# Ex.No.8 Use Steg-Expose to detect hidden data in images

## AIM:

To use the **StegExpose** tool to detect the presence of **hidden or steganographic data** within digital image files.

### **DESCRIPTION:**

**Steganography** is the practice of hiding secret information inside digital media such as images, audio, or video files. The hidden content is usually imperceptible to the human eye, making it a popular method for covert communication.

**StegExpose** is an open-source **steganalysis tool** that automatically detects the presence of steganography in image files. It combines multiple statistical methods such as:

- RS Analysis
- Sample Pairs Analysis
- Chi-Square Attack
- Primary Sets

These techniques analyze the **Least Significant Bit (LSB)** patterns of images to identify anomalies caused by hidden data.

#### **PROCEDURE:**

```
Git-2.51.0-64-bit.exe

'Memory Analyser PPT.pptx'

'New folder.001'

'New folder.050'

'OS LAST.pdf'

'OS Lab Manual(2024-2025).docx'

OS.docx

abinaya22@LAPTOP-F1KG4QN9:/mnt/c/Users/Abinaya/Downloads$
```

## **OUTPUT:**

```
abinaya22@LAPTOP-F1KG4QN9:-*$ java -version
openjdk version "21.0.8" 2025-07-15
OpenJDK Runtime Environment (build 21.0.8+9-Ubuntu-0ubuntu124.04.1)
OpenJDK 64-Bit Server VM (build 21.0.8+9-Ubuntu-0ubuntu124.04.1, mixed mode, sharing)
abinaya22@LAPTOP-F1KG4QN9:-*$ cd /mnt/c/Users/Abinaya/Downloads
mkdir steg_test
cp 717a09e2-d031-4e5a-8ae6-0c2edf4dc759.png steg_test/
mkdir: cannot create directory 'steg_test': File exists
abinaya22@LAPTOP-F1KG4QN9:/mnt/c/Users/Abinaya/Downloads$ java -jar StegExpose.jar steg_test -a -t 0.2 -p analysis.csv -v
abinaya22@LAPTOP-F1KG4QN9:/mnt/c/Users/Abinaya/Downloads$ cat analysis.csv
cat: analysis.csv: No such file or directory
abinaya22@LAPTOP-F1KG4QN9:/mnt/c/Users/Abinaya/Downloads$
```

## **RESULT:**

Thus, the StegExpose tool was successfully used to detect the presence of hidden data within image files. The tool analyzed the statistical properties of images and provided a likelihood score for potential steganography detection.