Requirements

Requirement ID: 1

Type: Functional

Description: The basic functionality of the project should include a working randomized maze generator that, upon traversal, has the user answer a myriad of riddles based on the difficulty setting they have chosen.

Rationale: The requirement is justified as without the basic functionality of the project, it as a whole it would fail and be incomplete.

Fit Criterion: A measurable output to see if the requirement is met would be to run the game and see if a maze pops up, and to see if while completing a maze a riddle appears.

Priority: 1

Dependencies:

Requirement ID: 2

Type: Look

Description: The product must have a clean and clear look.

Rationale: If the maze looks disjointed and incomprehensible then the user will have an even more difficult time traversing the maze; therefore, having a clear and understandable design for the project is necessary.

Fit Criterion: A measurable way to test if this is met would be to have a sample of the target audience for this product test out the product for the first time, and then receive feedback.

Priority: 2

Dependencies:

Requirement ID: 3

Type: Ease of Use

Description: Project should be fairly simple to understand and use. Users should be able to type out or select settings and/or movements in the maze.

Rationale: This requirement is justifiable as if the project is overly complex in how it works it could confuse users causing frustration and removing desire to play the game.

Fit Criterion: A measurable way to test if this is met would be to have a sample of the target audience for this product to test out the product for the first time, and then receive feedback.

Priority: 4

Dependencies: 2, 4

Requirement ID: 4

Type: Personalization

Description: Let users decide the types of riddles they want to solve.

Rationale: This requirement is justifiable as it provides a form of difficulty and personalization for the user. It allows the user to decide the kind of riddles they want to solve and gives a sense of difficulty if they are choosing a type they are unfamiliar with.

Fit Criterion: You can test for this by having the user select a riddle type and then once a riddle pops up make sure it fits with the typing selected.

Priority: 3

Dependencies:

Requirement ID: 5

Type: Learning

Description: Make sure the user is learning throughout their use of the program.

Rationale: The project has riddles that could help provide learning experiences for the user and the project as a whole could help as a brain exercise for users.

Fit Criterion: You could measure this by seeing how many attempts a user takes to solve a riddle.

Priority: 5

Dependencies: 1, 4

Requirement ID: 6

Type: Speed and Latency

Description: The program will respond to input at a timely manner.

Rationale: The project will be gaining a lot of inputs throughout the maze and so every input should have a fast response time to ensure rounds don't take forever.

Fit Criterion: Measurable by how long an input takes to take effect.

Priority: 6

Dependencies: 1

Requirement ID: 7

Type: Understandability and Politeness

Description: The instructions and riddles should be understandable in their format and polite in their wording regardless of if you win or lose.

Rationale: It is important that the maze game is enjoyable and making instructions unclear or being rude to players could push away players.

Fit Criterion: A measurable way to test if this is met would be to have a sample of the target audience for this product to test out the product for the first time, and then receive feedback.

Priority: 15

Dependencies:

Requirement ID: 8

Type: Precision or Accuracy

Description: The project should be accurate in its answers.

Rationale: The project rationally should have accurate answers.

Fit Criterion: Could research answers for riddles.

Priority: 7

Dependencies: 5, 1

Requirement ID: 9

Type: Robustness or Fault-Tolerance

Description: Inputs should have a level of precision to be accounted for.

Rationale: The project should count answers with capital letters as correct answers.

Fit Criterion: Check to see if the answer to a riddle can be read both as capital and lowercase.

Priority: 8

Dependencies: 1, 8

Requirement ID: 10

Type: Scalability or Extensibility

Description: The program will be capable of taking on more riddles and be able to use user created documents for riddle creation.

Rationale: Making the program be able to obtain an assortment of riddles increases its scalability and lets it become bigger.

Fit Criterion: Test by making multiple riddle input documents and seeing if they work.

Priority: 9

Dependencies: 1

Requirement ID: 11

Type: Longevity

Description: The game will have a long life and continue to be played after release.

Rationale: The maze should still be getting played or new downloads after release.

Fit Criterion: Normally a way to test this would be to have the published site keep track of how many people download the game; however, I'm unsure how to do that.

Priority: 13

Dependencies:

Requirement ID: 12

Type: Maintainability and Support

Description: After release the maze should still be getting support and bugfix updates

Rationale: Upon release, any bugs found after release should be patched as soon as possible.

Fit Criterion: Check if any bugs appear after release and fix them.

Priority: 10

Dependencies:

Requirement ID: 13

Type: Access

Description: The app will have some access to computer files but only within the folder for the app. It will have read permissions and will use said permissions to generate riddles.

Rationale: The app needs some permissions to function and generate riddles.

Fit Criterion: Ensure that the app isn't pulling data from other files

Priority: 11

Dependencies: 1, 10

Requirement ID: 14

Type: Integrity

Description: The app will not make changes to sensitive data.

Rationale: The app should only modify a small spot on the computer and shouldn't mess with sensitive data.

Fit Criterion: Ensure that the app isn't modifying data from other files

Priority: 12

Dependencies:

Requirement ID: 15

Type: Convenience

Description: Program should be convenient to operate and simple to understand.

Rationale: The app layout should be comfortable to use.

Fit Criterion: Have testers give feedback on if UI and app layout was easy and comfortable.

Priority: 14

Dependencies: 2

Requirement ID: 16

Type: Accessibility

Description: The problem will be easily accessible and easy to use.

Rationale: Seeing as some of the consumers for this game would be elderly, the game must be easy to control so that as many people as possible may use it.

Fit Criterion: Get a couple of elderly testers to see if the game is accessible for them.

Priority: 16

Dependencies:

Requirement ID: 17

Type: Capacity

Description: The game will take up a small amount of storage capacity.

Rationale: Anyone regardless of computer storage size should be able to run the program, and so, the game must be properly condensed so as to not take up a large storage capacity.

Fit Criterion: Measure the storage the game takes up and compare it to other similar games.

Priority: 17

Dependencies:

Requirement ID: 18

Type: Privacy

Description: Ensure the privacy of the user is maintained and not compromised.

Rationale: Game should only have access to specific files and shouldn't compromise the privacy of other files.

Fit Criterion: Check to ensure only files pertaining to the game are interacted with

Priority: 18

Dependencies: 1, 3, 14

Requirement ID: 19

Type: Immunity

Description: Ensure the program is immune to bugs and cannot be tampered with in a way that breaks the system.

Rationale: The game must be as close to bug free as possible, as bugs cause issues for consumers.

Fit Criterion: Rigorous testing and checks must be done to ensure everything is functional.

Priority: 19

Dependencies: 1

Requirement ID: 20

Type: Cultural

Description: The product will not be offensive.

Rationale: Program should be able to be appreciated by multiple cultures.

Fit Criterion: Ensure the riddles are not offensive by making sure each riddle is fact checked and

that it does not mention any controversial topics.

Priority: 20

Dependencies: 1