**Hardware**

1. **PocketBeagle (Main Controller)**
   1. Inputs: User button presses
   2. Outputs: LED screen display, single-color LEDs
2. **Display:** To show the quotes.
3. **Input Module:** Contains buttons for users to select who they think said the quote.
4. **LED Module:** Displays the result (e.g., green for correct and red for incorrect).
5. **Quotes Repository:** A storage (could be a simple text file or database) containing the quotes and the correct answers.

**Python Classes (Software)**

1. **QuoteRepository Class:** Manages the list of lyrics and their respective authors.  
   Functions:  
   `loadQuotes()`: Load quotes from storage into memory.  
   `getRandomQuote()`: Fetch a random quote for the game.  
   `getAnswer(quote)`: Retrieve the author of the provided quote.
2. **DisplayManager Class**: Manages the display module.  
   Functions:  
   `showQuote(quote)`: Display the given quote on the screen.  
   `showResult(isCorrect)`: Display the result message (Correct/Incorrect).
3. **InputManager Class:** Manages the user's inputs.  
   Functions:  
   `waitForButtonPress()`: Wait and detect which button (Shakespeare or Taylor Swift) is pressed by the user.

1. **LEDManager Class**: Manages the LED outputs.  
   Functions:  
   `showCorrect()`: Illuminate the LED in green (or the chosen color for correct).  
   `showIncorrect()`: Illuminate the LED in red (or the chosen color for incorrect).

1. **GameManager Class**: This class oversees the game flow and utilizes all other classes within it.  
   Functions:  
   `startGame()`: Begins the game loop.  
   `getNextQuote()`: Retrieves the next random quote.  
   `getUserGuess()`: Gets user's guess through the button press.  
   `checkRealAnswer()`: Compares the user's guess with the actual answer from repository.  
   `showResult()`: Uses the LED to provide feedback on the user's guess. Green LED Signifies the guess is correct, red LED signifies it is incorrect  
   `resetForNextQuestion()`: Reinitiates for the next question (clears display).

**Order of events:**

1. `GameManager` initiates the game using `startGame()`.
2. `QuoteRepository` loads the quotes using `loadQuotes()`

**In the game loop (repeated after every round/question):**

1. `getNextQuote()` fetches a random quote.
2. `DisplayManager` displays this quote on the LED screen using `showQuote()`.
3. `getUserGuess()` waits for the user's input.
4. `checkRealAnswer()` checks if the user's guess matches the actual answer.
5. Depending on the result, `showResult()` displays the appropriate LED color.
6. `resetForNextQuestion()` clears the display and prepares for the next quote.

**Flow diagram**

