**Plot and Confusion Matrix:**

A graph on a screen

Description automatically generated

A screenshot of a computer

Description automatically generated

1. Briefly describe your findings regarding model building, insights, and evaluation.

**Accuracy:** The model achieved an overall accuracy of 74%, indicating its ability to correctly classify images into one of the ten categories. This is a decent accuracy, but depending on the application, further improvements may be sought.

**Confusion Matrix:** Analyzing the confusion matrix provides insights into the model's performance for each class. The classification report provides insights into the precision, recall, and F1-score for each class. Classes 1 and 8 show high precision and recall, while class 3 has lower performance.

1. Where can you use this algorithm in the industry? - Give one practical application

and describe it. (Include this in your report)

**Image Classification in E-commerce:**

Scenario: Consider an e-commerce platform with a vast product catalog.

Application: The trained image classification model can be used to automatically categorize and tag product images. For instance, it can identify whether a product is an "Automobile," "Airplane," "Furniture," etc.

**Benefits:** This automation streamlines product catalog management, enhances search functionality, and improves the overall user experience. It can also facilitate targeted marketing by accurately categorizing products.