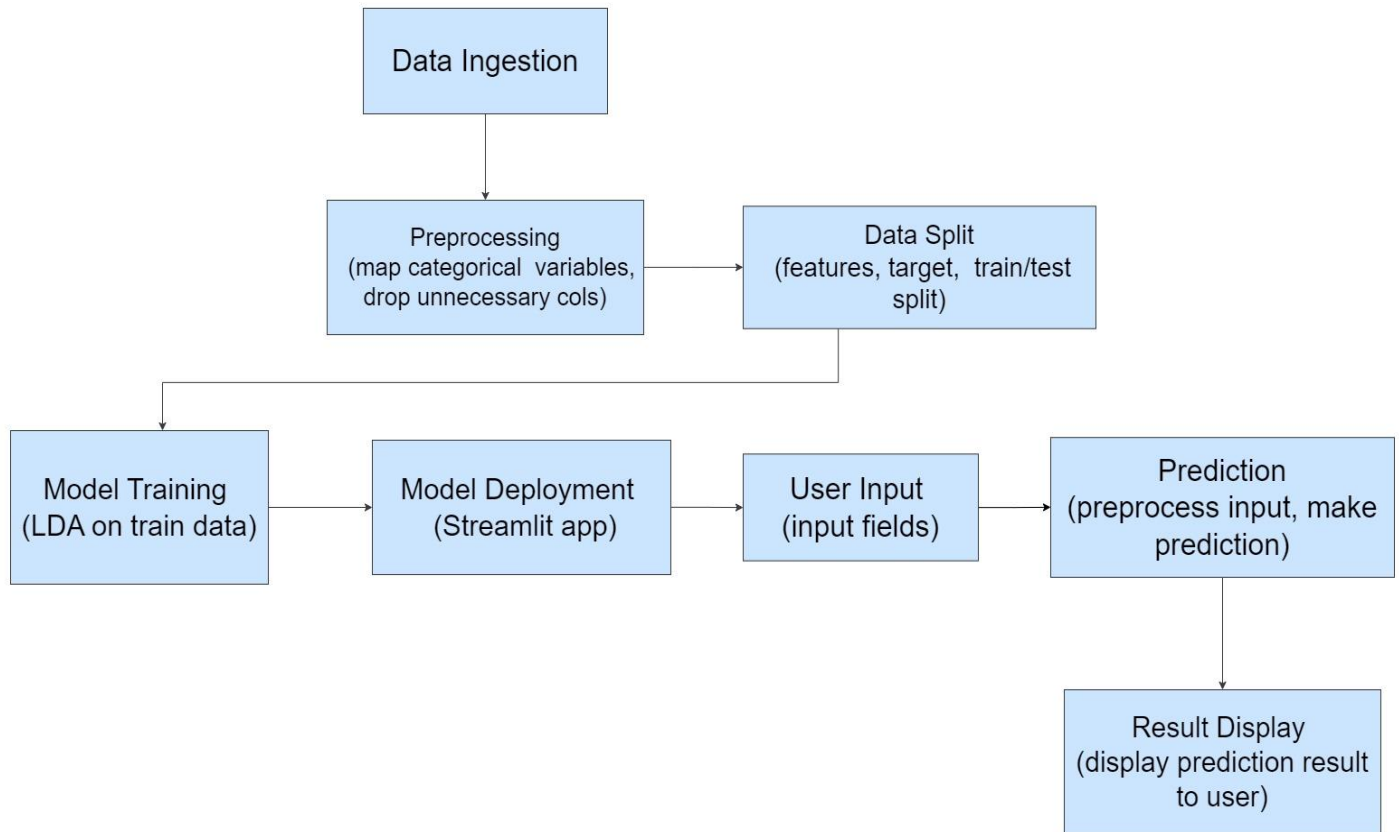


# Architecture

Architecture diagram:



Here is an architecture for the machine learning code:

## Data Ingestion

- Load dataset from CSV file (**sample\_dataset.csv**)
- Preprocess data:
  - Map categorical variables to numerical values
  - Drop unnecessary columns (**salary, sl\_no, gender**)

## Data Split

- Split preprocessed data into:
  - Features (**x**)
  - Target variable (**y**)
- Split data into training and testing sets (**xtrain, xtest, ytrain, ytest**)

## **Model Training**

- Train a Linear Discriminant Analysis (LDA) model on the training data (**xtrain, ytrain**)

## **Model Deployment**

- Create a Streamlit app to deploy the trained model
- Define input fields for the user to enter their details
- Preprocess user input data
- Make a prediction using the trained model
- Display the prediction result to the user