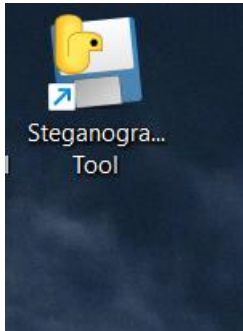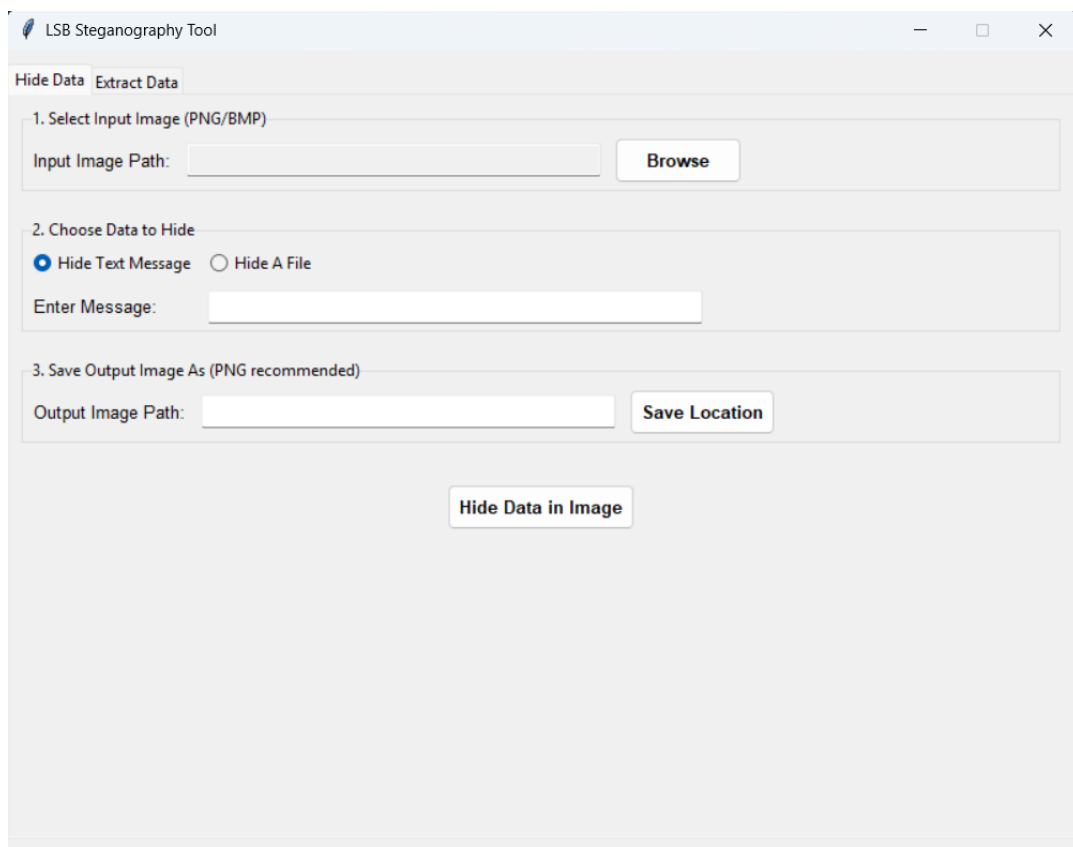# Walkthrough of the Steganography Tool

1. Open the Application. If you used the preferred way of installation, then the application can be opened easily using its desktop icon.

   (Note the executables downloadable, whether Steganography Tool Easy Setup.exe or Steganography Tool.exe are solely for Windows Machines Only. Thereby, if you are using a different OS, kindly do not download these, instead download the Steganography Tool.py file and refer to the installation guide provided in the README.md.)

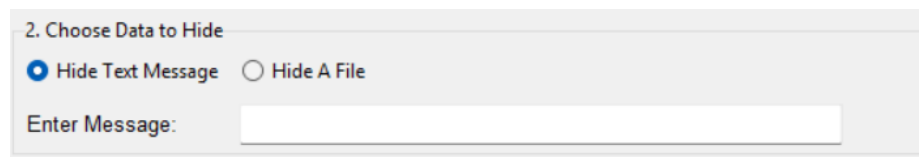2. Understanding the GUI of the Tool:

There are 2 tabs: Hide Data & Extract Data each with different options available.
In the above picture the Hide Data tab is opened.

- Hide Data (Tab)

  There are 3 options within the Hida Data Tab:

  A. Select Input Image (PNG/BMP) – Allows you to select the Image
     (PNG&BMP only) that will be used to hide data within it. The input
     image path box, is where the location of the image file within your
     computer will be used to fetch the image which will be used for hiding
     data in it. And the browse button allows you to locate the image using the
     File System on your machine. Additionally, there is also a drag and drop
     functionality, which you can use. Simply select the image you want and
     drop it in the Input Image Box, which will then automatically fill it.

  B. Chose Data to Hide – This gives you the option to choose the data type
     that you want to embed in the image selected above (Step A). There are 2
     options to choose from – Hide Text Message or Hide a File.

     i.   Hide Text Message: Allows to hide the text message that can be
           typed or copied into the 'Enter Message' text box.

           2. Choose Data to Hide
           ● Hide Text Message   ○ Hide A File

           Enter Message:

     ii.   Hide a File: When this option is clicked, a different input box
           appears 'Select File to Hide' along with the browse button. If you
           want to hide a file then choose this option and browse the file you
           want to hide. This option will appear as follows:

           2. Choose Data to Hide
           ○ Hide Text Message   ● Hide A File

           Select File to Hide: Browse File

  C. Save Output Image As (PNG Recommended) – This option asks for the
     location to save the edited image with the hidden data embedded in it. You
     can click on the Save Location Path button, which opens your file system
     to browse to your wanted location, name the image file and save. It is
     recommended to use .png extension when saving the image, so that the
     extraction process is smooth.

D. **Hide Data In Image (Button):** After completing all the steps above (A,B,C preferably in sequence), now click this button, to perform the data hiding process. A pop-up dialogue box will confirm the action completed.

Hide Data in Image

- Extract Data (Tab)

  There are 2 options within this Tab:

  A. **Select Image with Hidden Data** – This contains an Input Image Path box, where the location of the image file containing the hidden data is displayed or can be directly typed/copied into. The browse button allows you to find the image file using your file system. Additionally, you can drag and drop the file into the Input Image Path, which will then automatically fill-in the location of the selected image for you.

B. Extracted Data – This contains an 'Extracted Text Preview' box, where the hidden text message in the image file can be read. However, note that if the image hides a file instead of plain text, then the Data in this box might appear gibberish. In that case, to extract the file, use the button 'Save Extracted File', which will prompt your file system to help you navigate the location and name the file, which is extracted from the Image. The 'Save Extracted File As:' box allows you to type/copy the location of the extracted file and name it, if you used the 'Save Extracted File' button then the location will be automatically be filled for you.

C. Extract Data from Image (Button) – After specifying the image file in Step A, you can use this button to perform the extraction. The extracted data will then appear in the 'Extracted Text Preview' box. If its unreadable then use the 'Save Extracted File' Button as the data maybe a file instead of plain text.