Lab 2

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1 System Requirements

3.1 Web Pages, Theming, and Layout (O: Kone-Sow)

3.1.2 Website Layout

The website must provide a clean and responsive layout for the home page that aligns with the Minnow prototype.

3.1.2 Color Coordination

The website must maintain a consistent color scheme throughout all pages.

3.1.3 Font Stylization

The website must maintain a consistent font style throughout all pages

3.1.4 Consistent Spacing and Margins

The website must maintain consistent spacing and margins throughout all pages.

3.2 Course Selection Requirements (O: Montgomery M1: Ray)

3.2.2.1 Course Selection

The ability for student users to select between courses after logging in must be provided.

Student users must be provided with the ability to select between courses after logging in.

3.2.2.2 Course Availability/Course Assignment

A course entry must appear available for selection on a student's menu only after being assigned by the instructor.

3.2.2.3 Course Sub Menu

A course entry must feature a sub-menu featuring the available gamified modules for that course.

3.3 Module Access Requirements (O: Synenko M1: Ray)

3.3.1 Access to Gamified Modules

The ability for games and activities to be accessed within course-related gamified modules must be provided.

3.3.2 Access to Activities Associated with Module

Each module must provide access to activities associated with that module.

3.3.3 Restriction of Access to other Modules

Each module must not provide access to any other activity associated with other modules.

3.4 Account & Authentication Requirements (O: Klaus M1: Synenko)

3.4.1 Sign-In Attempts

The user will have the ability to sign into their account with unlimited attempts.

3.4.2 Account Access

If the user's account is enabled for 2FA, the (login) window will provide a text field for the code (via email, not app) after the password is entered.

While logged in, the user will have the following abilities:

3.4.3 Log Off

The user will be able to log off.

3.4.4 Password Requirements

When a user changes or sets their password, it must meet the established constraints.

3.4.4.1 ASCII Requirements

The password will consist only of visible (printable) ASCII characters.

3.4.4.2 Minimum and Maximum Character Requirements

The number of characters allowed will be between 8 and 16.

3.4.4.3 Password Content Requirements

The password will include at least 1 capital letter, 1 lowercase letter, 1 number, and 1 special character.

3.4.5 Failure to Meet Password Requirements

If a password does not meet the requirements set in 3.4.4, the system will not permit the user to change or set their password to that value.

3.5 Gamified Module Interaction Requirements (O: Ray)

There must be capability for the student users to interact with integrated course-related gamified modules.

3.5.1 Clicking icons and buttons

All buttons and icons must be clickable and functional, as well as visually and auditorily responsive if applicable.

3.5.2 Drag and Drop

In modules with draggable items, they must be able to be dragged and dropped into designated areas.

3.5.3 Summarization and Guidance

All summaries must be readable and should include either gentle corrections to the user's incorrect answers or praise for the user's correct answers.

3.6 Bingo Game Requirements (O: Yates)

The system must provide a bingo game which will provide the student with the ability to practice arithmetic operations.

3.6.1 Operations

Operations must include multiplication, division, addition, and subtraction.

3.6.2 Scoring

The Bingo Game must provide a score to further engage the student.

3.6.3 Add-Ons

The Bingo Game must provide additional questions other than the 24 required questions for the student to practice.

3.7 Matching Game Requirements (O: Montgomery)

As one of its game modules, the system will provide a matching game which will provide the student with the ability to practice scientific vocabulary.

3.7.1 Term Bank

The matching game will randomly draw questions from a bank containing definitions and their respective terms. Terms will be grouped into three separate tiers of difficulty.

3.7.2 Skill Meter

The matching game will provide a hidden skill meter, which will influence the difficulty of terms chosen.

3.7.3 Answer Reaction

Correct answers will increase the skill meter, allowing for more difficult questions to be chosen. Incorrect answers will decrease the skill meter, restricting access from more difficult questions in favor of easier questions.