

Facing the sun in C++																																															
<pre> #include <iostream> #include <vector> using namespace std; class FacingTheSun { public: static int countBuildings(vector<int>& ht) { int lmax = ht[0]; int count = 1; for (int i = 1; i < ht.size(); i++) { if (ht[i] > lmax) { count++; lmax = ht[i]; } } return count; } }; int main() { // Hardcoded input int n = 6; vector<int> ht = {7, 4, 8, 2, 9, 6}; // Call the countBuildings function to count // buildings facing the sun int result = FacingTheSun::countBuildings(ht); // Print the result cout << "Number of buildings facing the sun: " << result << endl; return 0; } </pre>			<p>Input:</p> <p>ht = {7, 4, 8, 2, 9, 6}</p> <p>🔍 Dry Run Table:</p> <table> <tr> <th>Index (i)</th><th>Height ht[i]</th><th>Current lmax</th><th>Is ht[i] > lmax?</th><th>Count</th><th>New lmax</th></tr> <tr> <td>0</td><td>7</td><td>7</td><td>- (first building)</td><td>1</td><td>7</td></tr> <tr> <td>1</td><td>4</td><td>7</td><td>No</td><td>1</td><td>7</td></tr> <tr> <td>2</td><td>8</td><td>7</td><td>Yes</td><td>2</td><td>8</td></tr> <tr> <td>3</td><td>2</td><td>8</td><td>No</td><td>2</td><td>8</td></tr> <tr> <td>4</td><td>9</td><td>8</td><td>Yes</td><td>3</td><td>9</td></tr> <tr> <td>5</td><td>6</td><td>9</td><td>No</td><td>3</td><td>9</td></tr> </table> <p>✅ Final Result:</p> <p>Number of buildings facing the sun = 3</p> <p>🖨 Output:</p> <p>Number of buildings facing the sun: 3</p>			Index (i)	Height ht[i]	Current lmax	Is ht[i] > lmax?	Count	New lmax	0	7	7	- (first building)	1	7	1	4	7	No	1	7	2	8	7	Yes	2	8	3	2	8	No	2	8	4	9	8	Yes	3	9	5	6	9	No	3	9
Index (i)	Height ht[i]	Current lmax	Is ht[i] > lmax?	Count	New lmax																																										
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1	4	7	No	1	7																																										
2	8	7	Yes	2	8																																										
3	2	8	No	2	8																																										
4	9	8	Yes	3	9																																										
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