**IMPLEMENTATION:**

**MODULES:**

* ML User
* Admin
* Collecting dataset
* Training
* Testing KNN
* Solutions

**MODULES DESCRIPTION:**

**Admin:**

The Admin module allows administrators to manage the system and its users. The Admin can perform the following tasks:

* Create and manage users: The Admin can create new ML User accounts, update existing accounts, and delete accounts.
* Manage models: The Admin can monitor the performance of deployed models and update them as needed.
* Manage system resources: The Admin can ensure that the system has enough resources to run smoothly and efficiently.

**Machine learning User**:

The ML User module allows users to interact with the system to perform the following tasks:

* User register:  helps users to register first.
* Train models: Users can train machine learning algorithms.
* Evaluate models: Users can evaluate the trained models on held-out test sets to assess their performance.
* Deploy models: Users can deploy the trained models to production for yoga pose detection.

**Collecting dataset:**

Any implementation of an algorithm needs a dataset. Therefore, during the first stages of the KNN. KNN uses all of the data collected during categorization as training instead of having a separate training phase, making it a lazy learning method. Due to its lack of assumptions on the underlying data, KNN is also a non-parametric learning algorithm.

**Training:**

Use one of the approaches outlined in [15] to determine the distance between each row of training data and test data. Hamming, Manhattan, or Euclidean distance. Now arrange them according to the distance value in ascending order. The sorted array's top K rows are chosen in the following phase. Now, it will assign a class to the test point based on the most prevalent class of these rows.

**Testing KNN:**

Computes the similarity between an input sample and each training instance to create predictions just-in-time . In order to match the structure of your input data, there are numerous distance measures available. The outcomes are determined, and classification is completed.

**Solutions:**

Providing Solutions to the hairfall based on the predicated result.