

Low Level Design

Book Recommendation System

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Document Control

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Contents

1. Introduction.....	1
1.1. What is Low-Level design document?.....	1
1.2. Scope.....	1
2. Architecture.....	2
3. Architecture Description.....	3
3.1. Data Description.....	3
3.2. Data Ingestion.....	3
3.3. Data Transformation.....	3
3.4. Data Insertion into Database.....	3
3.5. Export Data from Database.....	3
3.6. Data Pre-processing.....	3
3.7. Data Clustering.....	3
3.10. Model Building.....	4
3.11. Data from User.....	4
3.12. Data Validation.....	4
3.13. User Data Inserting into Database.....	4
3.14. Data Clustering.....	4
3.15. Deployment.....	4

1. Introduction

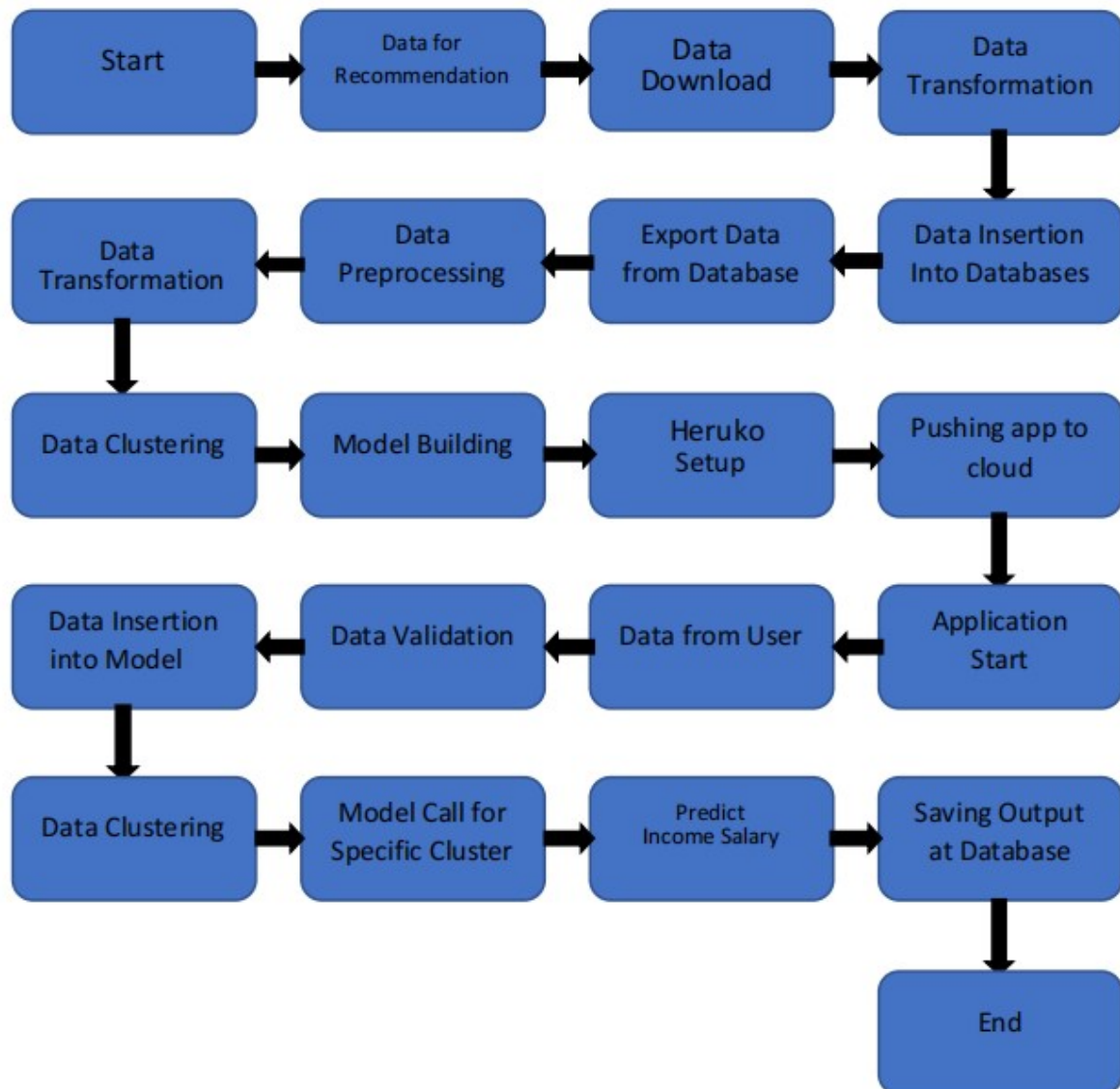
1.1. What is Low-Level design document?

The goal of LLD or a low-level design document (LLDD) is to give the internal logical design of the actual program code for Food Recommendation System. LLD describes the class diagrams with the methods and relations between classes and program specs. It describes the modules so that the programmer can directly code the program from the document.

1.2. Scope

Low-level design (LLD) is a component-level design process that follows a step-by-step refinement process. This process can be used for designing data structures, required software architecture, source code and ultimately, performance algorithms. Overall, the data organization may be defined during requirement analysis and then refined during data design work

2. Architecture



3. Architecture Description

3.1. Data Description

A book recommendation system is a tool that helps readers find books that match their preferences and interests. It can use different methods, such as analyzing the user's reading history, ratings, reviews, or preferences, or comparing the user's profile with other similar users or books.

3.2. Data Ingestion

Data is store in Git Hub so we receive git-hub link.
Data is Downloaded into local system and Processed further

3.3. Data Transformation

In the Transformation Process, we will convert our original data set which is in JSON format to CSV Format. And will merge it with the Scrapped data set.

3.4. Data Preprocessing

Data Pre-processing steps we could use are Null value handling, filling those null value with suitable values, Data Encoding and Data Standard Scales after scaling the data then we save that Preprocessing model as a pickle for further use.

Data leakage is prevented by applying fit_transform and saving data into NP.nyz format.

3.5. Export Data from Database

Data Export from Database .

3.6. Model Building

In content-based filtering, the recommendation algorithm suggests books similar to those the user has previously enjoyed. The focus is on finding items that are content-wise similar to the ones the user has interacted with. For example, if a reader has liked mystery novels by Agatha Christie, the system might recommend other mystery books with similar themes or authors.

3.7. Data from User

Data contains various reviews and customer ratings about the book with book information about Name, Author, rating, image link etc.

3.8.Data Validation

Given data is validated on the bases of there name data type schema Column name and shape.
These Information is already decided with negotiation with Clients. According to agreement and conditions we Validate the data .

3.8. Recipe Recommendation & Saving Output in Database

After calling model Recipe/Output will be recommended, this output will be display

3.9. Deployment

We will be deploying the model to Heruko.

