Project planning phase

Fabric pattern classification is a crucial task in textile, fashion, and e-commerce industries. Accurate recognition of fabric patterns helps in cataloging products, enabling visual search, and supporting automated quality control. Deep learning, particularly Convolutional Neural Networks (CNNs), has revolutionized image classification by learning hierarchical features directly from raw data, making it highly suitable for classifying fabric patterns.

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2. Objectives

- To build a deep learning model for automatic fabric pattern classification.
- To use CNNs to extract texture and pattern features.
- To evaluate the model on real-world fabric datasets.

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3. Fabric Pattern Categories Common fabric pattern categories include:

- Floral
- Striped
- Polka Dots
- Plaid
- Geometric
- Abstract

Date	**19 may to 30 June**

Sprint Duration	**1 week (6 working days)**
Project Name	**Fabric pattern using deep learning**
Duration	**4 weeks**

Project: timeline overview

Product Backlog & Sprint Planning

Sprint -1	**Data set prepration**	**USN-1**	**As data enginner I want to collect and label fabric images from sources**	**3**	**High**
Sprint-2	**preprocessing**	**USN-2**	**As a team we want to split and preprocess the dataset**	**2**	**High**
Sprint-3	**Model Devoplement**	**USN-3**	**As a developer I want to train and validate model**	**5**	**Medium**
Sprint-4	**Model buliding**	**USN-4**	**As a tester I want to test model accuracy using unseen pattern**	**2**	**High**
Sprint-5	**Visualization**	**USN-5**	**As a UI designer I want to tune hyperparameters and performance**	**4**	**Medium**
Sprint-6	**Reporting**	**USN-6**	**As a team we want to document results and final project**	**3**	**Medium**

✅Tools used for planning

.Excel / Google sheets for timeline tracking

.Tello / Nation for task breakdown

.Manual daily progress updates