```
// Partition R into k partitions
foreach tuple r ∈ R do
    read r and add it to buffer page h(rᵢ);          // flushed as page fills

// Partition S into k partitions
foreach tuple s ∈ S do
    read s and add it to buffer page h(sⱼ);          // flushed as page fills

// Probing phase
for l = 1, . . . , k do {

    // Build in-memory hash table for Rₗ, using h2
    foreach tuple r ∈ partition Rₗ do
        read r and insert into hash table using h2(rᵢ) ;

    // Scan Sₗ and probe for matching Rₗ tuples
    foreach tuple s ∈ partition Sₗ do {
        read s and probe table using h2(sⱼ);
        for matching R tuples r, output ⟨r, s⟩ };

    clear hash table to prepare for next partition;
}
```

Figure 14.12   Hash Join