

Data Collection:

- Snapshots were taken from different categories in the Slash app.
- Images were split into 4 categories:
 - 0 => Nutrition
 - 1 => Fashion
 - 2 => Games
 - 3 => Accessories
- These categories were chosen as a proof of concept and for ease of expanding the model to handle more categories. They also have high-quality images requiring less preprocessing.
- **Choosing the Model:**
 - Due to the small dataset, training a model from scratch was not feasible.
 - Pretrained models were considered, such as ResNet, MobileNet, and VGG.
 - VGG16 was selected as it showed the best performance for the use case.
 - The weights were frozen, and only the last layer was fine-tuned using softmax.
 - Training accuracy was 100%, but test accuracy was around 92%, indicating some overfitting. This can be addressed by adding more training examples.
- **Save the Model:**
 - The trained model was saved for future inference.
- **Inference on Different Images:**
 - Inference was performed on four different images, and the results are as follows:

Predicted Class: Games



Predicted Class: Fashion



Predicted Class: Accessories



Predicted Class: Fashion



Predicted Class: Nutrition

