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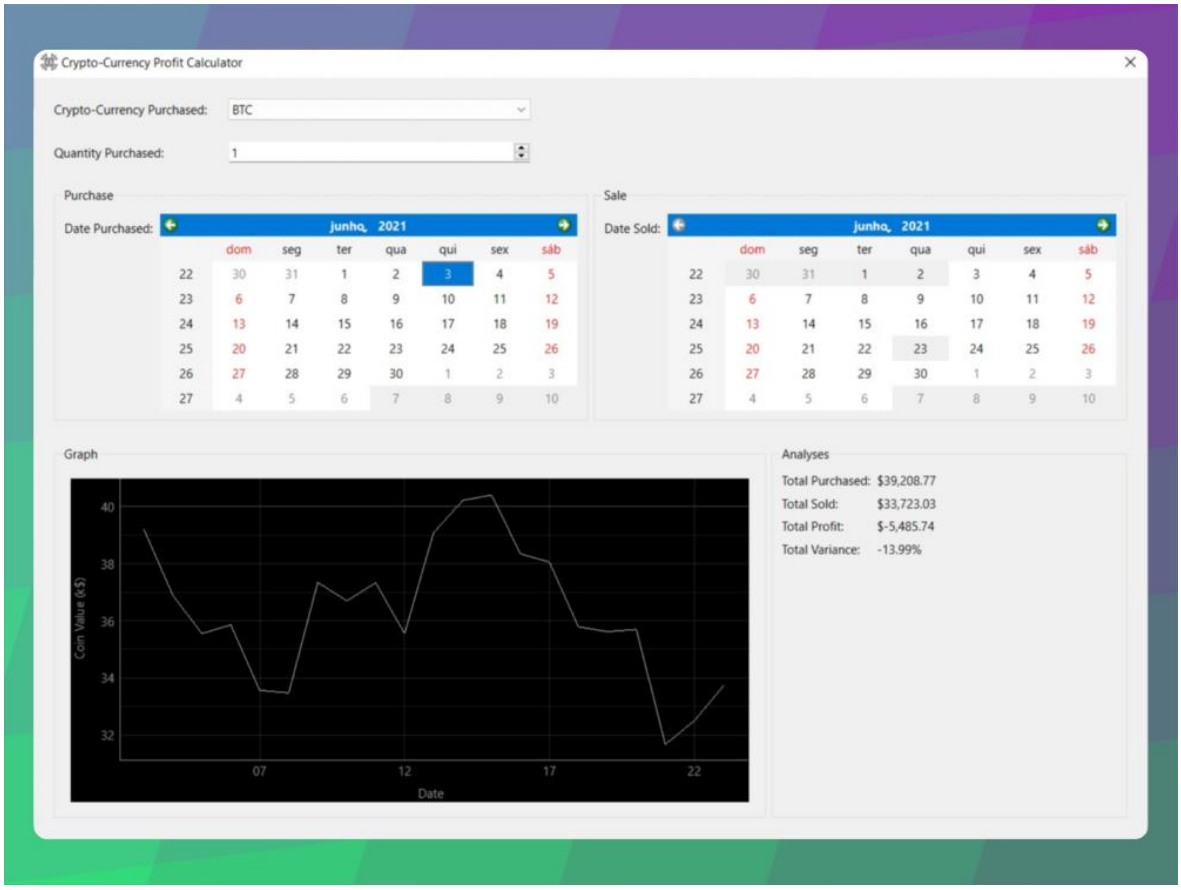
Main window



When it comes to top layer design of the application, my idea was to basically divide the main screen in 4 quadrants, following the natural order that the user eyes would scan the page, going from top-left, to top-right, and ending at bottom-right, paying little attention to the bottom-left.

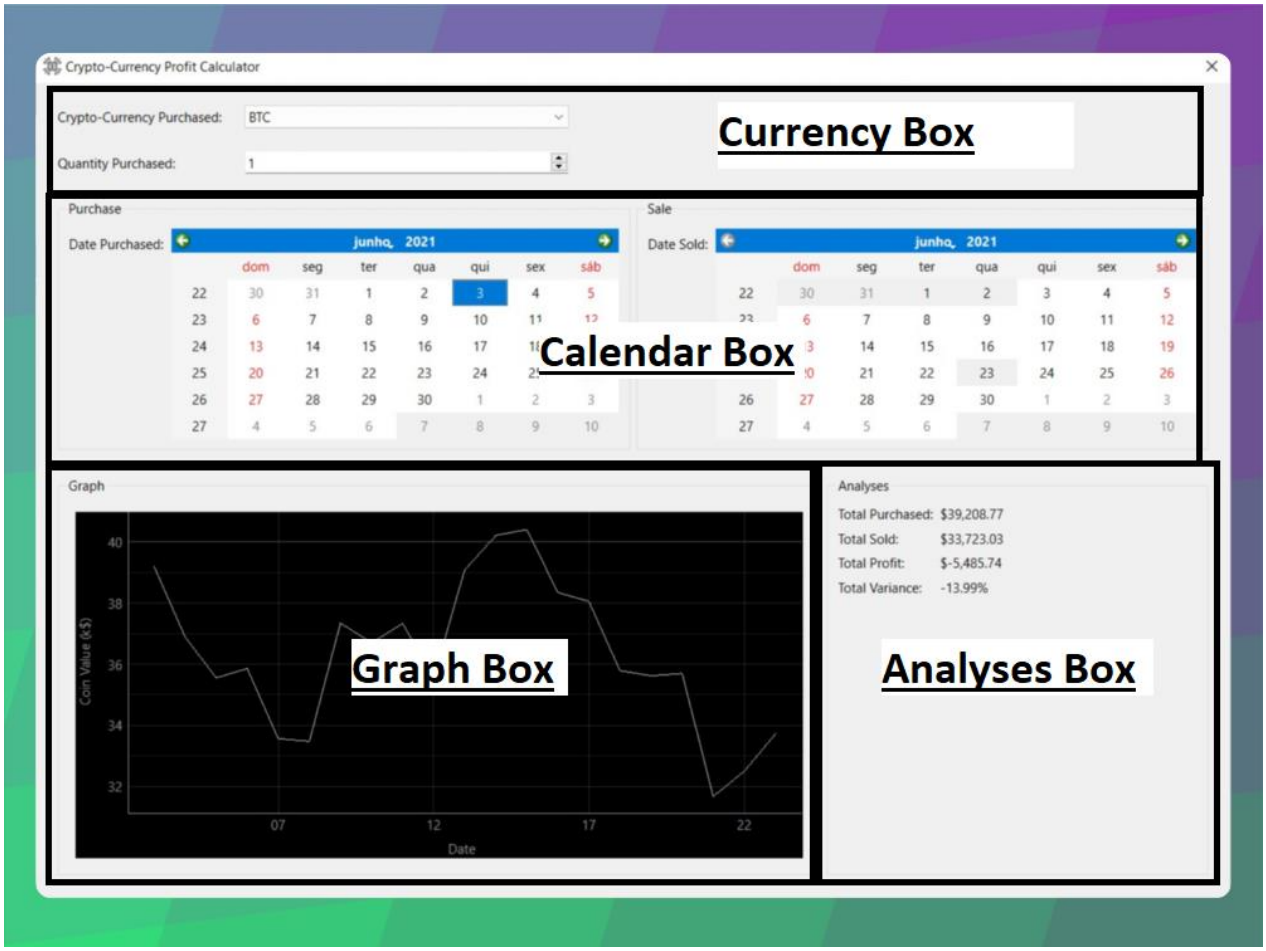
On the top of top-left quadrant, the first thing the user would look at, I left the initial input for the application, the selection of the coin, since that will influence all other areas of the application, I decided adequate for it to be the first thing the user would see and think of interacting with.

Following that, still on the top-left quadrant, I placed the quantity spin box and the calendar for the purchase date, then on the top-right quadrant I placed the calendar for the sale date. As I consider that to be the primarily order of inputs that the user will use when interacting with the UI.

First the currency, following by the quantity, then the date of purchase and finally the date of the sale, that's the most natural and easy to follow order that the user could follow when first interacting with the program, after following that order and getting the first results the user is free to change any of the controls in any order to alter the results or get information on a different coin.

To further enforce that order I made the calendars appear as gray and disabled until the first time a coin is selected.

On the bottom right, where the user eyes would rest after scanning the page, I left the resulting data, the total cost of the purchase and sale, the total profit, and the variance of the price of the coin within the two dates.
On the bottom left, the area where the user eyes would look at the least at first glance, I put the extra feature, the graph (value X date) that displays a line graph representing the different values of the coin through the days in between the purchase and sale date. Because I considered that being something extra that is not the main interest of the user when using this application.

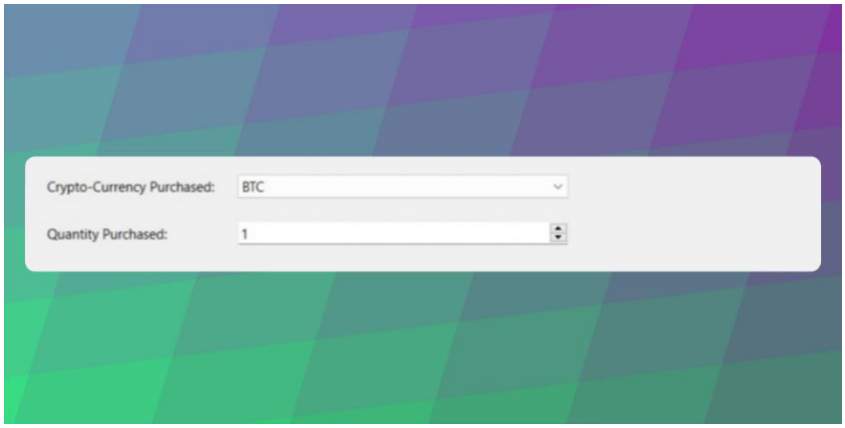


As you can see above, I grouped the widgets in 4 groups (or boxes), in the actual UI I grouped those widgets together through the proximity principle and in some cases an actual box around the group.

On the previous part you can see the reasons why I decided to order the groups in the way they are in relation to each other, now I will get into the decisions for each widget of each group and why I decided to group them together.

* Note: every widget in this application works as intended

Currency Box



The reasons why I decided to group the currency combo box and the quantity spin box together are mainly:

- They look similar, both are white input fields with black text, having them together makes the UI looks more organized and aesthetic.

- If they were separated, they would look awkward and disproportional among the other bigger widgets, grouping them together makes them have more weight, so they fit better in the window structure.

I group these widgets together through the principle of Proximity and Similarity.

Currency Combo Box:

- Location: As mentioned before the location for this widget was decided so that it would instinctively be the first thing the user would interact with.

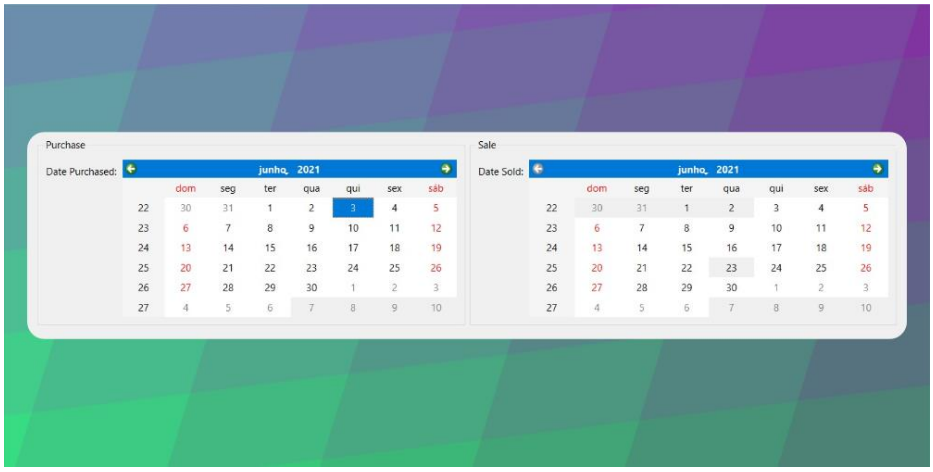
- Size: The size was decided so that this widget wouldn't be too small so that it would not look small compared to the other input widgets and not so big that it would look absurd.

Quantity Spin Box:

- Location: I placed the spin box close to the currency combo box so they would look grouped together and bellow it so that the user would understand it is less important than it.

- Size: Same size as the combo box for the same reasons listed above and so that they would look similar.

Calendar Group:



The reasons I grouped both calendars together are straight forward:

- They perform the same function, that is, letting the user input a date easily.
- They look the same.
- That make the UI look more symmetric, which is pleasant to the human eye.

I group these widgets together through the principle of Proximity, Similarity and Symmetry.

Purchase Calendar:

- Location: I inserted this widget bellow the currency box so that to make it clear it is supposed to be interacted with after the group above at first. And to the left of the sale calendar to make it clear that it should be interacted with before it.

- Size: I made the calendar default size big enough so that all the dates don't look like just a big mush, but not big enough it would overpower the rest of the widgets.

- Style: To make the calendar stand out and easy to differentiate from the sale calendar is that I added a box around it with the title purchase.

Sale Calendar:

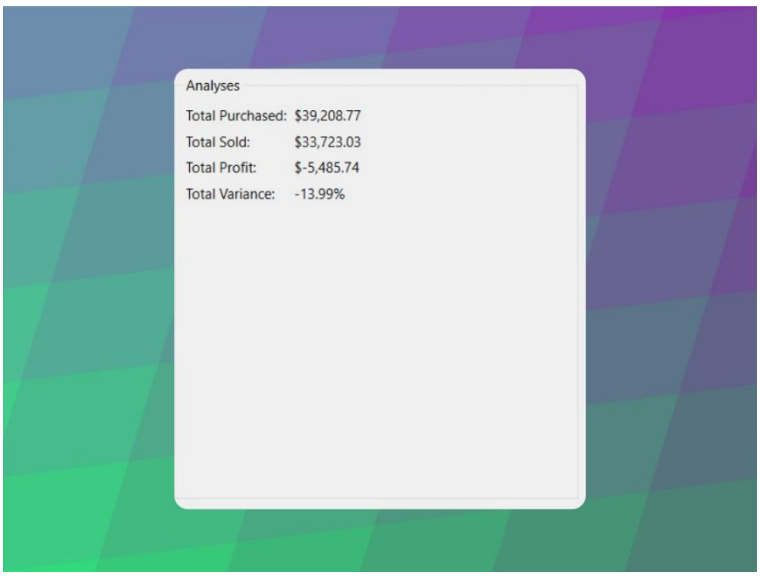
- Location: I inserted this widget right of the sale calendar to make it clear that it should be interacted with

after it.

- Size: I made the calendar default size big enough so that all the dates don't look like just a big mush, but not big enough it would overpower the rest of the widgets.

- Style: To make the calendar stand out and easy to differentiate from the purchase calendar is that I added a box around it with the title sale.

Analyses Group:



The reasons I grouped these widgets together are:

- They perform the same function, that is letting the user know the information calculated by the application.

- If they were separated that would make the user have to move his eyes across the application to find related information which is not a good user experience.

- They all belong at the bottom right quadrant of the window, that is where the user looks to find the conclusion of the page, as we naturally interpret that part of the application as the end of the window.

I group these widgets together through the principle of Proximity, Similarity and Figure/Ground.

For the entire group:

Location: Bottom-right of the window as that's where the user would look at by default for the conclusion of the app process.

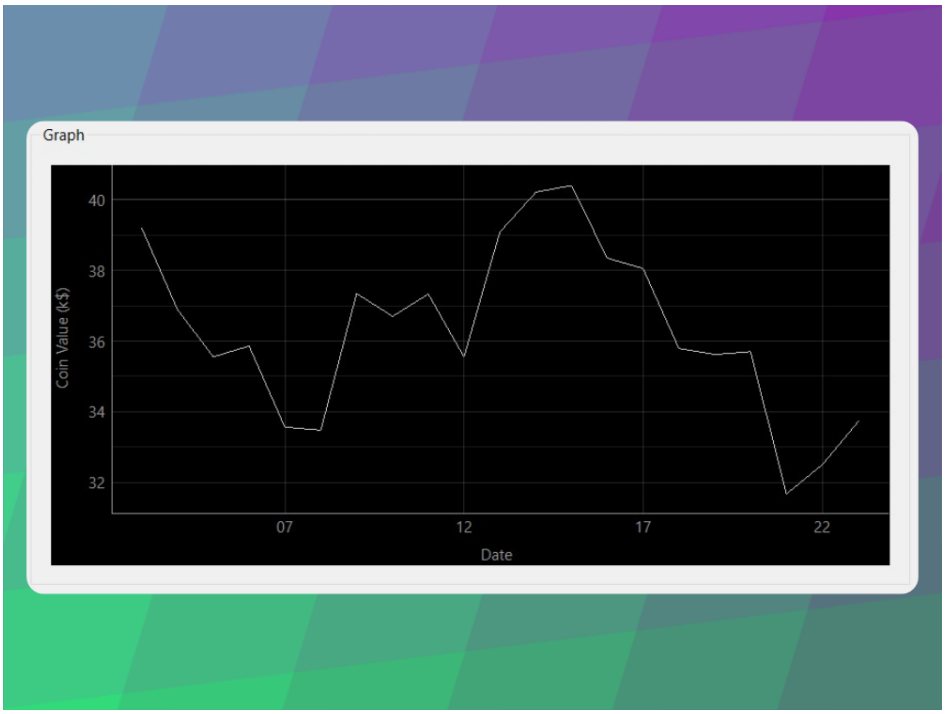
- Size: Left it the default size for text as I believe that an increase in font size would make the UI look less uniform, and unnecessary since they already draw enough attention to it due to its location, grouping, and box around it.

- Style: I drew a box around it so that the group would have more weight and look more proportional to the rest of the application.

- Order: They are ordered top to bottom in away so that it follows a natural order of results, first purchase, then sale, then profit and at the end a little extra feature to help understand better the fluctuation in value is total variance.

- Unit: the first three are showed with a $ to make it clear it's a monetary value in dollars and the variance is showed in % to make it clear it's a percentage.

Graph Box:



This group consists of only one widget a graph, the reasons why a separated the graph in its own group are:

- Its an extra information completely separated from the primary interested of the user when using this application.
- Its dissimilarity with all the other widgets in the application.
- Its too overbearing to place it in a group with another component.

- Location: Bottom left of the screen as that is the are the user will least scan when first looking at the page, which fits well with the graph since its extra information for the user not the main information that he would be looking for when using our application.

- Size: The graph is large enough so that it doesn't look squashed but small enough so that it doesn't completes overbears the rest of the UI. Also, its wide enough so that there isn't a lot of white space inside of the Analyses Box.

- Style: The graph is contained inside a box as to further separate it from the rest of the application.

Other small extra features:

- Calculation of the total variance
- Sale calendar change min date when the buy date changes as to not allow selection before buy date