**PROJECT**

**SYNOPSIS**

**OF**

**CodImage**

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Image processing are of two aspects:

1. improving the visual appearance of images to a human viewer.
2. Preparing images for measurement of the features and structures present.

**OBJECTIVE**

The objectives of the application are-

* To implement an image processor.
* To perform image transformations.
* To perform some interesting and advanced operations on images like: Steganography.
* To learn about Image structures (Header, Bit-Maps, Pixels arrangement).

This application can be readily used by users to understand and perform frequently used operations on images.

Our motive is to implement frequently used operations on images in a unique manner using low level primitives.

**TOOLS AND TECHNOLOGY USED**

**Tool**:

* **CS50 IDE**: CS50 IDE is a cloud-based Integrated Development Environment powered by Cloud9 that features a cloud-based Ubuntu environment. It features a browser-based editor, which supports syntax highlighting and word completion, a GUI-based GDB debugging, full control over a cloud-based Ubuntu environment, and many more features including themes, customizable layouts, and keyboard shortcuts.

**Technology:**

* **C++**: - C style object-oriented Programming Language
* **GRAPHICS**: - Commercially designed Toolkit to generate photographs, drawings, Line art, graphs, diagrams, typography, numbers, symbols, geometric designs, maps, engineering drawings, or other images.

**Functional Features:**

1. Copy
2. Scale
3. Mirror
4. Rotate
5. Transpose
6. Crop
7. Blur
8. Stretch
9. Merge
10. Fill Color
11. Pattern Search
12. Steganography
13. Undo
14. Redo
15. Window (graphics).

**REFERENCES**

* www.msdn.microsoft.com
* www.stackoverflow.com