

# Experiment No. 11

**Problem Statement:**

GLCM and ORB Classification

# Introduction:

# SIFT stands for Scale-Invariant Feature Transform. It is a computer vision algorithm used to detect and describe local features in images.

# SIFT works by identifying key points in an image, which are regions that stand out compared to their surroundings. These key points are selected based on their scale and orientation, and are robust to changes in image scale, rotation, and illumination. Once key points are identified, SIFT generates descriptors for each key point based on the image gradient in the surrounding area. These descriptors are used to match key points across multiple images, enabling tasks such as object recognition, image stitching, and 3D reconstruction.

# SIFT was developed by David Lowe in 1999 and has since become a widely-used algorithm in computer vision research and applications.

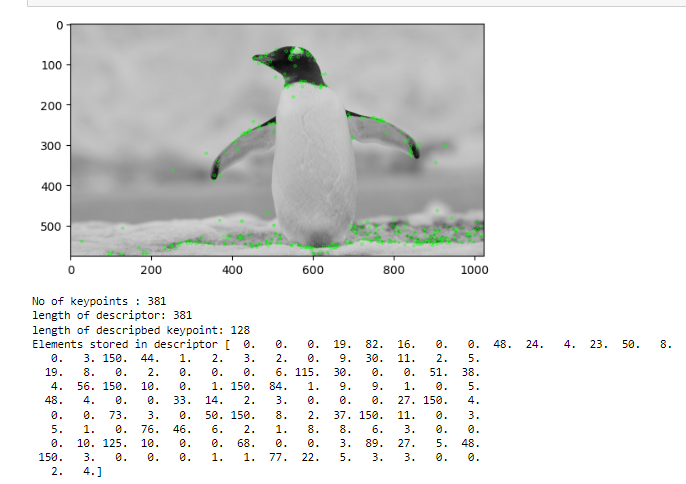
# Flowchart:

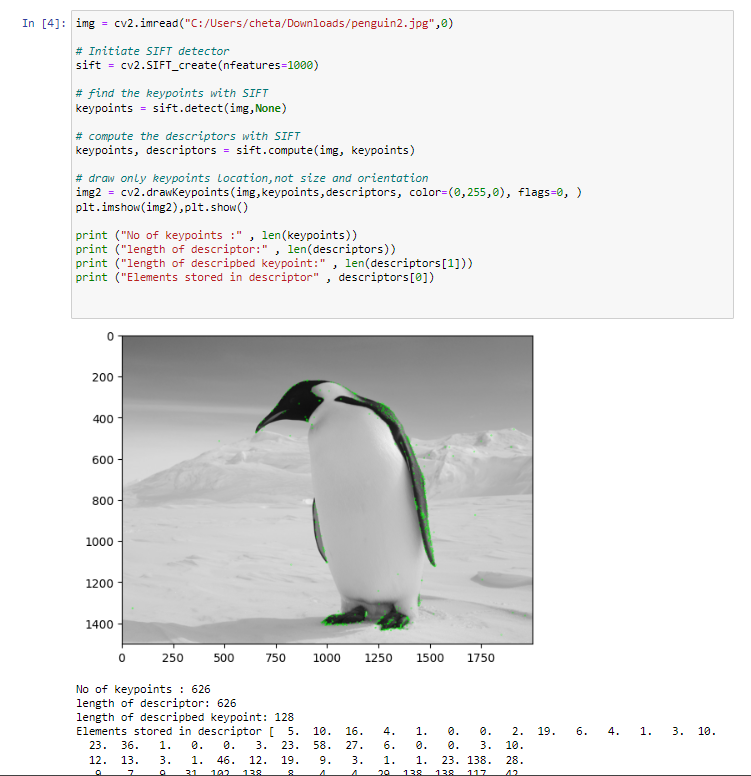
Diagram

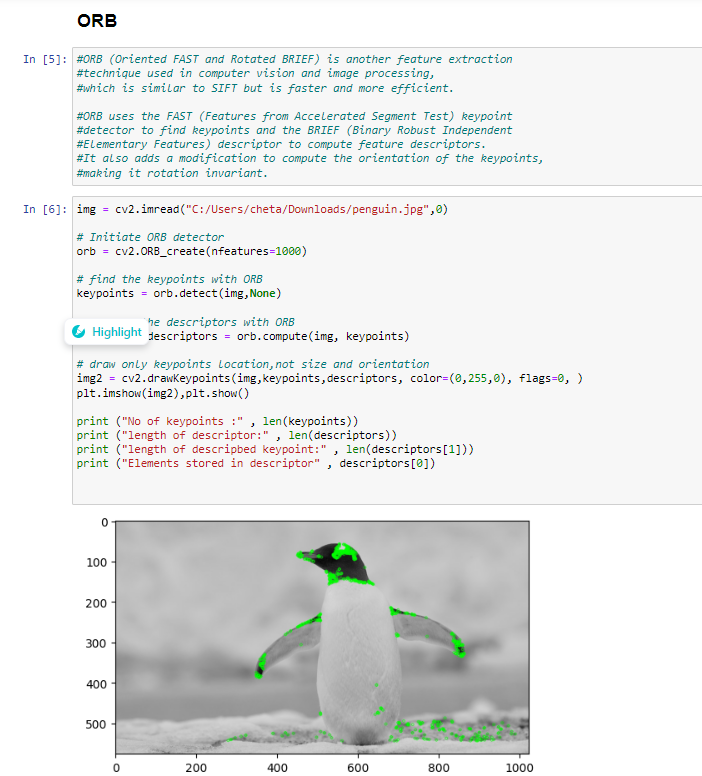
Description automatically generated

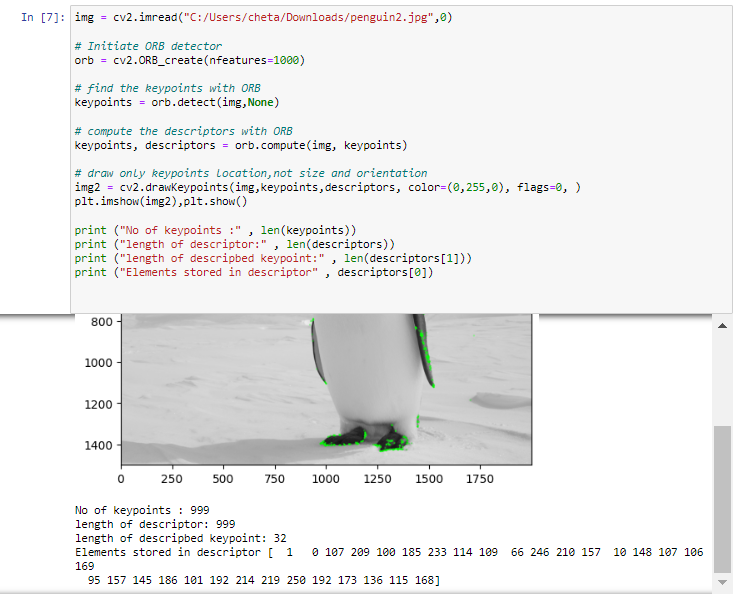
**Code and Outputs:**

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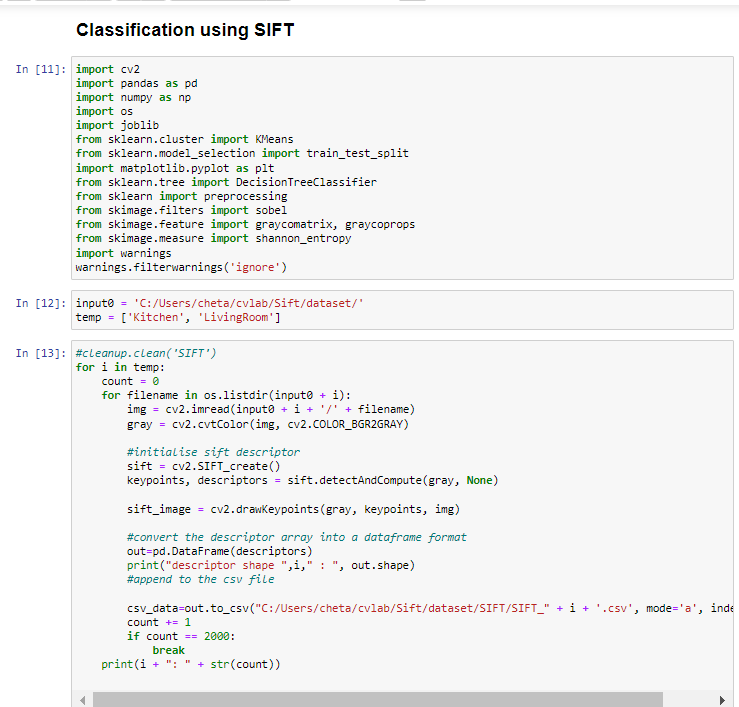
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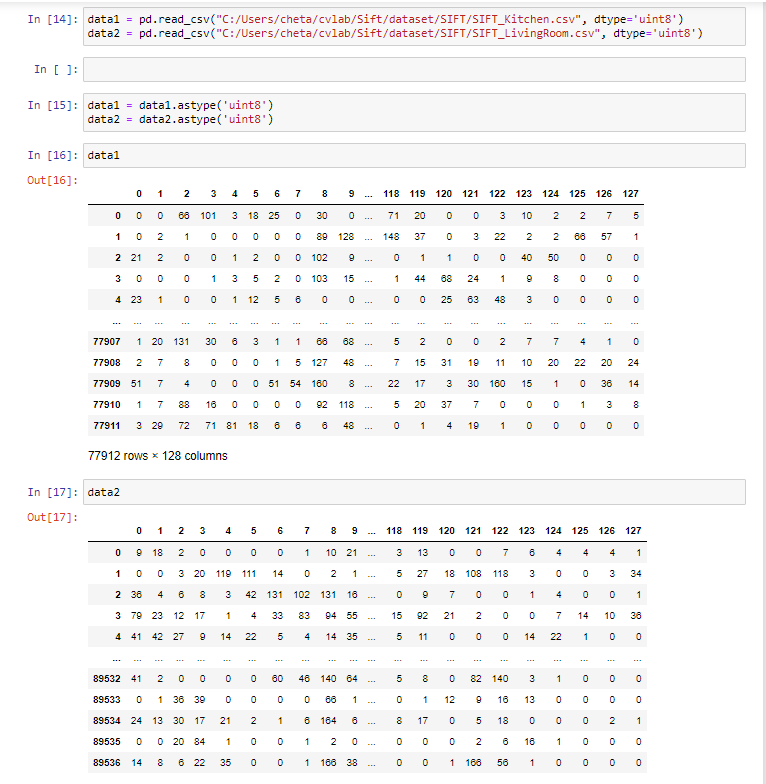
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