

Paint Application

UI Design Document

Instructions

Submission: *Edit this template and submit it as part of your submission.*

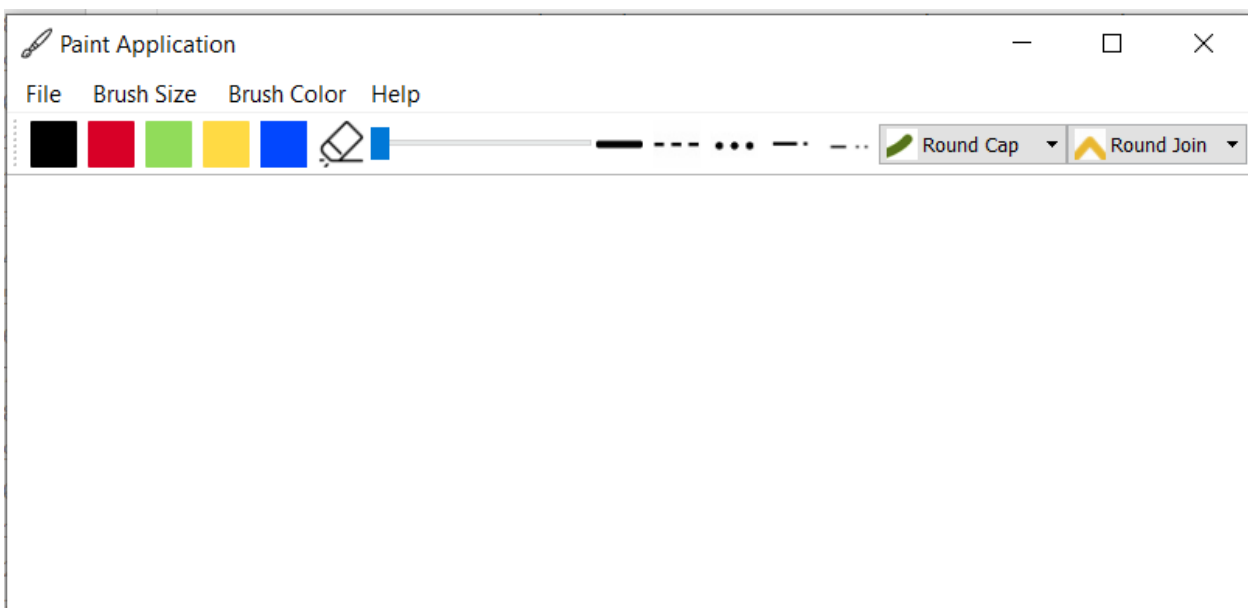
Length: *Should be 4 pages approx. Word count is flexible, but all decisions should be clarified.*

To achieve good marks in this item ensure that this document is well structured and addresses each of the following headings and subheading. The explanation of each UI Design Choice should be clear, precise and show substantial consideration has been made, references are welcome. All decision should be explained regardless of how basic they are. Do not cut and paste justification from the internet (plagiarism) or notes but include references and explanations in your own words where appropriate.

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- Include multiple screen shots of the application each focusing on a different component clearly labelled
- Clearly indicate what is working and not work.
- Discuss each component under the following headings
 - Location: e.g. The button was placed in the bottom right to as it si the default location to confirm and action
 - Colour: The colour scheme was chosen to avoid the main form of colour blindness and produce high contrast for the visually impaired.
 - Size:
 - Style:
 - Etc.

Overview of the Window:



Menu

The Menu Bar is located at the top of the window. This is the default location. I didn't change it because as it is the default location, all the users used to know that the Menu Bar is on the top of the window. This is part of the design guidelines: consistency and standards. It's better to respect that if we want to facilitate the use of the application.

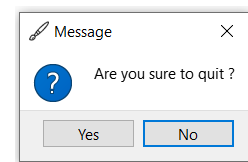
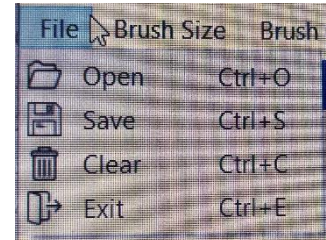
File Brush Size Brush Color Help

The Menu Bar contains four objects:

- **The File Menu:**

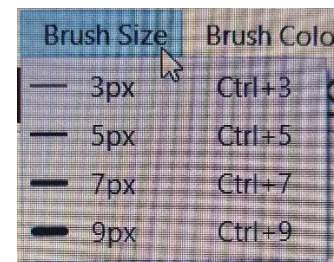
This is the first one on the Menu Bar. It allows us to open an existing file, save a file, clear the screen or exit the application. I put an icon for every action to help the user.

About the Exit Action, if the user clicks on it, there is a Message Box which appears to ask him if he really wants to exit, to avoid mistakes. The default button selected is "No", because usually the user can click on the Enter button just by habit. It is less serious to have to repeat the action again rather than exit the application by mistake without saving the drawing.



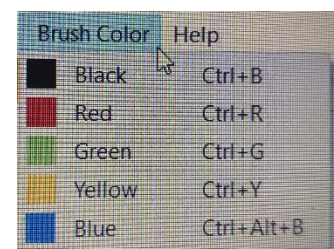
- **Brush Size Menu:**

This allows the user to choose the size of the brush between 4 sizes. I added an icon for every size to help the user in his choice. Indeed, it's difficult to imagine the size of the brush just with the number of pixels.



- **Brush Color Menu:**

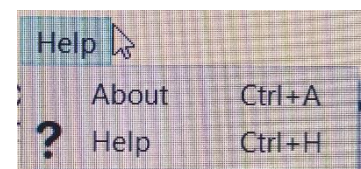
This proposes the 5 most important colors to the user. I added the color Blue, which was missing in the old code.



- **The Help Menu:**

This is the last one on the Menu Bar. On every application, it is located at the end. That is why I chose this place, to respect the standards.

It proposes two actions: About and Help. When you select one of these actions, a Message Box appears to help you.



For every Actions, I added a keyboard shortcut to give to the user the opportunity to make an action without using the mouse.

I chose the name of the shortcuts with the first letter of the action, because this is easy to remind. When there are two actions with the same first letter, I preferred to lengthen the shortcut with ("Ctrl+Alt") rather than change the letter. All of the Menu is functional.

Main Widget

I chose a toolbar as main widget because this allows a faster access to the most used commands. It displays the commands with pictures, so it is easy to understand, and faster. Moreover, we can move it on the screen.



BrushColor:

The user can choose between 5 colors. The 5 colors can be selected directly on the toolbar, this is convenient. Indeed, when we draw, we often change the color of our brush, so it has to be faster.



By default, the color is Black because this is the most common color.

Rubber:

For real, the rubber is just the color White.

It is functional.

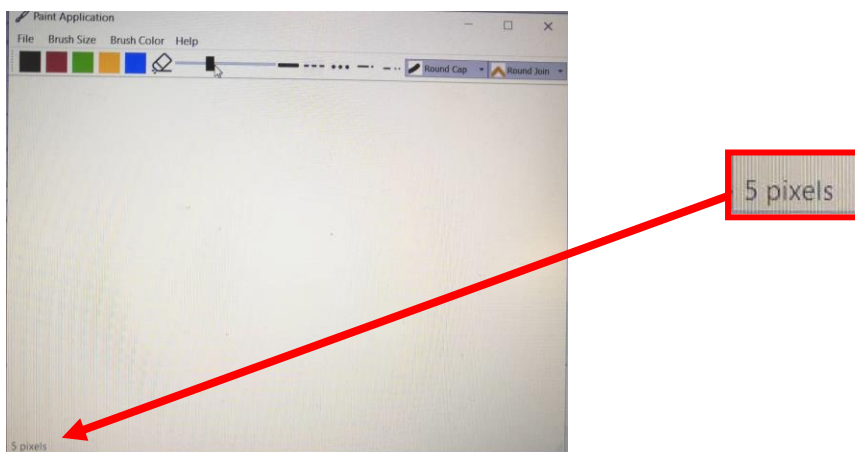


BrushSize:

I added a slider to the toolbar to choose the size of the brush. The size can take 23 different values: from 3 to 25 pixels. The slider is convenient for changing int values.



The less convenient part with the slider is that we can't see which value is selected. That is why I added a Status Bar to indicate to the user the size of the brush, when he uses the slider.



By default, the brush size is 3 pixels.

BrushType:

I added a BrushType, to allow the selection of the brush line type. There are 5 different types: solid line, dash line, dot line, dash dot line and dash dot dot line.

I added these 5 actions in the toolbar directly because the user can change this type more easily. It's easy to understand what type of line he will select because the pictures are clear. The user doesn't have to know this is called "dash dot dot line" to understand the type of line. The name of the brush line appears when you put the mouse on the button.



By default, the brush line type is the solid line.
This is functional.

BrushCap:

I added a ComboBox to the toolbar to select the brush cap type. There are 3 types: Round, Square and Flat caps. This is not easy to understand what is the cap. Thanks to the ComboBox, the user knows that he has to choose between 3 different caps. He has the name and a picture of it to help him. When he selects one type, this is highlighted in blue so he can remember which cap he has selected.

By default, the brush cap type is the round cap.



BrushJoin:

I added a ComboBox to the toolbar to select the brush join type for the same reasons as the one for the brush cap type. There are 3 types: Round, Bevel and Miter joins.

By default, the brush join type is the round join.

