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Use Cases & Requirements

Game idea: Fruits and Vegetables Concentration Game

The game will consist of a grid of cards laying face down containing matching pairs for a variety of fruits and vegetables. The goal of this game is to find as many matching pairs from memory as possible. The player with the most matching pairs will win. When a player finds a matching pair of fruits or vegetables, s/he will have the option of reading a short description, nutritious facts, and country of origin regarding the food item. Players are encouraged to play the game multiple times to discover all the facts about various fruits and vegetables.

Use cases:

The user wants to play a game alone

- The user arrives at a menu with two options, 'Single Player' and 'Multiplayer'. The user will select 'Single Player' and create a new game session. The user will have an option of setting the initial grid size of the game ranging from a 4x4 grid to an 8x8 grid. The grid dimensions will be selected by a form, which will only contain even numbers from 4 to 8. Once the grid dimensions are set, a grid of cards will appear face down. The user will continuously select two cards per turn, hoping for a match, and complete the game when all card pairs have been retrieved.

The user wants to play a game with other people

- The user arrives at a menu with two options, 'Single Player' and 'Multiplayer'. The user will select 'Multiplayer' and create a new game session. The game session contains a short invite code which can be sent to friends. The user will wait in a lobby for other players, and select 'Start' when the group of players are ready. The user will have an option of setting the initial grid size ranging from a 6x6 grid to an 8x8 grid (similar to above). Once the grid dimensions are set, a grid of cards will appear face down. The user and other players take turns selecting two cards and hoping for a match. Once all card pairs have been retrieved, the user is notified

whether s/he won, lost, or tied with other players.

The user is interested in a particular fruit or vegetable pair

- While playing the game, the user matches a pair of cards, and is interested in the food item on the cards. The user can click on the card pair to read a short description about the food item. The user is interested in the health benefits of the food item and selects the 'read more' button. The user finds the top rated recipes containing the food item which are presented as links to other websites.

The user wants to donate to a charity while playing

- The user completes a round of the Food and Vegetables Concentration Game. The user finds the status of the game (win, lose, or tied) and will see an interesting fact listed below. The interesting fact will contain a story about a food shortage along with the importance of nutrition. The user will then be asked for a small donation of under \$3. If the user wants to donate, they will be taken to an external site where financial information can be submitted. If a successful donation is made, a confirmation email will be sent out.

The user wants to 'peek' at a grid of cards

- The user is interested in winning the Food and Vegetables Concentration Game. When the grid of cards is full, the user has the option of clicking a button labeled 'peek'. Once clicked, the user will have the option to pay a 50¢ donation to look at all cards for 5 seconds. If selected, the user will be taken to an external site for financial information. If a successful donation is made, a confirmation email is sent out and the grid of cards will be visible to the user for 5 seconds.

Requirements:

- ❖ The system must allow players to modify the height/width of the card grid through a simple drop-down menu. The drop-down menu will contain the numbers 4, 6, and 8 for dimensions. Both the height and width will take the user-selected value.
- ❖ The system must keep track of how many card pairs each team or player has in their possession.
- ❖ The system must determine a win, lose, or tie based on a comparison of card pairs between teams and/or players
- ❖ The system must have a method of inviting other players to a game session through some type of code-word
- ❖ The system must keep track of how many moves a player takes while playing in single player mode
- ❖ The system must allow single player and multiplayer game play

- ❖ The system will unobtrusively display ads during game play
- ❖ The system must support the major payment options such as PayPal and Visa for donations
- ❖ The system will have a simple interface which will not interfere with the game experience
- ❖ The system must support different types of hardware such as tablets, desktop computers, and smartphones