

FP Growth Algorithm

The FP-Growth (Frequent Pattern Growth) algorithm is an efficient and scalable method for mining the complete set of frequent itemsets from a transaction database without generating candidate itemsets, unlike the Apriori algorithm. It is particularly powerful in situations where the database is large and contains many frequent patterns.

Steps of the FP-Growth Algorithm:

Step-1: Build the FP-Tree

Scan the transaction database to find all frequent items.

Sort the items in each transaction by their frequency in descending order.

Insert each sorted transaction into the FP-tree, incrementing the count for existing items.

Step-2: Mine the FP-Tree

Starting from the header table, extract the frequent itemsets by traversing the FP-tree.

Construct conditional FP-trees for each item and recursively mine these trees to find more frequent itemsets.