MODULO7 : A FULL STACK MUSIC INFORMATION RETRIEVAL AND STRUCTURED QUERYING ENGINE

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ABSTRACT

This paper describes a novel Music Information Retrieval and Structured Querying framework named Modulo7. Modulo7 is a full stack implementation (both client and server side software) which facilitates indexing variegated sources of music (midi, mp3, music xml and digitized sheet music files). Modulo7 implements a similarity search engine based on customized vector space representations of songs, an efficient indexing and persistent storage mechanism and an interface for querying attributes based on SQL(Structured Querying Language) like principles. The papers describes the implementation details and outlines speed up and scale up results over input sources and other MIR frameworks.

1. INTRODUCTION

Given the explosive growth of Music Information Retrieval research, several approaches and software suits have been designed

2. RELEVANT WORK

Music Information Retrieval is a vast and interdisciplinary body of work. In order to facilitate research in MIR, several software suits and frameworks have been developed in the past. Notable amongst them are software suits like jMIR [1] for automatic feature extraction from audio and midi sources, marsyas [2] for audio processing, humdrum

3. MODULO7 ARCHITECTURE

This section details the software architecture of the Modulo7
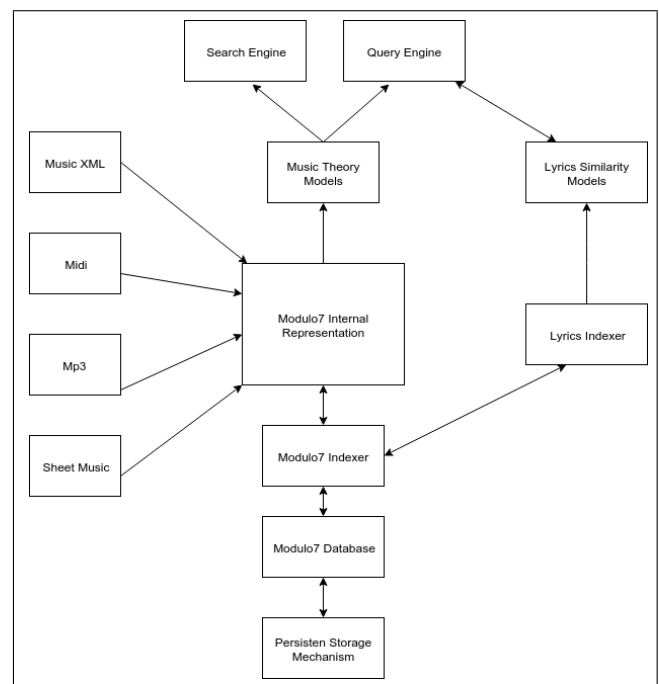
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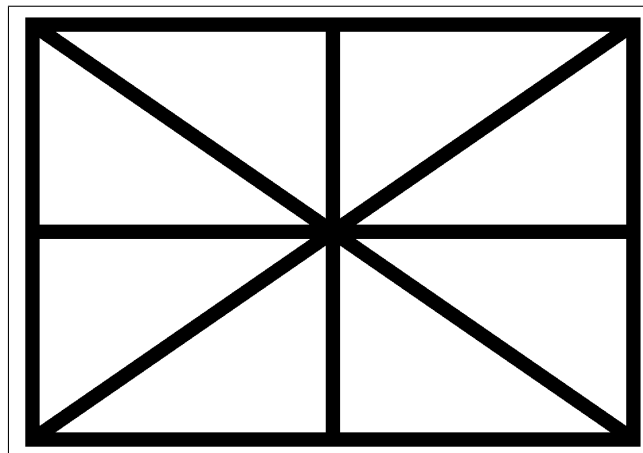
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Indicate footnotes with a number in the text. [1] Use 8pt type for footnotes. Place the footnotes at the bottom of the page

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Equations should be placed on separate lines and numbered. The number should be on the right side, in parentheses, as in Eqn (1).

$$E = mc^2 \tag{1}$$

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9. REFERENCES

[1] Cory Mckay. Automatic music classification with jmir, 2010.

[2] George Tzanetakis and Perry Cook. Marsyas: A framework for audio analysis. *Org. Sound*, 4(3):169–175, December 1999.