1. **Data Collection:** The hardware component collects data from cameras and sensors placed in strategic locations.

2. **Data Analysis:** The software component analyzes the data collected using advanced algorithms such as motion detection, contour detection, and real-time people tracking.

3. **Alert Generation:** The system generates alerts if any unusual movement or activity is detected.

4. **Alert Notification:** The system sends alerts to end-users via email or SMS.

5. **Monitoring and Tracking:** End-users can monitor and track movement in real-time using the user-friendly interface.

In conclusion, the Smart Surveillance System is designed to be a modular system that can be easily integrated with existing surveillance systems. The system consists of a hardware component for data collection and a software component for data analysis. The system is designed to be user-friendly and includes advanced algorithms for motion detection, contour detection, and real-time people tracking using YOLOv3.

System Tools

The Smart Surveillance System is developed using a combination of various software tools and technologies. The system tools used in the project include:

Python

Python is an open-source programming language that is widely used for developing various applications, including machine learning and computer vision-