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| Project Title | Picture Book Application |
| Technologies | **Software Development** |
| Domain | **E-commerce** |

**Problem Statement:**

Picture Book is a cross platform image organizer and image viewer for organizing and editing digital photos. Application has a file importing and tracking features, as well as tags, facial recognition, and collections for further sorting. It offers several basic photo editing functions including colour enhancement, cropping. It provides a unique dashboard for a user to interact with, user can even mark their favourite photos. User can Create collages using provided templates. Support multiple image formats.

**Approach:**

Create a user-friendly dashboard using advance python frameworks, firebase etc. Try out different algorithms that makes dashboard unique and more interactive.

**User Class:**

Users of the system should be able to view and organize their images in different formats. The images will be automatically moved to specific folder created by the user after the facial detection of the image. The users will have access to image editing operations (like crop, brightness control, contrast control, rotation, etc.).

**Operating Environment:**

1. Client-Server System
2. Operating System : Windows
3. UI : Figma

**Assumption Dependencies:**

* The images with unidentified facial features will be directed to the default folder

**Project Evaluation metrics:**

**Code:**

* You are supposed to write a code in a modular fashion.
* Safe: It can be used without causing harm.
* Testable: It can be tested at the code level.
* Maintainable: It can be maintainable, even as your codebase grows.
* Portable: It work same in every environment (operating system).
* Maintain code on GitHub.
* We have to keep our GitHub repo public so that anyone can check your code.
* Proper readme file needs to be maintained for any project development.
* Include basic workflow and execution of the entire project in the readme file on GitHub.

**Cloud:** 

* We are going to use firebase for storing the images for the time being.

**API Details or User Interface:**

* We are going to use firebase API for storing the images as draft. For API testing we are going to use Postman.

**Requirements:**

* Python Programming, XML, HTML, CSS, JavaScript, PHP, Computer Vision, Machine Learning, Figma, Java.

**Logging:**

* Logging will be done using python logging library to keep the details of every action performed by code.

**Ops Pipeline:**

* If possible, we will try to use AI ops pipeline for project deployment Ex MLflow.

**Deployment:**

* We can host our model in the cloud platform, edge devices, or maybe local, but with proper justification of our system design. Ex: Heroku, GitHub etc.

**Solution Design:**

* System Architecture
* Latency for model response
* Optimized solution: we will try to optimize solution on code level, architecture level.
* High-level Document
* Low-level Document
* Architecture
* Wireframe
* Project Code
* Detail Project Report