Software Architecture Document

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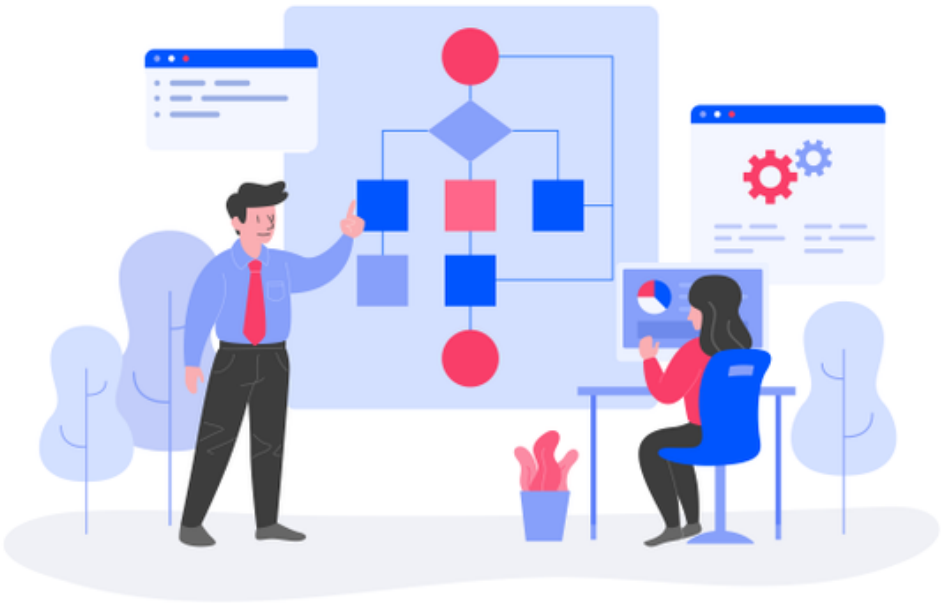
Version History

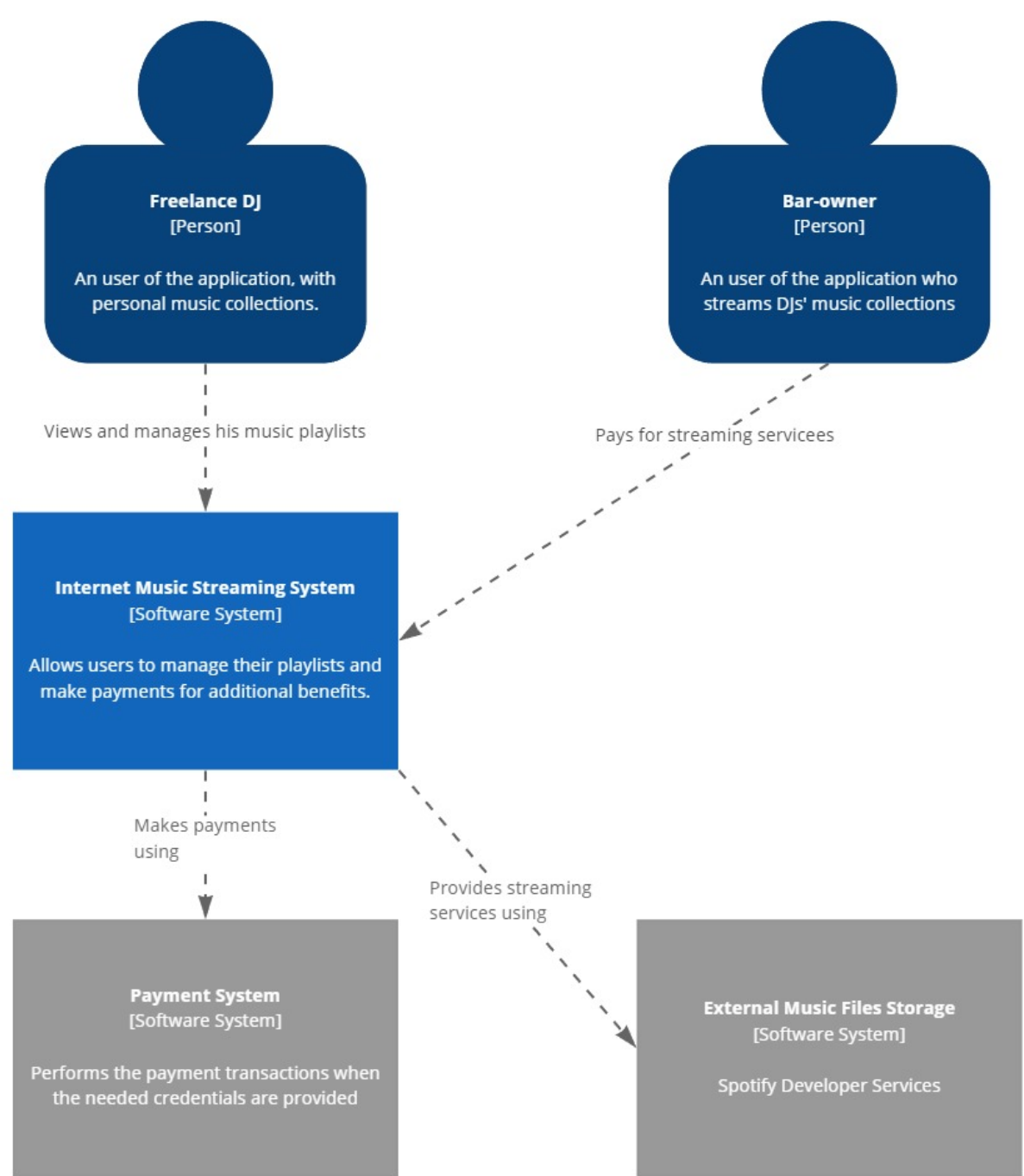| Version	Changelog	Date	Rationale
v1.0	-	October 7, 2022	Issued

Contents

1 Introduction

The purpose of this document is to provide a detailed architecture design of the new music collection streaming platform DJingle by focusing on four key concepts: system context, containers and tech choices, components and diagrams of the outlook of the software. These attributes were chosen based on their importance in the design and construction of the application.

This document includes a general description of the system, a scope definition, the logical architecture of the software, the layers and top-level components as well as justification of the technical choices made. Each of the aforementioned attributes will be described through a comprehensive sections followed by an architectural overview, which includes different types of diagrams and a full description of patterns and tactics that will be used to address the architecturally significant processes. Finally, a conclusion and a summary of the technical choices will round out the document.

The intention of this document is to help for the development process of determining how the system will be structured at the highest level. Moreover, the project leader and the rest of the stakeholders can use this document to validate that the developer is meeting the agreed-upon requirements during the evaluation of the developer's efforts.

2 System Context

2.1 Diagram C1

Freelance DJ
[Person]

An user of the application, with personal music collections.

Bar-owner
[Person]

An user of the application who streams DJs' music collections

Views and manages his music playlists

Pays for streaming servicees

Internet Music Streaming System
[Software System]

Allows users to manage their playlists and make payments for additional benefits.

Makes payments using

Provides streaming services using

Payment System
[Software System]

Performs the payment transactions when the needed credentials are provided

External Music Files Storage
[Software System]

Spotify Developer Services

System Context Diagram for Music Streaming System
The system context diagram for the Music Streaming System
Last modified: 26-09-2022
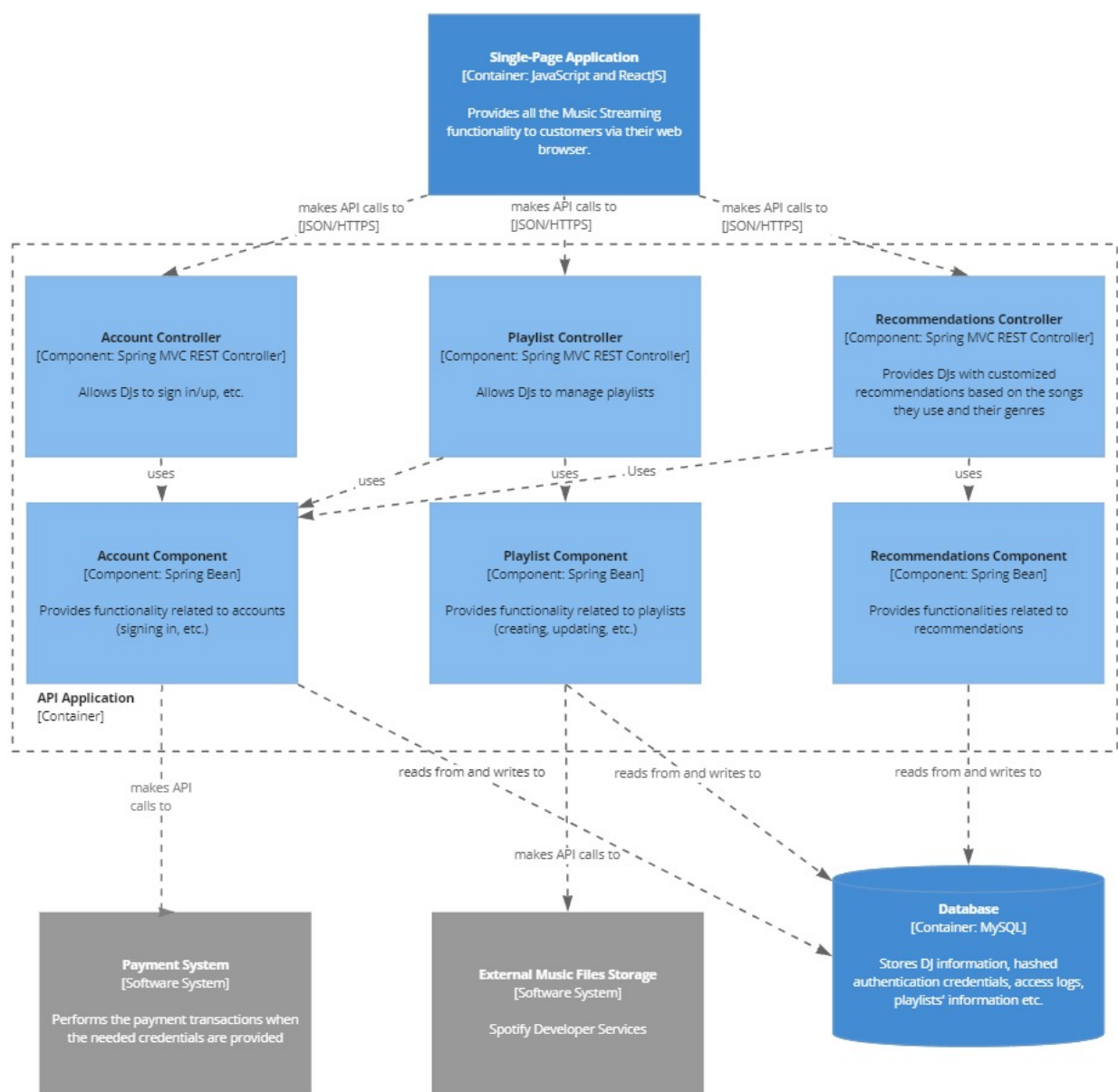
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3 Containers and technical choices

3.1 Diagram C2

Container Diagram for Music Streaming System
The system container diagram for the Music Streaming
System
Last modified: 7-10-2022
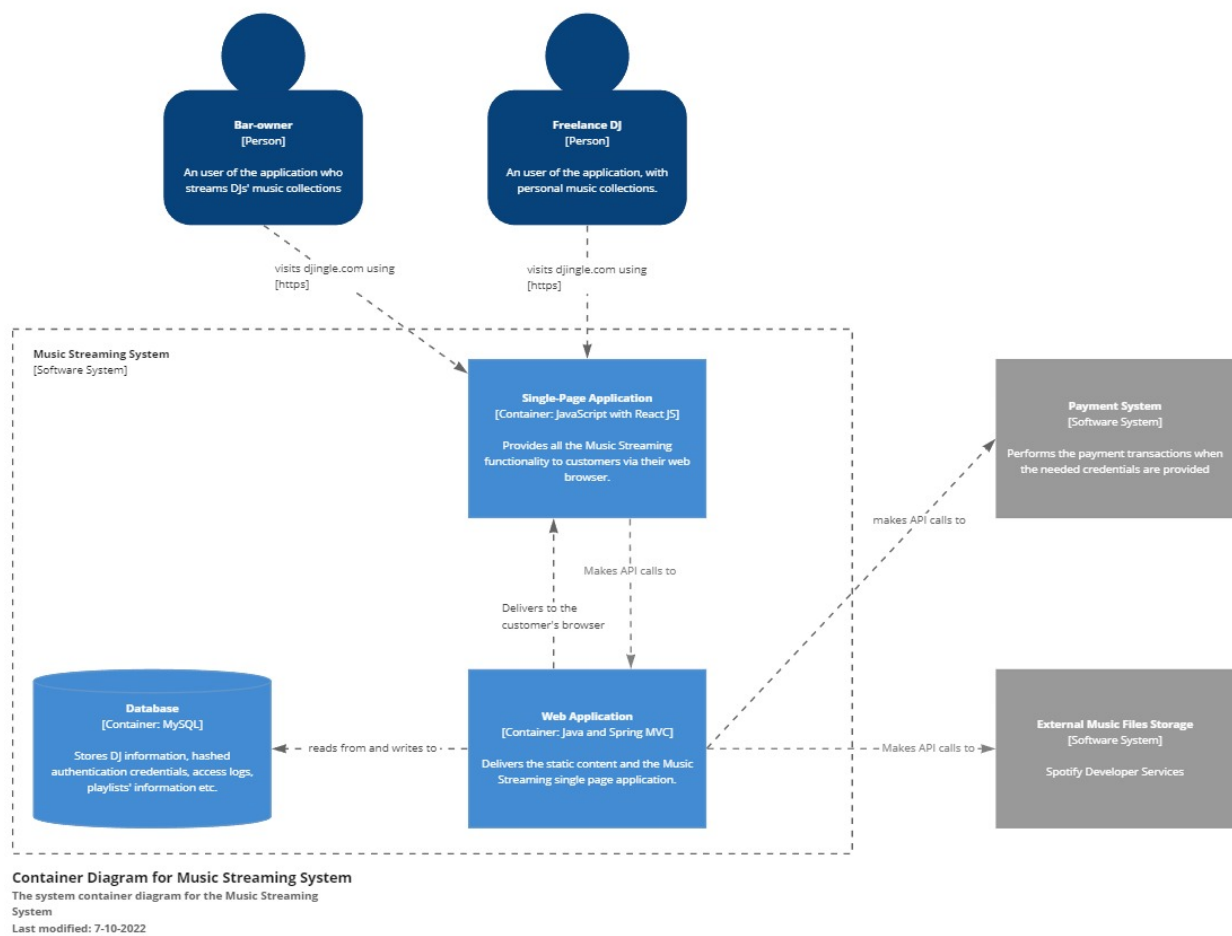
3.2 Technical Choices

4 Components

4.1 Diagram C3

Component Diagram for Music Streaming System - API Application
The component diagram for the API Application
Last modified: 7-10-2022

4.2 Technical Choices