Requirements

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1. Functional Requirements

- **Requirement ID**: 01a

  - **Requirement Type**: Functions

  - **Description**: This product will be a basic adventure style game.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The user will be able to navigate the world, fight monsters, gather treasure, and collect achievements.

  - **Priority**: 5

- **Requirement ID**: 01b

  - **Requirement Type**: Functions

  - **Description**: This product will ask the user questions to facilitate game play.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The user will need to answer questions from a variety of different standards in order to fight monsters, gain treasure, and progress through the game.

  - **Priority**: 5

- **Requirement ID**: 01c

  - **Requirement Type**: Functions

  - **Description**: This product will implement a character selection feature.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The user will be able to customize their character.

  - **Priority**: 5

- **Requirement ID**: 01d

  - **Requirement Type**: Functions

  - **Description**: This product will implement a fighting style selection feature.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The user will be able to select their fighting style (Math-based or ELA-based).

  - **Priority**: 5

- **Requirement ID**: 01e

  - **Requirement Type**: Functions

  - **Description**: This product will implement an inventory system that will keep track of a player's treasure.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The user will be able to view their inventory to gain an accurate representation of the amount and variety of treasure they have.

  - **Priority**: 5

- **Requirement ID**: 01f

  - **Requirement Type**: Functions

  - **Description**: This product will contain an achievements page.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The user will be able to view their achievements page and view trophies that will appear as they progress through the game.

  - **Priority**: 4

- **Requirement ID**: 01g

  - **Requirement Type**: Functions

  - **Description**: This product will implement a stats page.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The user will be able to view their stats page to view info such as monsters slain, treasure found, questions answered, etc.

  - **Priority**: 4

- **Requirement ID**: 01h

  - **Requirement Type**: Functions

  - **Description**: This product will implement a shopping feature.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The user will be able to spend the treasure that they find along the way at the shop.

  - **Priority**: 3

- **Requirement ID**: 01i

- **Requirement Type**: Functions

- **Description**: This product will implement Non-Player Characters (NPCs).

- **Originator**: Alena Durel

- **Fit Criterion**: The user will be able to talk to and interact with NPCs throughout the world.

- **Priority**: 2

- **Requirement ID**: 01j

    - **Requirement Type**: Functions

    - **Description**: This product will implement a boss rush mode.

    - **Originator**: Alena Durel

    - **Fit Criterion**: The user will be able to choose to play a boss rush mode which will allow them to continuously fight against monsters while practicing questions for a specific standard.

    - **Priority**: 5

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1. Look and Feel Requirements

- **Requirement ID**: 02

    - **Requirement Type**: Appearance and Style

    - **Description**: This product's appearance shall be engaging and exciting to an elementary aged student.

    - **Originator**: Alena Durel

    - **Fit Criterion**: An average 3rd or 4th grader would find the product's appearance engaging and fun and would rate it at a 4 out of 5 on a Likert scale (1 being least engaging and 5 being the most).

    - **Priority**: 3

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3. Useability Requirements

- **Requirement ID**: 03a

    - **Requirement Type**: Ease of Use

    - **Description**: This product will be usable by people with basic computer operation skills.

    - **Originator**: Alena Durel

    - **Fit Criterion**: Someone unversed in technical computer operations will be able to easily use and navigate this program.

- **Priority**: 4

- **Requirement ID**: 03b

  - **Requirement Type**: Understandability

  - **Description**: This basic functions of this program will be easily understandable to an average 3rd or 4th grade student.

  - **Originator**: Alena Durel

  - **Fit Criterion**: After completing a tutorial, a 3rd or 4th grade student will be able to play this game with minimal assistance from an adult.

  - **Priority**: 4

- **Requirement ID**: 03c

  - **Requirement Type**: Personalization

  - **Description**: This product will contain a feature that will allow the user to customize their character.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The user will be able to choose between two base sprites (a boy and a girl) and will be able to customize the hair, skin, and shirt color of their character.

  - **Priority**: 5

- **Requirement ID**: 03d

  - **Requirement Type**: Personalization

  - **Description**: This product will contain a feature that will allow the user to customize their fighting style.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The user will be able to choose between a Math-based or ELA-based fighting style. A Math-based fighter will get a higher percentage of math questions while an ELA-based fighter will get a higher percentage of ELA questions.

  - **Priority**: 5

4. Performance Requirements

- **Requirement ID**: 04a

  - **Requirement Type**: Precision or Accuracy

  - **Description**: This product will accurately interpret user input and keep track of quantitative data such as a player's amount of money or stats.

- **Originator**: Alena Durel

- **Fit Criterion**: Key input will be interpreted correctly by the program, ie. if 'W' is pressed the player will move forward. In addition to handling ky input, this program will also ensure that when quantitative data is manipulated it will not be corrupted or incorrect.

- **Priority**: 5

- **Requirement ID**: 04b

  - **Requirement Type**: Reliability and Availability

  - **Description**: This product will available to the user until they exit the program.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The product will only close once the user clicks the exit button.

  - **Priority**: 2

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5. Maintainability and Support Requirements

- **Requirement ID**: 05a

  - **Requirement Type**: Maintenance Requirements

  - **Description**: Bug fixes will be provided to the product as issues arrive.

  - **Originator**: Alena Durel

  - **Fit Criterion**: Bugs will be fixed and patches will be applied to the product as they are needed.

  - **Priority**: 2

- **Requirement ID**: 05b

  - **Requirement Type**: Adaptability Requirements

  - **Description**: This product is expected to run under Windows, Linux, or MacOS.

  - **Originator**: Alena Durel

  - **Fit Criterion**: This program will be runnable on Windows, Linux, and MacOS systems.

  - **Priority**: 3

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6. Security Requirements

- **Requirement ID**: 06a

  - **Requirement Type**: Privacy Requirements

  - **Description**: This product will not store PPI (Private Personal Information) data. If this is changed in a later feature update, data will be stored in a secure way.

- **Originator**: Alena Durel

- **Fit Criterion**: No PPI data will be stored for this product.

- **Priority**: 5

- **Requirement ID**: 06b

  - **Requirement Type**: Privacy Requirements

  - **Description**: This product will notify users of changes to its information policy.

  - **Originator**: Alena Durel

  - **Fit Criterion**: Users will be informed if a feature is introduced that will collect data or change the current information policy.

  - **Priority**: 5

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7. Cultural Requirements

- **Requirement ID**: 07

  - **Requirement Type**: Diversity and Inclusion

  - **Description**: This product will include a character customization feature that will allow the game to be more inclusive of different users.

  - **Originator**: Alena Durel

  - **Fit Criterion**: The character selection will allow the user to select things such as hair color and skin color.

  - **Priority**: 4