Result

This project is a CNN-based fruit freshness classifier that can automatically identify whether a fruit is fresh or rotten. It focuses on three types of fruits: apples, bananas, and oranges. The main goal is to help reduce human effort and time in the agricultural industry by using a machine learning model to detect rotten fruits, which, if left unchecked, can spoil fresh ones. The system uses a Convolutional Neural Network (CNN) to extract features from the fruit images and classifies them using a Softmax layer. The model was trained on images collected from various sources and achieved an accuracy of 93.78%. It outperformed transfer learning methods in terms of classification performance. To use the model, users need to download the required files (static, templates, and app.py), place them in a single folder, and run the application using the command `python app.py`. Once the server starts, a link will appear in the output, which can be opened in a browser. Users can then upload an image to check whether the fruit is fresh or rotten.

# Output Screenshots

Below are the output screenshots of the system in action. 



