

Product Intro/How we came up with the idea

- Someone shared a review app they had specifically for movies
- Wanted to expand off of that

- Our app provides a much wider variety of content in terms of categories
- Wished to create a sense of community

Team Introduction

The Developers of the Millenium team

Adrian

Gurashish

Brandon

Hamza

Eric

Will

Geoffrey

Highlights

- GitHub and task branching
- Jira for sprints and tasks
- Discord for communication
- Team support; open to help







Difficulties

- Poor decision making
- Working with Android Studio
- HTTPS

What we did that helped us during the process

- Coding templates
- Database function organization
- Documentation

App, Server, Database

- Chose Android Studio to develop in because it wasn't as much as a hassle when compared to Apple app development
- Decided on SQLite to store our information because it was also fairly simple to use, however mySql would be better in terms of scalability if we were to expand our app
- HTTPS Server used for communication between our management and database system and the android app
- Session manager to keep track of active sessions of user activity

Architecture

Basics

App_
uses HTTPS client to send requests to the server.
Uses the resulting response JSON to fill

the view with that

data

communication
over HTTPS

server uses HTTPS server to accept request from clients (the app) and performs some task depending on the servlet.

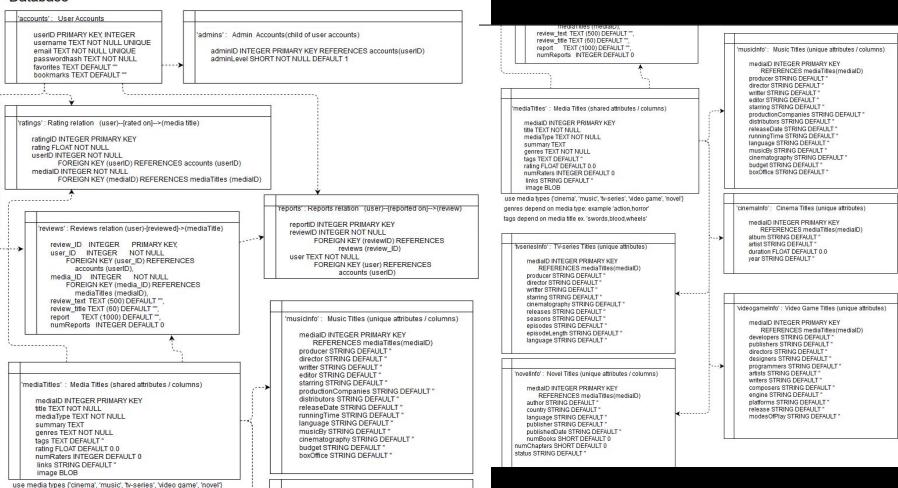
The server then communicates with theSQLite3 database via jdbc driver.

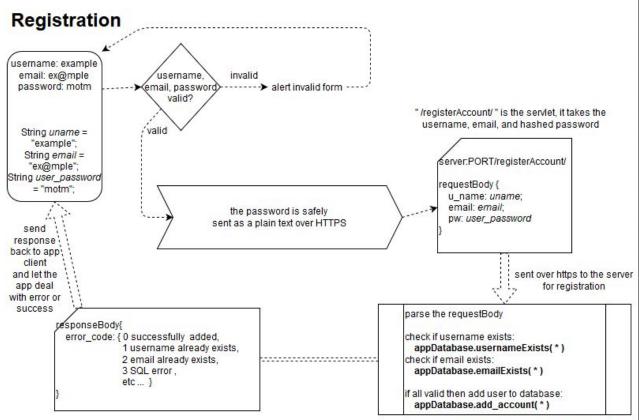
communicate over SQLite query language

SQLite3 database

holds all data pertaining to accounts and media title information

Database





the password is hashed via java built-in pbkdf2



Media of the Millenium

Username

Username

Email

someone@example.con

Password

Password

Confirm Password

Password

SIGNUP

- Java Development Kit --version 8
- SQLite3
- PBKDF2 hashing
- Android -- version 4.4 KitKat
- Android Studio
- HTTPS server & client
 - Okhttp3
 - SSL/TLS
- Session Management







Java Development Kit 8

- Widely used and long term support
- Comfort and familiarity



SQLite3

- Lightweight and easy to use
- Not scalable, lack of features
- Persistent image storage through BLOBs
- Xerial JDBC



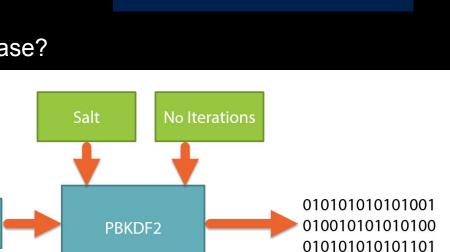


PBKDF2

- Password-Based Key Derivation Function 2
- Why hash the password for the database?

Password

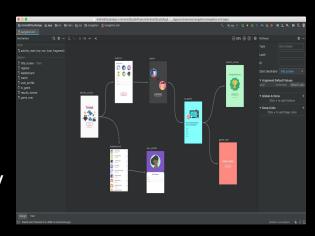
Password salting





Android and Android Studio

- Android version 4.4 for compatibility and availability



Android Studio for app development



Technical Challenges

- Issues with security
- Certificates and Keystore
- Async and sync processes
- Database locks Layouts on android studio were a hassle

Demo

Thanks for listening~

Any questions?