

File Structure:

File Name	Comments
CodeModules	After uploading the derived attribute python code, the code is stored in this file
csvfiles	Before sending the final csv file to frontend, it is stored in this directory
schemafiles	Before sending the final schema file to frontend, it is stored in this directory
static	To store any images,docs required for frontend. Also to save respective css and js files for the html file.
templates	Contains all html files
treefiles	Before sending the final tree file to frontend, it is stored in this directory
app.py	The main flask file to handle HTTP requests.
datageneration_numerictarget.py	Code for generating final csv data when target variable is numeric
distribution_datagen.py	Code for generating final csv data for different distributions: Power law and gaussian
inc_tree_helper.py	For the Incremental CSV feature
perfect_prediction_model.py	Code for calculating the accuracy- categorical target
perfect_prediction_model_numerictarget	Code for calculating the MSE- numerical target
tree_helper.py	Code for building tree using the frontend tree data
requirements.txt	Packages need to install

How to run?

pip install -r requirements.txt

python app.py

API Endpoints for app.py:

Endpoints	Comments
/	Renders "homepage.html" (inside templates folder)
/getIncrementalCSV	Renders "incrementalCSV.html" (inside templates folder).
/getIncrementalTreeData	Returns required data
/powerlawgeneration	Returns the power law data . First gets the required data from frontend and then calls the function "powerlawdistribution" from distribution_datagen.py.
/gausslawgeneration	Returns the Gaussian law data . First gets the required data from frontend and then calls the function "guassindistribution" from distribution_datagen.py.
/getData	Gets called after clicking the Submit button ("addAttribute.html"). Renders the data received from frontend and then redirects to page "index.html" if the target variable is categorical or "numerictarget.html" if the target variable is numerical.
/getlaunchtool	Renders "addAttribute.html" (inside templates folder)
/getTree	Gets called after clicking the Submit button ("index.html"). Renders the data received from frontend and then redirects to page "downloadData.html".
/generateData	Returns the final csv data. If the target variable is categorical, call the function "generate_data" from tree_helper.py. If target variable is numerical, calls the function "generate_data" from datageneration_numerictarget.py
/perfectpredictionmodel	Returns the accuracy .

	Gets called after clicking the button "Validate and get the accuracy"(downloadData.html). Calls the function perfect_prediction_model from perfect_prediction_model.py.
/perfectpredictionmodel_numerictarget	Returns the accuracy . Gets called after clicking the button "Validate and get the accuracy"(numerictarget.html). Calls the function perfect_prediction_model_numtar from perfect_prediction_model_numerictarget.py.
/schemasave	Returns the saved schema file in directory "schemafiles"
/treesave	Returns the saved tree file in directory "treefiles"
/downloadcsv	Returns the saved csv files in directory "csvfiles"
/downloadcsvdistribution	Returns the saved csv files in directory "csvfiles"