Low Level Design

Adult Census Income Prediction

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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

Architecture

Data Preprocessing

Data Validation

Data Ingestion

Start

SSSSS

Data Transformation

Model Building

Model Evaluation

Model Saving

Pushing app to cloud

Cloud Setup

Data from User

Application Start

End

Prediction

Data Validation

Data Preprocessing

3. **Architecture Description**

3.1. **Data Description**

Get the data having 14 columns and the last column having the information about the adult having wages greater than 50k or less than 50k .

‘>50K’ represent greater than 50K salary.

‘<=50K’ represent less than 50K salary.

3.2. **Data Validation**

In this step , we perform data validation.

Number of Columns - We validate the number of columns present in the files;

Name of Columns - The name of the columns is validated and should be the same as given in the schema file.

The datatype of columns - The datatype of columns is given in the schema file.

3.3. **Data Pre-processing and transformation**

Check for null values in the columns. If present, impute the null values using the KNN imputer and transform data into standard scaler.

3.4 **Model building evaluation and Deployment**

Build the model and evaluate the model if model better than previous model then deploy the to model to application otherwise use the previous one.