Image Scraping and Classification Project

**Problem Statement:**

Images are one of the major sources of data in the field of data science and AI. This field is making appropriate use of information that can be gathered through images by examining its features and details. We are trying to give you an exposure of how an end to end project is developed in this field.

The idea behind this project is to build a deep learning-based Image Classification model on images that will be scraped from e-commerce portal. This is done to make the model more and more robust.

This task is divided into two phases: Data Collection and Mode Building.

**Data Collection Phase:** In this section, you need to scrape images from e-commerce portal, **Amazon.in**. The clothing categories used for scraping will be:

* Sarees (women)
* Trousers (men)
* Jeans (men)

You need to scrape images of these 3 categories and build your data from it. That data will be provided as an input to your deep learning problem. You need to scrape minimum 200 images of each categories. There is no maximum limit to the data collection. You are free to apply image augmentation techniques to increase the size of your data but make sure the quality of data is not compromised.

Remember, in case of deep learning models, the data needs to be big for building a good performing model. More the data, better the results.

**Model Building Phase:** After the data collection and preparation is done, you need to build an image classification model that will classify between these 3 categories mentioned above. You can play around with optimizers and learning rates for improving your model’s performance.

**Submission Details:**

In form of submission, you need to share the following:

* Zipped file of your data directory containing the scraped images of each category.
* Web Scraping script used for scraping the images.
* Jupyter Notebook that contains the mode building section.
* A detailed report of the project and its implementation.
* A power point presentation for the project.