Love Test Calculator (DESIGN)

Requirements

- Inputs

	Constraints	DataType
→ firstPlayerName	$2 \leq$ CharLength ≤ 100	String
→ SecondPlayerName	$2 \leq$ CharLength ≤ 100	String

- Outputs

→ An ~~array~~ list of ~~objects~~ key-value representing a character-count pairs of all characters of the combined words (names)

e.g. firstPlayerName = John
SecondPlayerName = Jane

"JohnLovesJane" → is the combination
There are 2J's; 2o's; 1h, 2n's, 1l, 1V, 2e's, 1a

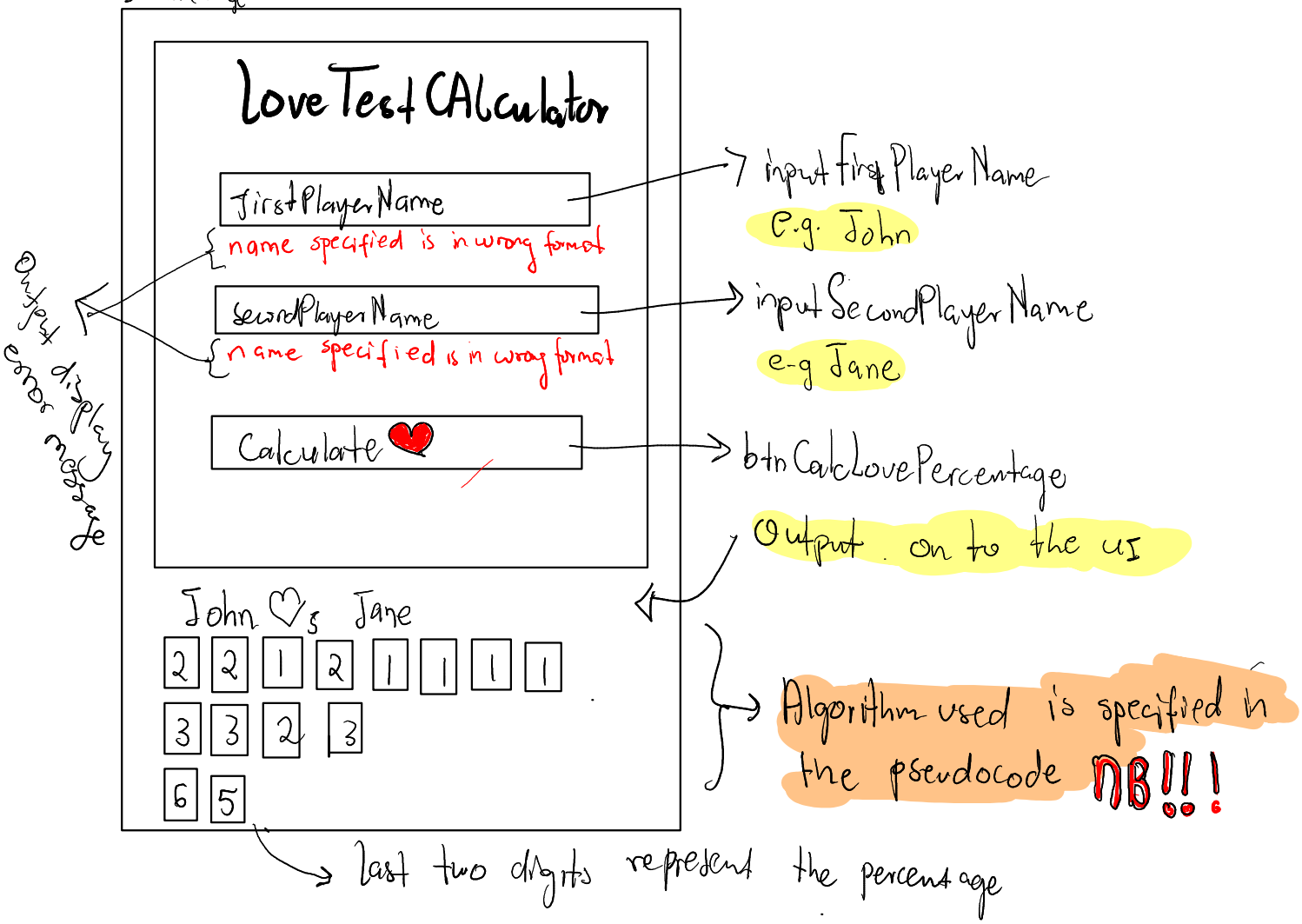
thus the corresponding list will be

[{character: 'J'; Count: 2},
{character: 'o'; Count: 2},
{character: 'h'; Count: 1},
{character: 'n'; Count: 2},
{Character: 'l'; count: 1},
{character: 'V'; Count: 1},
{character: 'e'; count: 1}
{character: 'a'; Count: 1}]

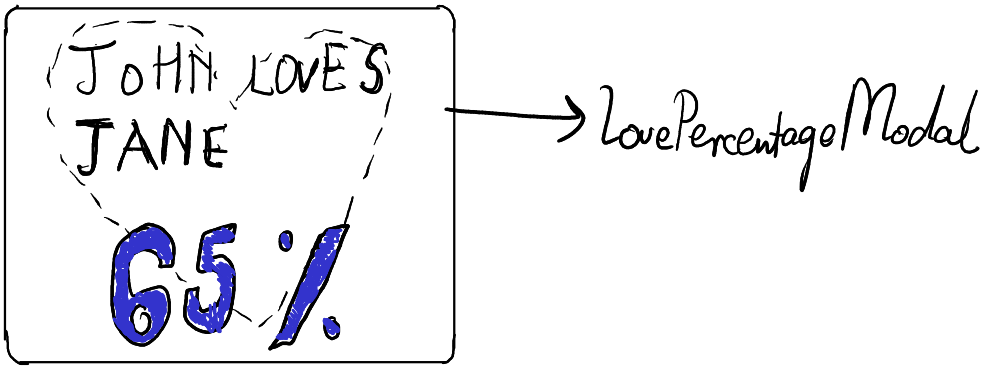
→ The above list is the first list to be displayed in the UI but only the 'count' values

- User Interface

→ main page



→ modals



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- firstPlayerName ← userInput from textbox
- secondPlayerName ← userInput from textbox
- Join the two strings with "loves" in the middle
- Count each character from the string and store each character's Key - "character" and count - "number of each character"
- Extract Only the count values & store in a separate array
- mount the extracted count values to the UI

Main Algorithm : Add First & Last ListElements

- for i = 0 to halfway the countListLength
  - ↳ add the first and the last Elements of the count List length and store the sum in a new array
  - ↳ If there's only one element left in the old array, store it in the new array as it is as the last element and return the new array
  - ↳ If the two most outer elements added together is greater than 10, split the two digits & store each in a new array just next to one another
- return the array

→ Repeat the above algorithm recursively ("I.E. take the output as the inputs & Repeat the process") until only two element are left in the list (Inputs: Counter List → Outputs: Summed pair of CounterList)

→ With each recursive iteration, mount each list to the UI

→ If only two elements are present in the list, display them and the corresponding medal showing love % of each