EECS2311 W20 GRB #11

VENN DIAGRAM

SOFTWARE REQUIREMENT DOCUMENT

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Introduction

The Venn Diagram system is an application whose purpose is to visualize and categorize user data using venn diagram. Users can add each data manually or multiple data from .txt file once. The system allows users to categorize the data within the venn diagram UI and visualize the data according to their own category efficiently and creatively.

Purpose and Goals

Goals:

➢ Develop a software system that allows users to visualize and present their data using venn diagram and other UI design contents (colour, font, etc.).
➢ System should work all operating systems without any restrictions and under minor system requirements.
➢ GUI and System functions should be easily understandable by most users and used universal techniques and functions (icons, mouse events, button clicks, etc).

Purpose:

Our simple design application helps users to visualize their data using venn diagram easily creatively and effectively and have little fun with our app.

Use cases for the system

1. **Add New Entry**
   a. **Add new entry manually**
      Users can add new data one by one using the add icon button and add the colour and shape of the entry. Default background colour of the entry is pale yellow and the default shape of the entry is rectangular.
   b. **Add new entry from file import using .txt file**
      Users can add multiple new entries using a text file by import file option.

2. **Edit Existing Entry**
   User can update the existing entries and can change their colour and shape

3. **Delete existing entries**
   Users can delete the existing entries by using the drag and drop option and by dragging the object on the delete icon button.

4. **Drag and Drop**

   Entries on the screen can be dragged and dropped anywhere within the screen and users can arrange them. And also, the system prevents overlapping entries if the user drags and drop one entry top of another entry dragged entry will align next to the old one.

5. **Entry Categorization**

   User can drag and drop the entries into venn diagram according to the selection part of the venn diagram lit up and also corresponding "#elements "count will increase and when dragged object leave from circle space corresponding diagram space will lit down and corresponding "#elements" count will be decreased.

Acceptance test cases:

The software system should have the following acceptance cases by the end of its current mid-development cycle.

Procedure	Expected result
Start application and GUI visual	Application start normally within recent amount of time, all GUI contents are in proper alignment
Add new entry manually	- User able to click add icon button - Second "Add Entry" window should popup - User can enter text, change colour of the text - Using scaler to change the shape of the text - When user modify the text, colour, shape of the text the sample preview text should change accordingly - User able to click create button - Using create button to create new entry - Created new entry will added to the main screen - After create the entry user can add using ENTER key press - When adding new entries one by one the new entries auto arrange next to previous entry
Add multiple new entries	- User able to click menu - able to select import menu item - file selection will pop up and use able to open selected .txt file - Imported new entries add to the main screen and auto arrange next to each other - Added new entries has default colour (white background) and shape(oval)

Delete existing entry	- User able to drag and drop the existing entry on top of the delete button icon - Dropped item should be deleted and remove from main screen
Edit existing entry	- User able to double click existing entries - Second "Edit Entry" window should popup - User can enter text, change colour of the text - Using scaler to change the shape of the text - When user modify the text, colour, shape of the text the sample preview text should change accordingly - User able to click edit button - Using edit button to edit existing entry - Update should be visible in the main screen - After update the entry user can add using ENTER key press - When adding new entries one by one the new entries auto arrange next to previous entry
Entries in the screen not overlap	- when user drag and drop one entry on top of another entry it should not be overlap and auto arrange next to another entry
Drag and drop the entry and within the screen boundary	- User only allows to drag and drop the existing entry anywhere within screen boundary - If user dragged the item out of screen mouse cursor should stop at the window line and dragged entry rearrange inside the screen line
Drag an entry to inside the venn diagram	- When user drag and drop the entry inside the diagram space the receiving diagram should lit up - Corresponding diagram "Number of elements" count should increase.
Drag and drop the entry from one part of the diagram to another (from left to right, from middle to left, etc)	- When user drag and drop the entry inside the diagram space the receiving diagram should lit up - Corresponding diagram "Number of elements" count should increase. - Previous diagram space should be lit down and corresponding diagram "Number of elements" count should decrease. - If the new space is a union of two circles then both diagrams should lit up and both diagram elements count should increase.
Export existing data to text file	- When user select export option from drop down file menu then a file explorer window should be opened

	- User create a new file name and select the location for save the exported entries file - when users select save the created text file saved in selected file location with exported entries. - when user click save in file explorer without create file name it should prevent from save an empty file -When user save new entries in same text file already saved then new entries merge with existing entries in saved text file
More Tests…………...	