## Option #1: Adaptive Thresholding Scheme for Simple Objects

## Setup Instructions

## Prerequisitess

* Python 3.x installed on your system
* OpenCV library installed
* Mount https://github.com/opencv/opencv/blob/master/data/haarcascades/haarcascade\_frontalface\_default.xml

## Installation

To install OpenCV, open your terminal or command prompt and execute the following command:

***pip install opencv-python***

## Script

# Execution

### Load image

A screenshot of a computer

Description automatically generated

## Orginal images :

### Indoor scene

A room with couches and tvs

Description automatically generated

### Outdoor scene

A garden with plants and lights

Description automatically generated

### Closeup Scene

A person holding a watch

Description automatically generated

## Binary Threshholding

A screen shot of a computer code

Description automatically generated

## Results –

### Indoor Scene

A room with desks and computers

Description automatically generated

### Outdoor Scene

A black and white image of a garden

Description automatically generated

### Closeup Scene

A close-up of a watch

Description automatically generated

# Adaptive Thresholding

## Indoor Scene

Additional details emerge

A room with many computers and a few windows

Description automatically generated with medium confidence

### Outdoor Scene

A black and white image of a forest

Description automatically generated

### Closeup Scene

A black and white image of a watch

Description automatically generated