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| **Itinerary in C++** | |
| #include <iostream>  #include <unordered\_map>  #include <string>  using namespace std;  int main() {  unordered\_map<string, string> map;  map["Chennai"] = "Banglore";  map["Bombay"] = "Delhi";  map["Goa"] = "Chennai";  map["Delhi"] = "Goa";  // Create a hashmap to mark if a city is a potential source  unordered\_map<string, bool> psrc;  for (auto it = map.begin(); it != map.end(); ++it) {  string src = it->first;  string dest = it->second;  psrc[dest] = false; // Destination city cannot be a source  if (psrc.find(src) == psrc.end()) {  psrc[src] = true; // Source city if it is not a destination in the map  }  }  string src = "";  for (auto it = psrc.begin(); it != psrc.end(); ++it) {  if (it->second == true) {  src = it->first;  break;  }  }  // Print the itinerary  while (true) {  if (map.find(src) != map.end()) {  cout << src << " -> ";  src = map[src];  } else {  cout << src << ". ";  break;  }  }  return 0;  } | **Step 1: Initialize Data**   * **Input Map (City Routes):**   Chennai → Banglore  Bombay → Delhi  Goa → Chennai  Delhi → Goa   * **Creating psrc (Potential Source Map)**:   + **Initially Empty**   **Step 2: Mark Potential Sources (psrc Construction)**   | **Iteration** | **Source (src)** | **Destination (dest)** | **Updated psrc (Potential Source Map)** | | --- | --- | --- | --- | | 1 | Chennai | Banglore | { Banglore → false, Chennai → true } | | 2 | Bombay | Delhi | { Banglore → false, Chennai → true, Delhi → false, Bombay → true } | | 3 | Goa | Chennai | { Banglore → false, Chennai → false, Delhi → false, Bombay → true, Goa → true } | | 4 | Delhi | Goa | { Banglore → false, Chennai → false, Delhi → false, Bombay → true, Goa → false } |  * **Final psrc Map:**   Bombay → true (Only Source)  Banglore → false  Chennai → false  Delhi → false  Goa → false  **Step 3: Find the Start City**   * The only city with true in psrc is **"Bombay"**. * **Start src = "Bombay"**.   **Step 4: Print the Itinerary**   | **Iteration** | **Current src** | **Next City (map[src])** | **Printed Output** | | --- | --- | --- | --- | | 1 | Bombay | Delhi | Bombay -> | | 2 | Delhi | Goa | Delhi -> | | 3 | Goa | Chennai | Goa -> | | 4 | Chennai | Banglore | Chennai -> | | 5 | Banglore | (Not Found) | Banglore. |   **Final Output**  Bombay -> Delhi -> Goa -> Chennai -> Banglore. |
| Output:  Bombay -> Delhi -> Goa -> Chennai -> Banglore. | |