

**CST 3130 Advanced Web Development**

**with Big Data**

**Coursework 1: Price Comparison Website**

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**Muddathir Muhammad Ibney Noorani Joomun**

**(M00830556)**

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# 1. Description:

The proposed project is the development of a user-friendly game price comparison website, which aims to empower gamers with information to make cost-effective purchasing decisions. The website will serve as a comprehensive platform where users can search for their favorite games and compare prices across multiple online stores, ensuring they get the best deals available. It will offer an intuitive interface that simplifies the process of finding the most attractive game offers.

## Key Features and Objectives

1. **Real-Time Price Comparison**: Users will have access to real-time pricing information from a diverse array of online gaming stores, ensuring that they always get the most up-to-date deals. Price comparison tools will empower users to compare the costs of a game across multiple stores, guaranteeing that they make informed purchasing decisions.

# 2. Wireframes and Early Prototype Screenshots:

We will create wireframes and early prototype screenshots that illustrate the website's design and user interface. These visual representations will help in the development and showcase the site's navigation, search functionality, and layout.

(Insert wireframes and prototype screenshots here)

# Data Sources:

Our project relies on scraping pricing and game-related data from several online gaming stores. It is essential to maintain ethical and responsible web scraping practices. We intend to respect the guidelines set forth by the websites by referring to their robots.txt files. Here's a breakdown of the data sources and how we plan to interact with them:

1. Steam - https://store.steampowered.com/robots.txt:

Steam is a widely known and trusted gaming platform. We will access its robots.txt file to determine the specific pages and content that we are permitted to scrape.

Steam's robots.txt file will guide us on the frequency and timing of our scraping to avoid overwhelming their servers with excessive requests.

We will only scrape publicly available pricing and game information without violating any terms of service or policies.

2. GOG (Good Old Games) - https://www.gog.com/robots.txt:

GOG is a reputable source for classic and DRM-free games. We will consult their robots.txt file to identify which sections of the website we can scrape.

We will adhere to GOG's guidelines regarding scraping frequency and content access, ensuring that we do not disrupt their website's functionality.

Our scraping activities will be conducted responsibly and within the boundaries set by GOG's terms and policies.

3. Gamivo - https://www.gamivo.com/robots.txt:

Gamivo is a key source for gaming deals. We will refer to their robots.txt file to understand the areas we are allowed to scrape.

We will respect Gamivo's guidelines regarding scraping, ensuring that our actions are not detrimental to their site's performance.

Our scraping will be limited to publicly available pricing and game information, fully abiding by Gamivo's terms and policies.

4. K4G (Keys for Games) - https://k4g.com/robots.txt:

K4G offers a variety of game keys. We will consult their robots.txt file to determine the scope of our scraping activities.

We will follow K4G's guidance regarding scraping frequency and data access, ensuring that our actions do not interfere with the functioning of their website.

Our scraping will be confined to publicly accessible pricing and game-related data, with strict adherence to K4G's terms and policies.

By responsibly adhering to the guidelines outlined in each website's robots.txt file, we aim to conduct our scraping activities in an ethical and non-disruptive manner. This approach will foster a positive and respectful relationship with these websites and contribute to the overall quality and sustainability of our game price comparison website.

If required, we will also implement rate limiting and error handling mechanisms to ensure smooth and ethical scraping operations, further minimizing the impact on the source websites.

# 4. Database Design:

We will implement a robust database design to efficiently store and manage game information, prices, and other related data. The diagram below illustrates the relationships between the various data entities:

(Insert a diagram of the database design)

# 5. MySQL Database Implementation:

We have provided a mysqldump file that contains the implementation of our database design. This file includes the database schema and sample data. You can access the database implementation through the following link: [database\_dump.sql](insert link to the SQL file).

Conclusion:

Our project is dedicated to creating a game price comparison website that enables gamers to find the best deals on their favorite titles effortlessly. We believe this platform will become an invaluable resource for gaming enthusiasts, assisting them in saving money and making well-informed purchases.