

Software Requirements Document (Version vF) - Group 17

Members:	Student IDs:
Jawad Ahmed	216340309
Lukas Rose	216489023
Sarwat Shaheen	214677322
Wei Ming Yu	216665424

Venn Diagram Visual Tool

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1. System Purpose

The purpose of the Venn Diagram Visual Tool is to allow users to organize their information visually into three categories, consisting of sections of two circles and a section where the two circles overlap another. Users are able to see the relationships between the sets of information and identify similarities and differences.

All essential features of the system are described in this document.

2. System Features

The System Features of the Venn Diagram Visual Tool.

- User can customize the visual look of the application to their preference
 - Customizable background color of application
 - Customizable menu button colors
 - Customizable menu color
- User is able to customize their Venn diagram to their preference
 - Customizable color of each circle
 - Customizable size of the application/diagram
 - Customizable titles of the visual diagram

- User can add customizable text elements, which include text element title and extra information box, to the three segments of the Venn diagram
 - Text elements can be added
 - Text elements are able to be dragged and dropped to preferred diagram sections
 - Customizable color of text element
 - Customizable color of font
 - User can activate and deactivate textboxes being anchored in fixed positions inside the venn diagram conjunctions
 - User can clear all the work and reset the application
 - User can export a screenshot .PNG file of the Venn Diagram
 - User can Import past projects to continue on
 - User can save their work on local directory
 - User can Undo their recent actions in the application
 - User can Redo their recent actions in the application
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3. Acceptance Requirements

The Acceptance Requirements met by the Venn Diagram Visual Tool.

- User interface includes a two-circle Venn diagram visual with a title, and subtitles above each circle
- Texts of titles are editable to user
- Venn Diagram allows user to add Text Boxes into three separate conjunctions
- Text boxes can be put in fixed places or according to the user's preference and the options can be toggled
- The user interface includes a text adder window, located in the top left corner
- Buttons and text fields in the text adder will allow the

user to do the following:

- 'textbox name' text field
 - Allows users to add a name/title to the textbox to be created
 - green round '+' button
 - Allows user to create a new text box to the left side of the user interface which will then be available for dragging into the diagram sets
 - This button is also replacable with the 'Enter' key when the user is selecting the 'textbox name' text field
 - 'Box Color'
 - Gives user ability to change the color of the textbox to be created
 - 'Font Color'
 - Gives user ability to change the color of the text in the textbox to be created
 - 'More' / 'Less' button
 - Allows user to expand and shrink the text adder window to reveal or hide the extra information text field
 - 'Extra information' text field
 - Allows users to add extra information attached to the textbox to be created
- The textboxes created will allow the user to do the following when hovered over with mouse:
- 'Text Edit'
 - Allows user to edit the textbox name of the textbox hovered over
 - 'Box Color'
 - Gives user ability to change the color of the textbox hovered over
 - 'Font Color'
 - Gives user ability to change the color of the text in the textbox hovered over
 - 'Trashcan'
 - Gives user ability to discard the textbox hovered

over

- The user interface includes right side panel of operates icons which expands when hovered over with mouse
- Buttons in the right side panel will allow the user to do the following:
 - 'Anchoring'
 - Allows user to turn anchoring on and off
 - When anchoring is on, text boxes will move to preprogrammed positions when dragged within the circles and the screen will stay maximized. This also means only a fixed amount of text boxes can be dragged into each region.
 - When anchoring is off, text boxes can be dragged anywhere the user prefers and the screen can be resized according to the user's preference
 - 'Screenshot'
 - Lets users save a screenshot image, default in .png file format, of the diagram which will be saved in the directory from where the program was run or of users choice
 - 'Reset'
 - Allows users to clear all user action and reset the application to it's default state
 - 'Import'
 - Allows users to open and load an exisiting venn diagram project file
 - 'Export'
 - User can save the project process in a text file which can then be opened again through the 'Import' function
 - 'Undo'
 - Lets user undo their latest action in the application window
 - 'Redo'
 - Lets user redo their latest redo action in the application window
 - 'Compare'
 - Allows users to compare two different venn diagram

projects in these aspects:

- Comparing title of the diagram
 - Comparing circle titles
 - Comparing textbox texts
 - Comparing textbox positions
(left, right, centre)
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- 'Right Circle Color'
 - Gives user ability to change the color the right circle of the diagram
 - 'Left Circle Color'
 - Gives user ability to change the color the left circle of the diagram
 - 'Background Color'
 - Gives user ability to change color of the background of the application
 - 'Button Color'
 - Gives user ability to change color of the buttons in the application
 - 'Text Adder Background'
 - Gives user ability to change color of the text adder, located in the left top corner, background
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- Text boxes are held either in the section it is dropped into by user, or the preprogrammed positions depending on whether anchoring is on or off.
 - Text boxes exist in a list on the left side of the interface prior to dragging into diagram.
 - The different circles have the same radius.
 - The circles have a set radius (depending on the screen size).

4. Use Cases

The steps involved to perform the implementation of a user-personalized venn diagram are as listed below.

- Changing the left circle color to green
 1. Hover the mouse above the right side panel
 2. Click the 'Left Circle Color' color picker
 3. Click the green color from the color palette

The left circle color is now green

- Adding a new text box to the universal list (list on the left side of the window)
 1. Click on the green round '+' button located in the text adder window in the top left of the window.

Text Box is added to Universal List with no name

- Adding 5 new text boxes named 'box 1-5' to the universal list (list on the left side of the window)
 1. Click on the text field beside the '+' button located in the text adder window in the top left of the window
 2. Enter 'box 1' into the text field
 3. Click the 'Enter' key on keyboard
 4. Repeat steps 2 and 3 for the rest of the texts

Five new text boxes are added to Universal List with texts 'box 1-5'

- Adding a blue text box named 'Name' with extra information of 'Date of Birth' with white text
 1. Click on the text field beside the '+' button located in the text adder window in the top left of the window
 2. Enter 'Name' into the text field
 3. Click the 'Box Color' and select Blue
 4. Click the 'Font Color' and select White
 5. Click the 'More' button
 6. Enter 'Date of Birth' into the text field under the 'Less' button
 7. Press the '+' button

Blue text box named 'Name' and contains extra information of 'Date of Birth' with text color White

- Changing the text in a text box to 'Hello World'
 1. Hover the mouse over the text box wishing to change title
 2. Click the 'T' button
 3. Enter "Hello World" and press 'Enter' key

The text of the text box now says 'Hello World'

- Move a text box to the right circle of the Venn Diagram
 1. Click on the text box
 2. Drag the text box to the right circle
 3. Drop the text box

The text box is now in the right circle of the Venn diagram

- Delete a text Box
 1. Hover over the text box with mouse
 2. Click the 'trashcan' button

The text box is no more.

- Changing the title of the Venn diagram to 'My Venn Diagram'
 1. Left click on the title
 2. Enter 'My Venn Diagram' and press 'Enter' key

The title is now changed to 'My Venn Diagram'

- Changing the title of the right circle to 'Things I'm Good At'
 1. Left click on the right circle title.
 2. Enter 'Things I'm Good At' and press 'Enter' key

The right circle title is now changed to 'Things I'm Good At'

- Saving a screenshot of the diagram named 'VD_1.png'
 1. Hover the mouse above the right side panel
 2. Click the 'Screenshot' button
 3. Name the file 'VD_1'
 4. Select '.png' for file type and save it in desired local directory location

Screenshot 'VD_1.png' is saved

- Clear all of the textboxes and reset to the default application settings
 1. Hover the mouse above the right side panel
 2. Click the 'Reset' button

- Change background color of application to white
 1. Hover the mouse above the right side panel
 2. Click the 'Background' color picker
 3. Click the white color from the color palette

The background of the application is now white

- Move 3 textboxes from universal list to right circle
 1. Click on the text boxes one after the other
 2. Drag the textboxes to the right circle
 3. Drop the textboxes

The 3 textboxes have been moved to the right circle

