Algorithm used to segment pitch contours to musical notes

UX Survey Results

Average User Rating of Overall User Experience and Ease of Use	100% of Test Users Gave 4/5 stars rating
User Comments and Suggestions	<p>"try to put more instructions on what to do on every page"</p> <p>"color scheme and layout are visually pleasing and intuitive"</p> <p>"I liked the the showing of the different type of scales"</p>