Warehouse Management System

Database Management

CMPT 308N-113

Bezos' Indentured Servants

Marist College
School of Computer Science and Mathematics

Submitted To:
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Project Description of *Bezos' Indentured Servants*

Team Name

Name of the Team ----------*Bezos' Indentured Servants*

Github Link

https://github.com/gabrielle-knapp1/Project-1-Database-Man-

Team Members

1. Ethan Morton ---------- ethan.morton1@marist.edu (Team Head)

2. Gabrielle Knapp----------gabrielle.knapp1@marist.edu (Team Member)

Description of Team Members

1. ***Ethan Morton***

   I am a sophomore and I'm majoring in computer science with a concentration in software development. I am minoring in mathematics, information technology, information systems, and cybersecurity. I know C#, Java, Python, HTML, CSS, JavaScript, a little bit of SQL, XML, and Lua. I am from Granby, Connecticut and I enjoy playing tennis, hanging out with my friends, and playing games. Some clubs I'm involved in are campus ministry, computer society, games society, and club tennis. Together we chose me to be the Team Head because of my ability to manage communications.

2. ***Gabrielle Knapp***

   Gabrielle Knapp is a sophomore at Marist College majoring in Computer Science with minors in Spanish and Economics. She comes from Carlisle, Pennsylvania and has been enjoying her time adjusting to college life. Activities she currently is participating in include intramural badminton and the games society. In her free time, she loves reading,

going on long walks, and playing board games. She is excited to see how she learns and grows her programming skills throughout this class and her entire time at Marist. Gabrielle is excited to bring her hardworking, can-do attitude to her group in this project for her Database Management class. She chose to work with Ethan on this project because she has enjoyed working with him in other classes, including working together on their project in Dr. Sadeghi's Intro to Programming class. Together, as a pair, they chose Ethan to be the Team Head because of his excellent ability to manage communications.

Project Objectives

Summary

We have selected project sample 4, the warehouse management system. The warehouse management system (WMS) provides an organized way of storing different products and elements in a warehouse. You can consider a library as a warehouse, which maintains books' details and user libraries. A general WMS stores details of name and identification number of products, their store time, the required storage condition, price, weight, height, etc. Following this, this system allows guest users to search for different content and request to borrow/buy them. Our WMS will store the data of different user types in distinct SQL tables.

Modules

- Admin Roles
    - Admin has login (username/password) and ability to change that login
    - Admin can remove users from WMS
    - Admin has ability to add a guest user with a login (guest has limited abilities)
        - Guest user cannot define/remove other users
    - Admin can add, delete, and edit items to WMS with various details
    - Admin can view, accept, and reject the list of borrowing requests
- User Roles
    - Users can search through items in WMS depending on various item details
    - Users have ability to save favorite items
    - Users can request to borrow/buy specific items at specific times
    - Users have ability to view the history of borrowed/bought items
- WMS should be user-friendly software

    - Welcome page
    - Menu with all functions
    - All functions in a tabular format
    - Well-organized list of requested items
    - Exit function with friendly goodbye
    - Should show warnings IF:
        - The Admin user tries to add a new item to the library with an existing ID
        - If a guest user tries to borrow more than 3 items
        - A user search request returns null items
- WMS should protect User's information/data
    - WMS passwords & recorded info should be Ciphered using Caesar Cipher Method

Review the Related Work

1) BR Williams Warehouse Management System link

a) Positive Aspects

i) Inventory history and transaction logs.

b) Negative Aspects

i) Uses barcodes to scan which automatically update the database with the correct information.

2) Koha Management System link

a) Positive Aspects

i) Intuitive navigation for users.

b) Negative Aspects

i) Built for library management rather than warehouse management.

3) ShipHero Warehouse Management System link

a) Positive Aspects

i) Users can return items.

b) Negative Aspects

i) Multi-carrier shopping: searching the same items from different stores won't work in our project.

Merits of Project

Merits:

- The WMS will organize all of the items in the warehouse and will allow users to easily access a list of all of these items and their details
- We plan on implementing the positives of other Warehouse Management Systems, including the implementation of detailed inventory logs, allowing for clear details about returning items, and creating an intuitive navigation for users.
- The WMS will clearly differentiate the roles of User and Admin, and allow Admin complete control over the warehouse and the privileges of the users.