

ECE 428: Cloud Computing



Final Project Proposal

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Contents

1	Statement of the Problem	2
2	Market Research	2
3	Proposed Solution and Requirements	2
4	User Interface	3
5	Technical Specifications	4
6	Testing	5
7	Group Plan	5

1 Statement of the Problem

With so much media, it's hard to keep track what you want to engage with and what you don't want to engage with. People have made **bucketlists** before, but those are typically rigid and harder to manage to.

2 Market Research

There has been several applications that seek to record how media that you wish to consume in the future: Myanimelist records anime you wish to watch, IMBD List, Steam wishlist, etc. Having an application that can keep track of media in a generic bucketlist, with custom made tags and query, will allow for high power in specifying how you want to keep the list.

3 Proposed Solution and Requirements

A web app with DynamoDB will allow users to keep dynamic bucket lists, holding all information pertaining to the type of media being inserted. Allowing users to search and sort their items will keep the user organized and save a lot of time. This app will allow users to add, delete, and modify their bucket list quickly and efficiently, and have access to their bucket list wherever they may be using DynamoDB's great feature set.

At this stage, we will be making bucket list for music records. So the user can input a record they want to keep track of, with the following attributes

- Album Cover: Picture of Album Cover
- Title(required): name of the record
- Year(required): when the record was realised
- Genre: Category of the record
- Artist: Who made the record

4 User Interface

The desktop user interface will be created using Python and Flask, the program will allow users to add data to the tables, retrieve items from tables, and query for items. A mockup of what the end program will look like is shown below.

Search for album here				
Album Cover	Title	Artist	Year	Genre

Search results for X				
Album Cover	Title	Artist	Year	Genre

5 Technical Specifications

DyanmoDB as the database, python for the language, and Flask for the user interface. DynamoDB will allow us to store the information in an organized way and allow users to search for their data. Python will be the backbone of our program and tie everything together. Flask will allow us to put everything behind a nice, easy to use, GUI. We will use the Itunes API as well to give us album covers as well as a audio preview.

6 Testing

Time to execute create/read/update/write to the database, time to display the rows, and (if we do so) time to sort the features and query results

7 Group Plan

Zaki will work on interface with DynamoDB, Hadi will work on user interface and Hadi/Zaki will do the back-end logic.