Archived Software Design Document

Yuchung Wu (Troy)

6.1 Introduction

This document presents the architecture and detailed design for the software for the Archived project. The project allows users to sell and purchase beats/artist opens within the music community.

6.1.1 System Objective Section

The objective of the application is to create a streaming platform but built specifically for producers and artists to interact together. This app will integrate a payment system to allow users to auction/purchase beats. Users can also direct message producers and artists for a potential collaboration.

6.1.2 Software

This application will be created using Swift on Xcode with integration of Google Firebase (database) and Stripe (payment system).

6.2 Architecture Design Section

The Archived application will consist of many architectural pieces, which are organized by their features and the functions they perform within the application. These architectural partitions are ultimately divided by Core, Components, and Services, with Components containing reusable software pieces that permeate throughout the application, the Core containing feature specific software pieces, and the Services as the integration of Components and Core into the UI of the application.

6.2.1 Major Software Components Section

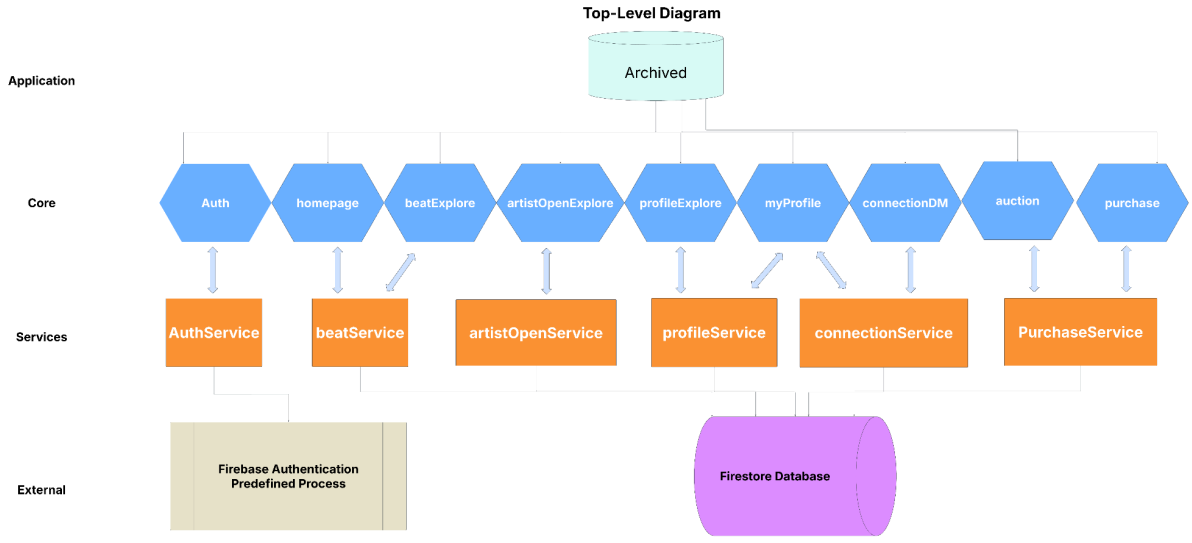
The major software components are contained within the Core partition of the software architecture. These components include the functional pieces of software that are responsible for the functionality of

homepage, beatFeed, artistOpenFeed, profileExploreFeed, myProfile, and connectionDM. While the views responsible for each functional aspect of the application will be contained within their respective partitions, many of the application's features will contain shared components of software. These components, including View components such as uploadView, beatRowView, beatProductView, marqueeTextView, waveformView, profileView, offerView, PurchaseView, and more will be used throughout the application to ensure consistency with look, feel, and usage of the application for the user.

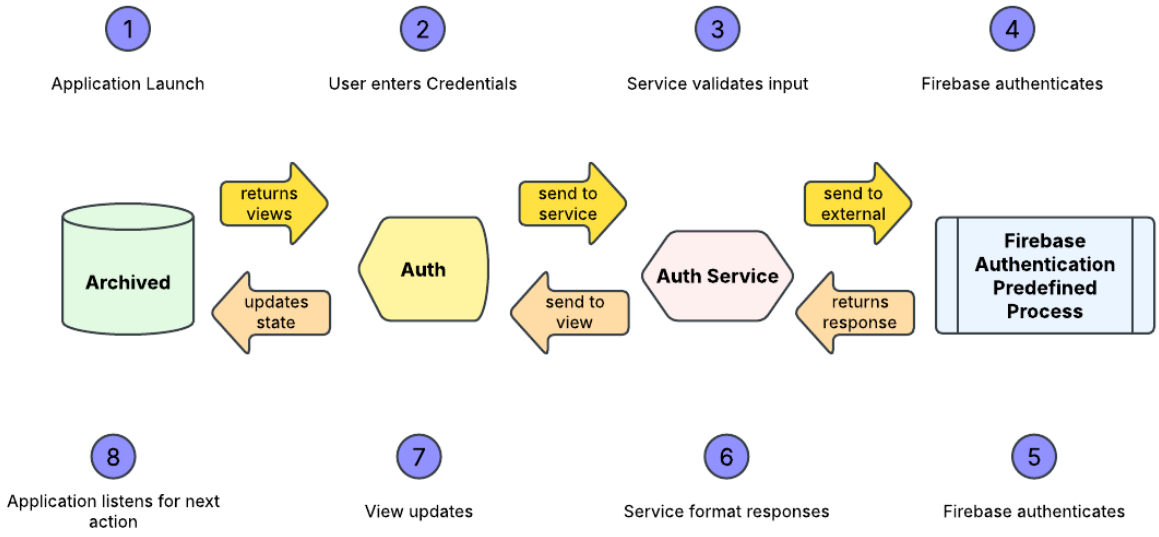
6.2.2 Major Software Interactions

The application will feature software components responsible for data services. These services will include the AuthService, for connecting to the Firebase Authentication product, as well various data services which will be responsible for enforcing and managing the Firestore database. These data services include the profileService, beatService, userService, openService, connectionService, purchaseService, and auctionService. Each service will contain software that ensures data is retrieved and committed to the Firestore Database in a manner that conforms to the application data schema and is also usable by the application views detailed above.

6.2.3 Architectural Design Diagrams



Data Flow Diagram



Implementation Diagram