SDEV 120 – M05 Exercise 1 Plan

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**Jeopardy Game Program Plan**

1. **Number of Questions:**
   * 4 categories: Fruits, Vegetables, Grains, Meats
   * Each category has 4 questions, for a total of 16 questions.
2. **Timing Constraints:**
   * 30 seconds per question: Implement a timer that starts as soon as a question is displayed.
3. **Question Format:**
   * Questions will be phrased to require short, concise answers (e.g., "What is an apple?").
4. **Game Roles:**
   * Contestant: The player who selects categories and answers questions.
   * Moderator: Oversees the game flow, verifies answers, and manages the score.
5. **Scoring System:**
   * Correct Answer: +5 points.
   * Incorrect Answer: -5 points.
   * No Answer: Zero points change (optional, depending on your game rules).

**Plan the Game Flow (Detailed)**

1. **Start Screen:**
   * Display a welcome message: "Welcome to Food Jeopardy!".
   * Show the game rules: "Select a category and question value. You have 30 seconds to answer each question. Correct answers earn +5 points, and incorrect answers lose -5 points."
   * Start button to begin the game.
2. **Category Selection:**
   * Display the 4 categories: Fruits, Vegetables, Grains, Meats.
   * Indicate the point values for each question (e.g., 5, 10, 15, 20 points).
   * Allow the contestant to choose a category and a point value.
3. **Question Display:**
   * Show the selected question.
   * Start a 30-second timer for answering.
4. **Answer Input:**
   * Provide an input field for the contestant's response.
   * Allow submission before time runs out or automatically end the question after 30 seconds.
5. **Evaluate Answer:**
   * Check the contestant's response against the correct answer.
   * Update the score based on the evaluation (+5 for correct, -5 for incorrect).
   * Provide feedback to the contestant (e.g., "Correct!" or "Incorrect! The correct answer was...").
6. **Loop Back to Category Selection:**
   * Check if there are any remaining questions. If yes, return to step 2 (Category Selection).
   * If no, proceed to the End Game phase.
7. **End Game:**
   * Display the final score.
   * Announce the winner or display a congratulatory message.

**Document the Logical Steps (Sequence, Selection, Loop)**

1. **Sequence:**
   * The game follows a linear sequence from Start Screen → Category Selection → Question Display → Answer Input → Evaluate Answer → Loop or End Game.
2. **Selection:**
   * Category Selection: The contestant chooses from 4 categories.
   * Evaluate Answer: Determine whether the answer is correct or incorrect.
   * End Game Decision: If all questions are answered, proceed to the End Game; otherwise, continue the loop.
3. **Loop:**
   * Return to Category Selection until all questions are completed.

**Additional Suggestions**

* Add a “Skip Question” Option: Consider allowing the contestant to skip a question, which would neither add nor deduct points but move to the next question.
* Add Sound Effects or Visual Feedback: Make the game more interactive with sound for correct/incorrect answers or a ticking timer.

**Flowchart:**

**A diagram of a question

Description automatically generated**