

# **Venn Diagram Project: User Manual**

Group 4

This Prototype Manual was prepared as a requirement for York University's Software Development Project Course, EECS 2311.

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## Version History

Revision	Date	Author(s)	Section/Pages Affected	Remarks
Version 1	February 9th, 2020	Nabi Khalid, Nourin Abd El Hadi, Andrew Hocking, Anika Prova	Entire Document	Initial document, Subject to revision
Version 2	February 23 <sup>rd</sup> , 2020	Nabi Khalid, Nourin Abd El Hadi, Andrew Hocking, Anika Prova	Entire Document	Midterm Submission
Version 3	March 8 <sup>th</sup> , 2020	Nourin Abd El Hadi, Andrew Hocking, Anika Prova, Nabi Khalid	The User Interface	Major changes to functionality
Version 4	April 6 <sup>th</sup> , 2020	Nabi Khalid, Nourin Abd El Hadi, Andrew Hocking, Anika Prova	Entire Document	Final Submission

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## 1. Introduction

### 1.1. Purpose

The purpose of the Venn Diagram program is simple, to provide a simple, clean, and concise Venn Diagram application that will surpass the basic Venn Diagram capabilities through its many creative additions.

**Table 1: Components Completed**

Item	Interface/Feature
1.	It allows the user to take a screenshot of the Venn diagram and save the image to their computer.
2.	It allows the user to drag and drop text that they enter to any circle they want.
3.	It allows the user to add customizable titles for the diagram and each circle.
4.	It lets the user save the diagram they created as a .venn file
5.	It allows the user to open a .venn file and continue editing.
6.	It allows users to upload and compare images.
7.	It allows users to import and export diagrams as CSV files.
8.	It allows the user to import and export the diagram as an Answer Key.
9.	It allows the user to undo/redo their work.

**Table 2: Components to be Developed, see [Section 5: Future Work](#)**

Item	Interface/Feature
1.	It will allow users to create their own accounts and save their diagrams for other users to see.

### 1.2. Scope and Scalability

The scope of this project is very large and broad, with lots of room for improvement. Some examples of the potential scale of this project include the addition of more than two sets in a Venn diagram, ability to save and load Venn diagrams, and the ability to add more than just text into a Venn diagram (all implemented). These are only a few examples of the scope of the project; the Venn Diagram project is by no means limited to these. See [Section 5: Future Work](#) for more information.

### 1.3. Getting Started

Ensure Java is installed on your computer. If it is not, it can be obtained for free at <https://www.java.com/en/download/>. Next, download the Venn.jar file and double click

on it to open it. If you are using MacOS, right click on the file and click “Open” (this only needs to be done the first time). If the .jar does not run, there is a [macOS installer](#) that can also be installed and used to run the application. Once the program has opened, you can then type in the text field that says “Add an item...” and click the add button to the right of the field. After that, drag the text to the desired section of the Venn diagram and let go of the text. Repeat until you are finished inputting text. You may click in the sections labeled “Title of Venn Diagram” and “Enter Title” and type in your own titles. You can press “Settings” to change the appearance of your diagrams by changing the colours and size of the circles, as well as the colour of the font. Once you are satisfied with your Venn diagram, you can click the “Save” button at the bottom of the screen to save your Venn diagram as a .venn file or you can click “Export to Image” to save your diagram as an image. You can also export your diagram as an answer key so that you can check if your answers are correct later on.

## 2. Features

This section describes the features of the final prototype for the Venn Diagram Project as well as if they are implemented yet or not.

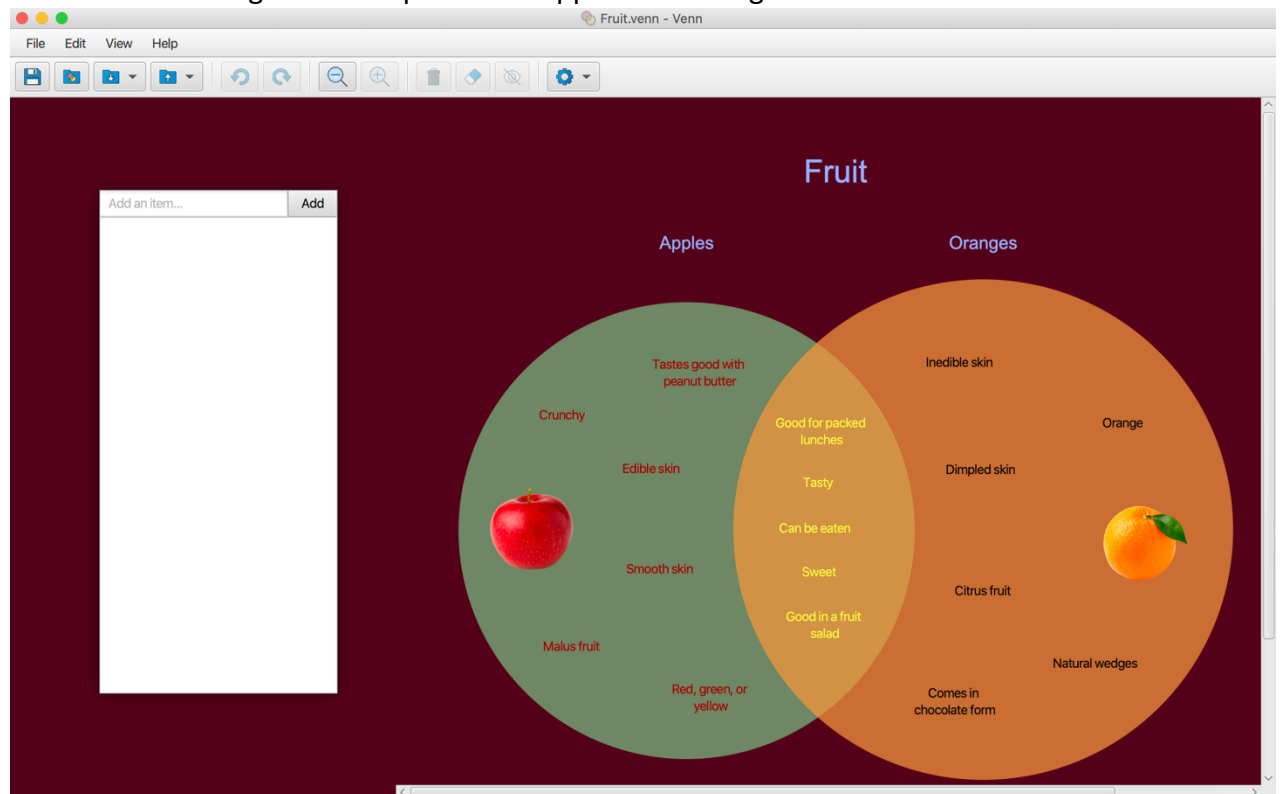
**Table 3: Features of the Venn Diagram Project**

<b>Feature</b>	<b>Description and Implementation status</b>
Screenshot	Takes screenshot of diagram and saves it. Implemented.
Drag and Drop	Drag text from one list to the different circles. Implemented.
Customizable Titles	Change the diagram and set's titles. Implemented.
Comparing Images	Upload and compare images. Implemented.
Delete Items	Delete items from Venn diagram. Implemented.
Save diagram	Save as a .venn file. Implemented.
Reopen Diagram	Open a .venn file and keep editing. Implemented.
CSV Files	Import and export CSV files as diagrams. Implemented.
Answer Key	Import and export diagram as an answer key, check if answer is correct. Implemented.
Colours	Change colours of circles, text, and background. Implemented.
Text files	Importing and exporting diagram as text files. Implemented.
User accounts	Create user account, save and share diagrams with other users. Not yet implemented.
Descriptions	Able to add descriptions of images and text in the diagram. Implemented.
Undo/Redo	Can undo and redo tasks done on the diagram

### 3. Usage Scenarios

The Venn Diagram is useful for any scenario in which one might want to compare and contrast two categories or things. It allows for an easy visual demonstration of the similarities and differences between any two categories or things. One can easily imagine hundreds of possible uses for this type of comparison. One can easily imagine hundreds of possible use cases for this type of comparison. Figure 1 is an example of one such use case, in which the Venn Diagram program being used to compare apples and oranges.

Figure 1: comparison of apples and oranges



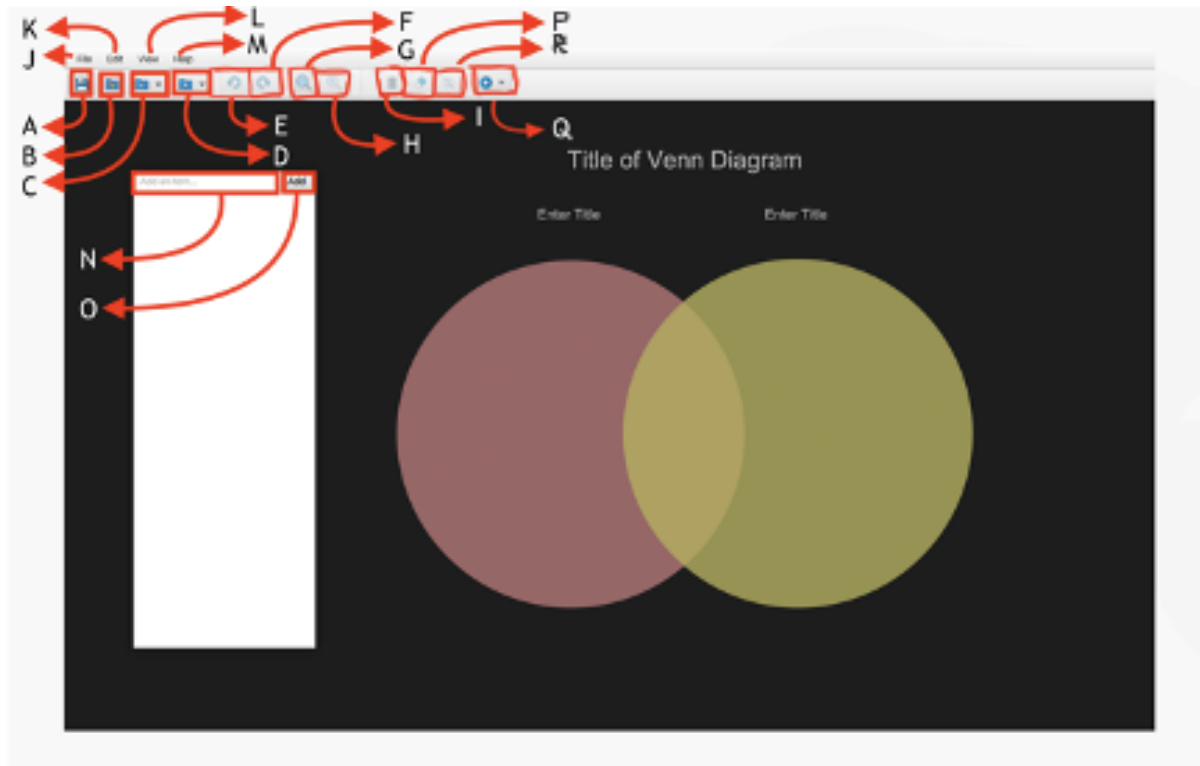


Usage Scenario # and availability	Usage Scenario	Expected Behavior
1	Opening the Application	Access to entire UI
2, after 1	Clicking on Title Box (right above the Venn Diagram)	Granted access to type in desired title of Venn Diagram
3, after 1	Clicking on either of the Set Title Boxes	Granted access to type in desired title of Set
4, after 1	Clicking on the Data Entry Box	Granted access to type in data, limited to text only
5, after 1, 4	Clicking add after typing in data	Data added into text chart beside Venn Diagram, ready to place
6, after 1, 4, 5	Dragging and dropping text from the chart into a Set (or intersection) within the Venn Diagram	Text is added to set that it is dropped on top of, text disappears from chart
7, after 1, 4, 5, 6	Dragging and dropping text from one Set in the Venn Diagram to another	Text is removed from its previous set, and added to the set is dropped on top of
8, after 1	Clicking on settings (left hand side)	Granted access to change the colours of the titles, background of the Venn Diagram, sets, and size of the sets
9, after 1, 8	Clicking on the drop down colour menus, selecting one of the many available colours	Granted access to change the colour of the specified element (titles, background, sets)
10, after 1, 8	Dragging the size bar of each Set left or right	Changes the size of the set that the bar is associated with
11, after 1 and any changes	Clicking export to image (left hand side)	Save the current state of the Venn Diagram as a .png file to a specified location, image only shows the Venn Diagram and its title
12, after 1, changes	Clicking Save (left hand side)	Saves the current state of the Venn Diagram as a .venn file to a specified location
13, after 1, changes, and 12	Clicking Open (left hand side), finding .venn file, opening it	Opens the file finder on the computer, once .venn

		file is found, it can be opened, edited, and saved once again
14, after 1,	Clicking Clear Diagram (left hand side)	Clears all text within the Venn Diagram, all text is sent back to item chart
15, after 1, 6, 7	Clicking Delete Item after clicking on a block of text	Deletes text from Venn Diagram and Item chart

## 4. The User Interface

The user interface of the application is simple and intuitive. Below is a visual explanation of each part of the user interface and their individual functions:



A: Save

- Saves progress as a .venn file

B: New File

- Open a new file

C: Import...

- Image
- CSV File
- Answer Key

D: Export as...

- Image
- CSV File
- Answer Key

E: Undo

F: Redo

G: Zoom In

H: Zoom Out

I: Delete Selected Item

- Deletes selected image or text

J: File

- New
- Open
- Import
  - Image
  - CSV File
  - Answer Key
- Save
- Save As..
- Export Venn Diagram as Image...

K: Edit

- Undo
- Redo
- Select All
- Delete Selected Items
- Clear Venn Diagram

L: View

- Zoom In
- Zoom Out
- Actual Oranges

M: Help

- View Manual
- About Venn

N: Text Field

- The user can input their text and press the "Add" button (O)

O: Add

- Adds the text from the text field (N) to the list

P: Reset

- Moves all items in Venn diagram to the text list

Q: Settings panel

- Filled with customization options for the appearance of the Venn diagram
- The user can:
  - change the colour of the title text and the colour of the background of the application
  - change the colour of the text and background inside each circle
  - change the text colour of the intersection
  - change the size of the circles

R: View Answers

- Shows the user if their answers are correct or not by placing either a green check mark or a red X

## 5. Future Work

Section 1.2 expanded briefly on the future of the Venn Diagram project; this section will provide necessary depth.

### 1. Comparison of three sets in a Venn diagram

In a future release, the Venn Diagram application will have the option to compare three sets (or potentially more) of data rather than just two. This allows even more flexibility for the user, as three or more sets result in many more intersections. The backend set intersection logic will be a challenge to implement however it can be done. This makes room for a much wider set of use cases to be appeased as well.

### 2. Adding images and files into a Venn diagram (Version 2, Implemented)

In a future release, the Venn diagram will be able to support comparison of images and files, in addition to the comparison of text that it is capable of now. This also provides more flexibility to the user and opens up wider use cases.

### 3. Saving and loading Venn diagrams (Version 1, Implemented)

In a future release, the user will be able to save Venn Diagram states to a file and open it again later for further editing. This removes the need of keeping the application open to continue working with the Venn Diagram later on.

### 4. Creating a login system, with users

In a future release, users will be able to create their own accounts (with usernames and passwords). Accounts will have Venn Diagrams that the user made associated with them.