

Symbol	Definition
I	An unordered set of m distinct items, $I = \{i_1, i_2, \dots, i_m\}$.
D	A quantitative database, $D = \{T_1, T_2, \dots, T_n\}$.
QSD	A quantitative sequential database = $\{s_1, s_2, \dots, s_n\}$.
TID	Each $T_n \in D$ has a unique transaction identifier.
X	A k -itemset having k distinct items $\{i_1, i_2, \dots, i_k\}$.
$sup(X)$	The support of an itemset X in D or QSD .
$q(i_j, T_q)$	The purchase quantity of an item i_j in transaction T_q .
$pr(i_j)$	The predefined unit profit of an item i_j .
$u(i_j, T_q)$	The utility of an item i_j in transaction T_q .
$u(X, T_q)$	The utility of an itemset X in transaction T_q .
$tu(T_q)$	The sum of the utilities of items in transaction T_q .
$minsup$	A predefined minimum support threshold.
$minconf$	A predefined minimum confidence threshold.
$minutil$	A predefined minimum high-utility threshold.
TWU	The transaction-weighted utility of a pattern.
$TWDC$	The transaction-weighted downward closure property.
$HTWUI$	A high transaction-weighted utilization itemset.
HUI	A high-utility itemset.
$HUPM$	High-utility or utility-oriented pattern mining.
k -itemset	An itemset with k number of items in itself.