**EXPERINMENT 12**

**Aim :**  Implementing Compression in Digital Image Processing.

* **Exercises :**

1. **Write an octave code to encode [arithmetic encoding] a 3x3 segment of your grayscale photo. Consider 3x3 segment element as vector of length 9 by considering image elements in the pattern shown below.**

Code :

**Text

Description automatically generated**

Output :

**A picture containing graphical user interface

Description automatically generated**

1. **Write an octave code to decode [arithmetic decoding] the image.**

* Pixels value before encoding

Table

Description automatically generated

* Pixels value after encoding

Table

Description automatically generated

Code :

Text

Description automatically generated

Output :

A picture containing qr code

Description automatically generated