Essay for CS 416 Narrative Project

I am using this essay to address the different sections required by the project.

Message

The topic I chose for the Narrative Visualization is **Investing in High Tech Stock**.

In this project, I use public data available from Kaggle Website:

https://www.kaggle.com/datasets/umerhaddii/big-tech-giants-stock-price-data

The Dataset consists of 14 High Tech stocks' prices from year 2013 to 2022.

I used this dataset to illustrate important investment strategies such as

- buy at one lump sum vs buying smaller amount at regular period (dollar averaging)
- dollar averaging vs buying at regular period when stock price is rising (Upward Trend) or falling (Downward Trend)

A summary chart is created to show what is the best dollar averaging variant for the 14 stocks over 2013 to 2022.

Narrative Structure

The Narrative Structure is Interactive Slide Show.

There are 6 buttons at the top section of the screen to allow different scene to be shown.

Visual Structure

Structure: We use a consistent screen which is partitioned into 3 sections.

The top section contains descriptions to remind user the information provided by the Narrative Visualization. This section doesn't change as user navigates through the scenes.

Interactivity: The middle section contains buttons and checkboxes to allow user to control the information they want to see in the bottom section.

Transition: The buttons allow the user to transition from one scene to another.

The bottom section is the canvas that shows different set of curves related with the 14 stocks over 2013 to 2022 based on user selections.

Highlight: The canvas uses a different background color (Light Grey) to draw user attention.

Scenes

Ordering: The ordering of the scenes (set of curves) can be in any manner the user decides, i.e. random-access. We displace the scene like slide show.

Annotations

We use a consistent legend in the canvas where each of the stocks are given the same color across the scenes.

When user move the mouse over the circles on the curves, the circle will increase in size and the "Annotation Data" Textbox will show details for that circle.

Parameters

Parameters that control the visualization includes the buttons that select which scene to be displayed in the canvas and the checkboxes that enable which stocks' curves to be shown.

Triggers

On Clicking the button, the selected button will be grey out to allow user to know that the canvas is displaying data corresponding to that scene.

The checkbox visually showed which stocks' curves are enabled.