**Step 1:**

Support(A) = 5/5 = 1.0 (100%)

Support(B) = 2/5 = 0.4 (40%)(X)

Support(C) = 3/5 = 0.6 (60%)

Support(D) = 4/5 = 0.8 (80%)

**Frequent 1-itemsets:**

We only keep the itemsets that meet or exceed the support threshold of 0.5.

* Frequent 1-itemsets: {A}, {C}, {D}

**Step 2: Generate candidate itemsets of length 2 and calculate their support**

{A, C}, {A, D}, {C, D}

Support(A, C): Appears in transactions 2, 3, and 4 → 3/5 = 0.6

Support(A, D): Appears in transactions 1, 2, 3, and 5 → 4/5 = 0.8

Support(C, D): Appears in transactions 2 and 3 → 2/5 = 0.4(X)

**Frequent 2-itemsets:**

We only keep the itemsets that meet or exceed the support threshold of 0.5.

* Frequent 2-itemsets: {A, C}, {A, D}

**Step 3: Generate candidate itemsets of length 3 and calculate their support**

{A, C, D}

Support(A, C, D): Appears in transaction 3 → 1/5 = 0.2(X)

**Frequent 3-itemsets:**

* Since the support of {A, C, D} is 0.2, which is below the threshold of 0.5, there are no frequent 3-itemsets.

Final Result:

Frequent 1-itemsets: {A}, {C}, {D}

Frequent 2-itemsets: {A, C}, {A, D}

Frequent 3-itemsets: None

