CST:499 Week 1 Assignment

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CST 499: Capstone for Computer Software Technology

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1. **New user registration that includes account and profile creation.**

*New users should be able to click on a link on the website’s home page to create a new account; the link will direct them to a page to create a username and password and ask for their name, phone, and email.*

1. **Each new user should have a unique ID associated with a password. The system should guard against two users using the same ID for registration.**

*When new users create their unique username and password, that information with be stored on the site’s database, and a error message will be displayed to new users if they create a username that is not unique* (Tsui et al., 2018). *The password must contain at least seven characters, one lowercase letter, one uppercase letter, one number, and one special character to increase secuirty of the account* (Lijun et al., 2015)*.*

1. **Profiles must include some key information about the applicant including name, phone, email, and any other information you may see necessary.**

*When users create a new account their name, phone, and email will be on their profile.*

1. **Post registration, users can login to the system at any time using the ID and the password created during the registration process.**

*Once the new user has created an account, they can use the login feature on the website to be taken to the login page, which will ask for their unique user ID and password. The unique username and password will be matched with the names on the server, and if they match, the user gets access to the account; if the information does not match, then the user will be displayed an “Incorrect username/password, please try again” message* (Chen et al., 2010).

1. **Online courses run through three semesters per year (spring/summer/fall), and students can list the courses that will be offered during any semester, as not all courses will be offered in every semester.**

*A course catalog will be created on the servers that contain all available classes that will be taught. The classes shall be divided into three semesters spring, summer, and fall. Administrators will coordinate which classes will be present during each semester and have admin access to make edits as necessary. Student accounts can also access the course list and see what classes are being held.*

1. **Each course should have a maximum number of enrollment that may be different depending on the course.**

*Each course in the catalog stored on the server will have a maximum number of enrollments allowed, which the admin accounts can alter since they will vary depending on the class.*

1. **If a user wants to enroll into a course and the course is full, the student can add themselves onto a waiting list.**

*A waitlist add-on will be added to any class that has reached maximum enrollment. The waitlist will contain the names of the students and prioritize the student by the earliest sign-up date.*

1. **A user can also cancel the enrollment from any course that they are enrolled in, and the system should inform the first in the waiting list (if any) that they can enroll into the class.**

*A student account can disenroll from a class by hitting a cancel button next to a signed-up class. Suppose a student in the enrolled class removes themselves from the class. In that case, the waitlist will automatically message the student in the number 1 position if they want to attend, and if the response is affirmative, then add that student’s profile to the class and shift every other student on the waitlist by one.*

**Reference page**

Chen Gong, Guosen Yue, & Xiaodong Wang. (2010). A practical message-wise unequal error protection coding scheme. *2010 IEEE International Symposium on Information Theory Proceedings (ISIT)*, 928–932. https://doi.org/10.1109/ISIT.2010.5513487

Lijun Zhang, Yiming Liu, & Qingbing Ji. (2015). The password security analysis of network forums. *2015 IEEE 16th International Conference on Communication Technology (ICCT)*, 878–882. <https://doi.org/10.1109/ICCT.2015.7399965>

Tsui, F., Karam, O., & Bernal, B. (2018). [*Essentials of software engineering*](https://uagc.instructure.com/courses/120445/modules/items/6132040)(4th ed.). Jones & Bartlett Learning.

GitHub Active Account Verification

A screenshot of a computer

Description automatically generated