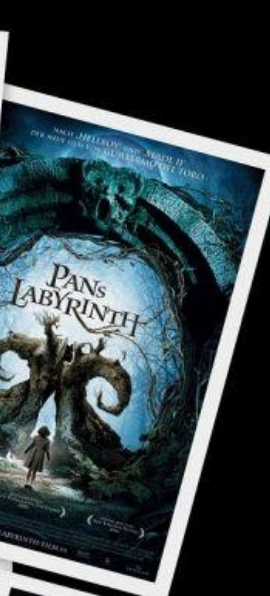




# Movie Genre Classification

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# Problem Statement

- Multi labeled movie genre classification based on posters analysis, which is achieved through extracting some elements from the poster such as the color, facial expression, objects and many more.

## Milestone 1 results

- Still running epochs
- Result obtained so far from training the model on 4 splits of the data is 67.68% training accuracy

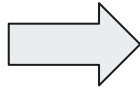




## Next steps and timeline for the rest of the project.

### Run 50 epoch

- Currently max reached 25



### Balance Image

- Already added ~10k images
- Augment before balance (if  $ds < <$ )

### Predict Revenue\*

### Preprocess images

- Keep only RGB images
- Using keras preprocessing before training

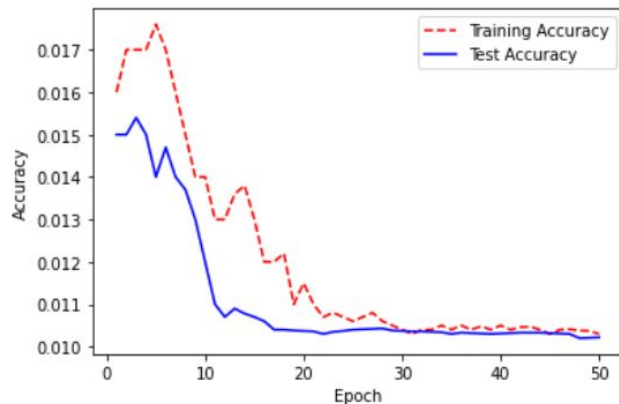
### Alter Model

- FC/Num of layer
- ResNet50 gives high acc
- Use YOLO feature extraction\*

\* means maybe

## Running 50 epoch

- The accuracy decreased and unexpectedly the loss after 50 epoch was 5000+



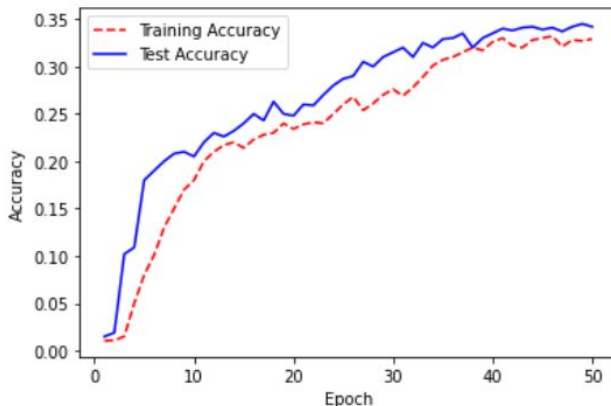


## Approaches taken to find the issue:

- **Use plain Adam/SGD**
  - Suggested by others facing loss going to inf problem
  - No improvement
- **Use ResNet50**
  - No improvement
- **Use Keras image preprocessing**
  - No improvement

# Approaches taken to find the issue:

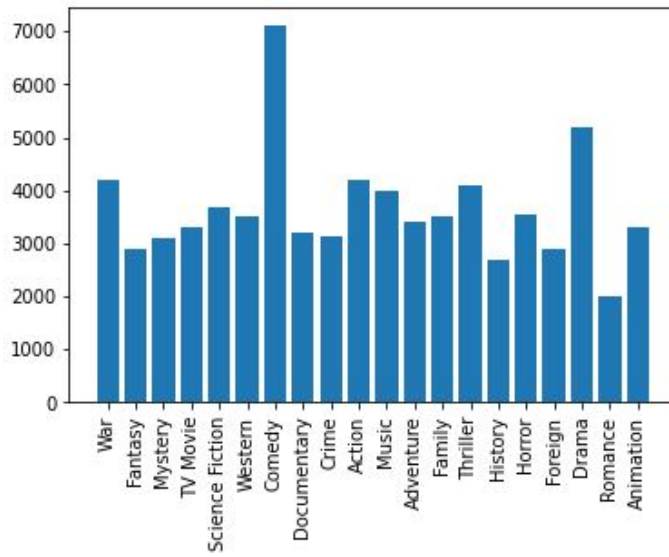
- **Shuffle entire dataset:**
  - No improvement
- **Sort dataset and remove first 9k images (from 1900 - 1990)**
  - Finally better results (best accuracy reached 34%)



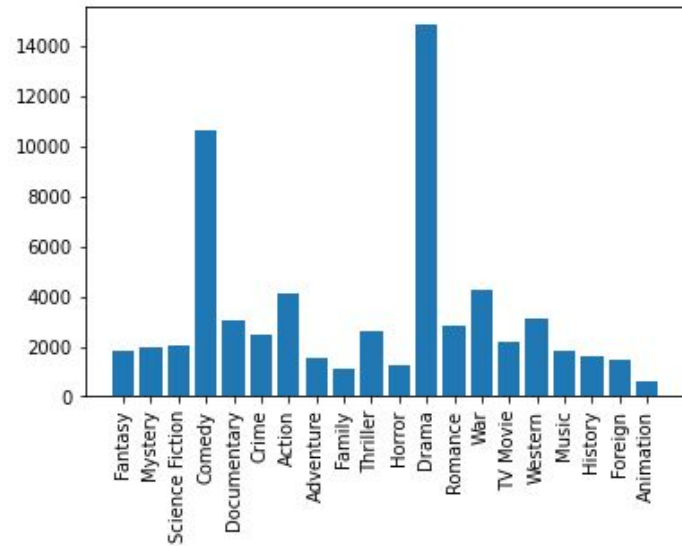


# Balance dataset

## - After Balancing



## Before Balancing



## Accuracy After balancing

