## YourTunes File System

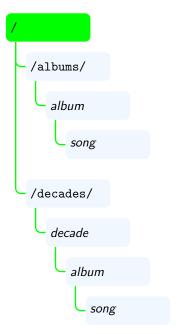
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### 1 Introduction

The **YourTunes File System** is a FUSE-based implementation of a filesystem tailored towards music files. It is built on top of a remote backend server, which stores file data and metadata on a database server with a RESTful web server frontend. The client is responsible for transparently querying the remote server for resident files and constructing a metadata-based abstraction based on the parsed server response.

#### 1.1 Directory structure

The directory structure on the local filesystem is based on audio metadata - specifically, the Album, Title, Track, and Year ID3 fields.



Each song is placed as a leaf in two separate directory trees: one based on albums directly, and one based on albums categorized by the decade that they were released in (parsed from the Year field). In the case of missing metadata, a song is placed in a "Unknown" folder for both cases (/albums/Unknown/file). Files with no metadata are also put into these buckets.

Given the same metadata, the file pointers through both directory hierarchies are pointers to the same file data.

## 1.2 Example

Given a audio file with the following metadata:

Track	TODO
Title	TODO
Artist	TODO
Album	TODO
Year	TODO

The filesystem will present the following abstraction:

# 2 Setup

### 3 Server