CSCE 470 Proposal

Gamer's Master Management Application

Background

This project aims to improve the current Steam's game indexing that will shine a fair light to all game titles. By utilizing data crawling technique, search engine and trend knowledges, we hope to bring about the changes to the current indexing system and help smaller game companies reaching their consuming mass.

Motivation

It goes without saying that the current gaming industry is massive and on the rise. Totaling over $120 billion globally, the industry is dominated by a handful of huge gaming companies. This brings about an extremely competitive game development environment, and cutthroat marketing. Industry giants like EA, Ubisoft, and Activision are notorious for high budget marketing campaigns with no consideration of releasing a complete or bugtested game. These games are high in price and made to look more polished visually yet offer little to no actual gameplay content. However, due to the extensive marketing campaigns, these incomplete products still sell in high enough volume to corner the market and limit the success of smaller, lesser known game companies.

Work comparison

The current indexing scheme for games are heavily influenced by advertisement budget and paid premium listings. The bigger the game company, the more often that its game title will be pushed to the top of the search, and with the often high volume of games released by these larger developers, the first three to five pages will be filled with nothing but their products. Upon reaching the front page of Steam, or other game listings, all banners are flooded with big game titles that are heavily advertised. Ironically, these featured games are often severely bugged and incomplete, reflecting the often times grim reality that the budget and effort for marketing is bigger than that of the game development itself.

In short, our team want to bring about a new indexing page that highlights the importance of a well made game, rather than how big the title is.

Objective

Our objective is the development of a service that allows the user to search games based on their personal preferences (genre, developer, tags, reviews, Metacritic score, etc) without the influence of advertisements preference pushing products at the top of the list. More options within refining the search include the toggling of repeated products (Game of the Year Edition, Bundles), DLC content from common searches, recommendations off of similar preferences, filtering developers, and other features that the team may include if deemed feasible.

Methodology

Task 1: Data Crawling

We are using Scrapy, a Python framework for scraping and web crawling, to extract relevant data from Steam.

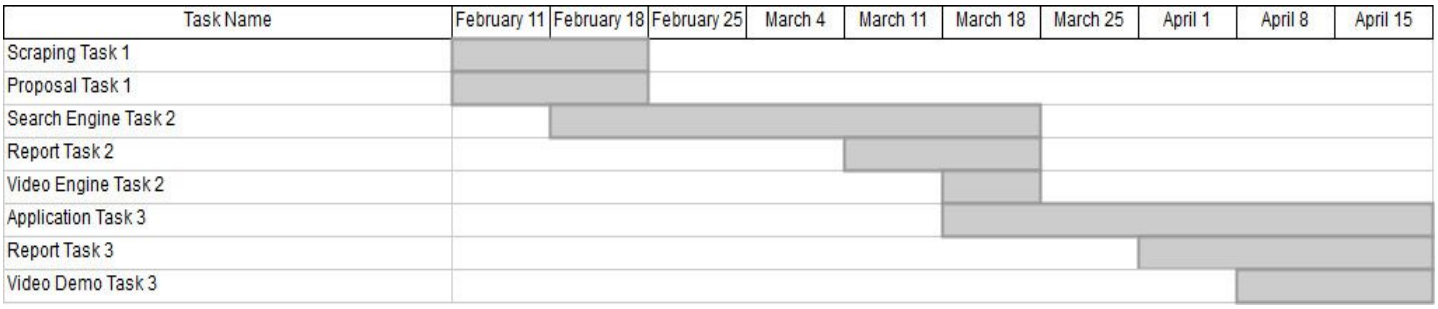
Task 2: Search Engine

We are using Solr to organize and index all the document that we crawl from Task 1.

Task 3: Application

We will develop an application in Javascript that makes use of the our data and the Task 2's search engine.

Project Timeline



Evaluation

We intend to measure our success based on the accuracy of our searches given set specifications and making comparisons to searches across other online platforms for game sales. We hope to demonstrate the filtering of advertisement preferences and provide to the consumer an indexing system that is accurate to what they actually searched for and can produce recommendations.

Point of Contacts

- Han Hong: hongichhan@tamu.edu
- Juan Duran: juan_duran26@tamu.edu
- Anh Nguyen: nducanh2311@tamu.edu
- Github Repository: https://github.com/harryluffy/Data-Crawler