About Variables used in CART Implementation

Variable	Purpose
algorithm	Determines if tree performs classification or regression ("Classification"/"Regression")
df	Main DataFrame holding the dataset loaded from CSV
target_column	Name of the target/dependent variable column
dataset_features	Dictionary mapping feature names to their data types
num_features	Count of input features (excluding target)
global_stdev	Standard deviation of regression target (used for stopping condition)
Function Variables	
possible_names	Possible target column name variations to check
name	Temporary variable for target column detection loop
col	Temporary variable for column iteration
cdf	Copy of DataFrame for numeric feature processing
column_name	Name of current numeric column being processed
entropy	Current entropy value (parameter, unused in calculations)
unique_values	Sorted unique values in numeric column
subset_ginis	Stores Gini impurities for all thresholds (classification)
subset_red_stdevs	Stores stddev reductions for all thresholds (regression)
threshold	Current split point being evaluated
subset1, subset2	Data subsets created by threshold split
subset1_rows, subset2_rows	Row counts of split subsets
total_instances	Total rows in current dataset
gini_subset1, gini_subset2	Gini impurities for subsets
superset_stdev	Original stdev before split (regression)
subset1_stdev, subset2_stdev	Stdevs of split subsets
winner_one	Index of best threshold
winner_threshold	Optimal split value
rows	Number of rows in current dataset
decisions	Value counts of target column
count	Count of current class in entropy calculation
class_probability	Probability of class in entropy formula
ddf	Input DataFrame for split evaluation
stdev	Original stdev for regression target
columns	Number of feature columns
feature_columns	List of feature names (excluding target)
ginis	Gini impurities for all features (classification)
reducted_stdevs	Stdev reductions for all features (regression)

temp_df	Temporary DataFrame for feature processing
classes	Unique values in current feature
weighted_metric	Accumulated impurity/stdev reduction
class_val	Current feature value being evaluated
subset	Data subset for current feature value
subset_size	Rows in current subset
best_idx	Index of best feature
indent	Current tree depth for indentation
root	Current recursion depth
charForResp	Wrapping character for output ("'" or "")
tmp_root	Stores original recursion depth
features	Remaining features to split on
best_feature	Selected feature for current split
is_numeric	Flag for numeric feature type
value	Current feature value being processed
subset	Data subset after split
is_leaf	Flag for terminal node
decision	Final prediction value (class/regression value)
condition	Formatted split condition for printing