EECS 2311

VENN DIAGRAM APPLICATION

Software Requirements Document

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Group 10

Venn Diagram Requirements Document

Requirements:

1. Create an app that allows the user to organize information visually so they can see the relation between two or three sets. They would then be able to distinguish similarities and differences.

2. A Venn Diagram consists of circles that intersect which means the sets have similar items in common. Venn diagrams are very useful for comparing and contrasting ideas and objects.

3. A Venn Diagram consists of circles that intersect which means the sets have similar items in common. Venn diagrams are very useful for comparing and contrasting ideas and objects.

4. The app should allow users to change options easily with an easy to navigate GUI, the configuration will respond to all user needs and be as user-friendly as possible.

5. The device can use several buttons that the user can press in order to add, rename or remove an element from a particular set. This system allows the client to create a customizable Venn diagram to suit their needs. Clients will be able to create venn diagrams in the future with features such as:
- Various number of Sets
- Customizable color options
- Custom fonts and sizes
- Save-and-loadable for future editing
- Undo and Redo Mechanism

Use Cases

Use Case 1: Creating a Set

- The user types the name of the set into a textbox.
- A set (circle) appears on the screen with the text.

Use Case 2: Adding an element to a set

- The user selects a desired set(s).
- They type the element name into a textbox.
- The text appears in the set(s) specified.

Use Case 3: Adding another circle

- The user wants to add more topics to compare.

Use Case 4: Changing Label

- The user is able to change the label of their topic if desired.

Use Case 5: Undo/ Redo

- The user is able to undo or redo

User Case 6: Changing font size and type

- The user is able to change the font size or color of elements

Use Case 7: Selecting or adding number of elements

- The user could add a number amount of elements to the Venn Diagram
- The user could also remove elements if desired

Use Case 8: GUI

- The user should find the interface easy to use

● The user should not have any complications with the interface

Use case 9: Saving

● The user can save their data

Use Case 10: Loading

● The user can load data

Test Cases

Acceptance Testing:

Several acceptance criteria for functionality testing are described as follows:

● Created sets are displayed correctly.
● Elements added to a set are displayed correctly.
● The label of the topics could be changed by the user.

Functionality and GUI acceptance Test case 1: Correctly created sets

● Newly created sets are displayed on the screen.
● The new set is placed appropriately to intersect with other set(s).
● Each intersection is a valid and distinct area to add elements.

Functionality and GUI acceptance Test case 2: Correctly displayed elements

● Elements added to a set or intersection of multiple sets are displayed within the. boundaries of the area.
● Elements that are too long have their text wrap around to newline(s).

Functionality and GUI acceptance Test case 3: Correctly add circles

● The Venn diagram will automatically set up to fit all circles.
● The Venn diagram will shape to make all circles intersect.

Functionality and GUI acceptance Test case 4: Correctly change label

- The label could be edited and changed if desired by the user whenever

Functionality and GUI acceptance Test case 5: Correctly use Undo/Redo buttons
- The user should be able to undo and redo
- If the user selects undo, the previous element added should be removed
- If the user selects redo, the previous element removed should be added back

Functionality and GUI acceptance Test case 6: Correctly change font size and type
- The font size should change to the user's choice
- The font type should change to the user's desires

Functionality and GUI acceptance Test case 7: Correctly add a number of elements
- The user should be able to add a list of elements at once or select them to remove if desired

Functionality and GUI acceptance Test case 8: GUI
- The interface should be easy to use
- The app should run without any complications

Functionality and GUI acceptance Test case 9: Correctly save data
- The user should be able to save the data in case they decide to use it in the future

Functionality and GUI acceptance Test case 10: Correctly load data
- The user should be able to load saved data if desired