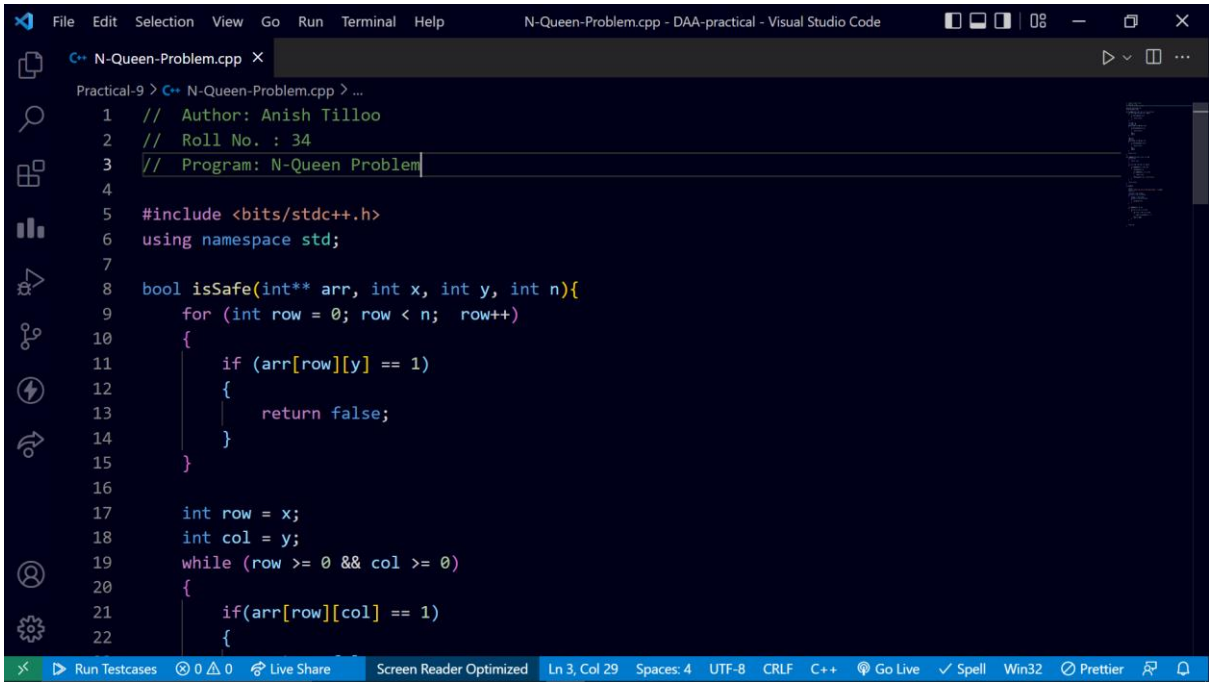
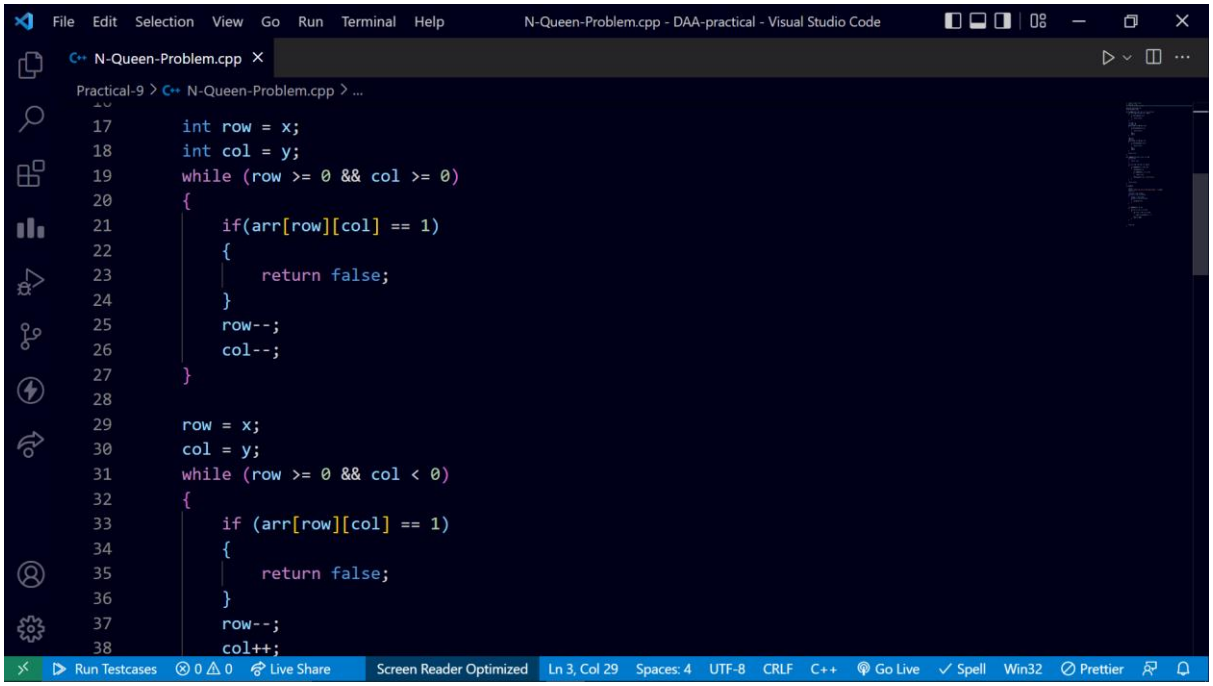
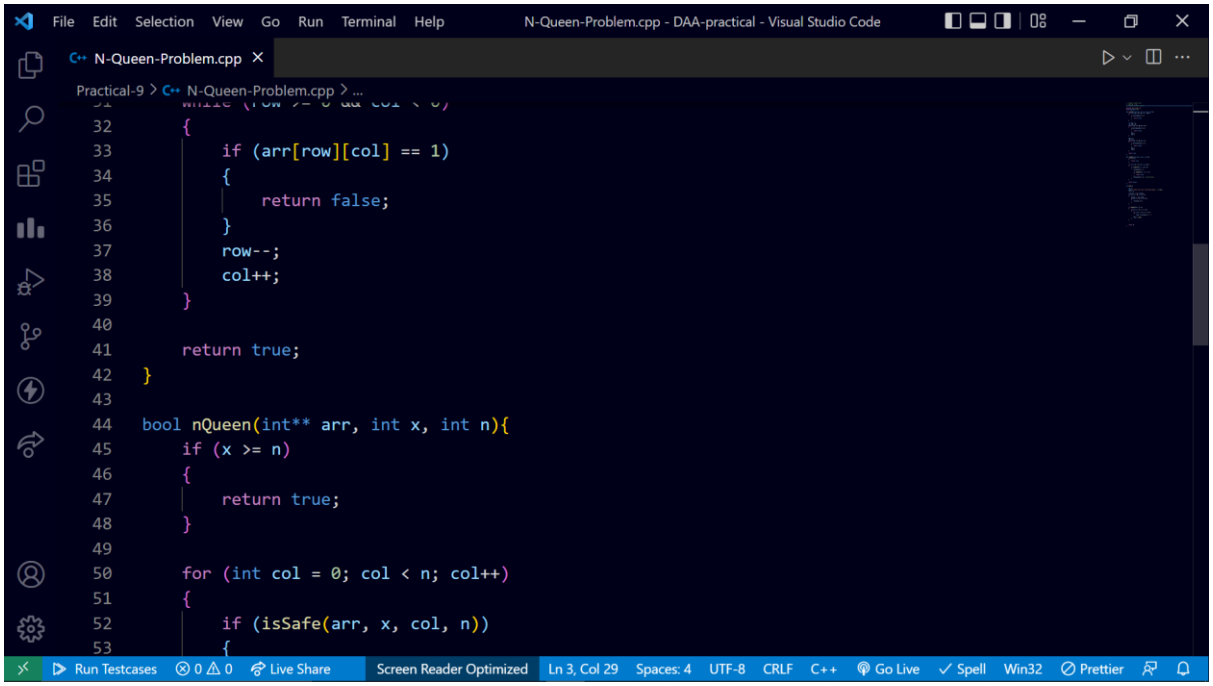
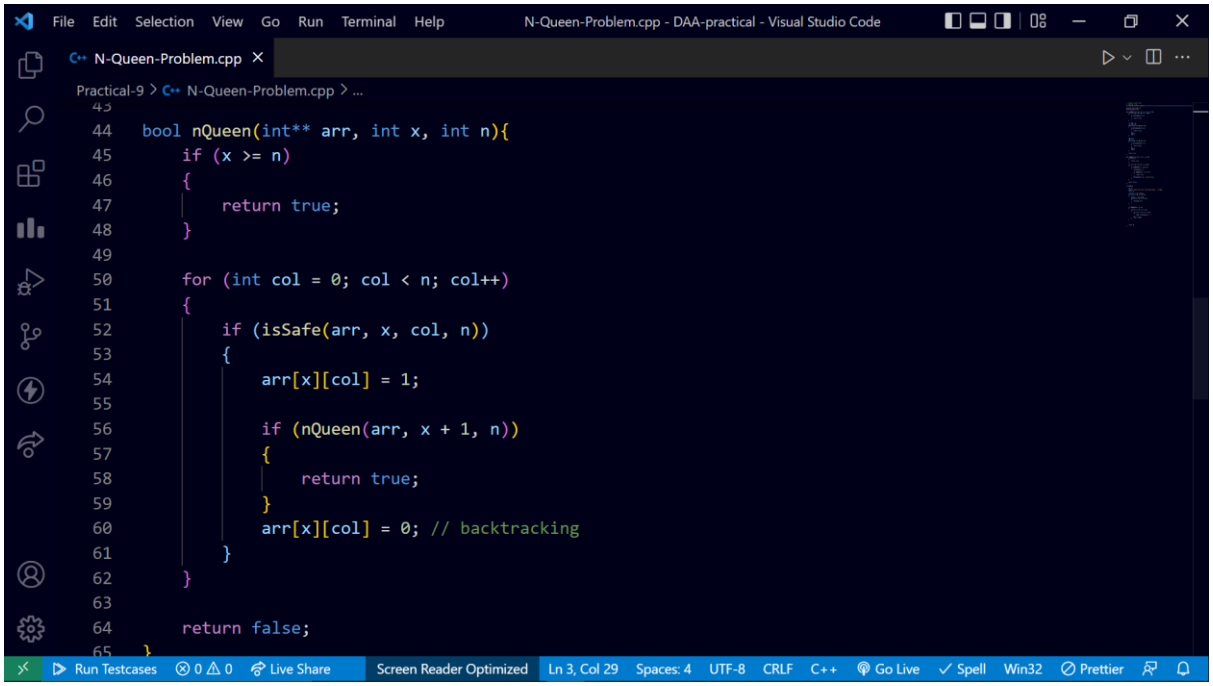
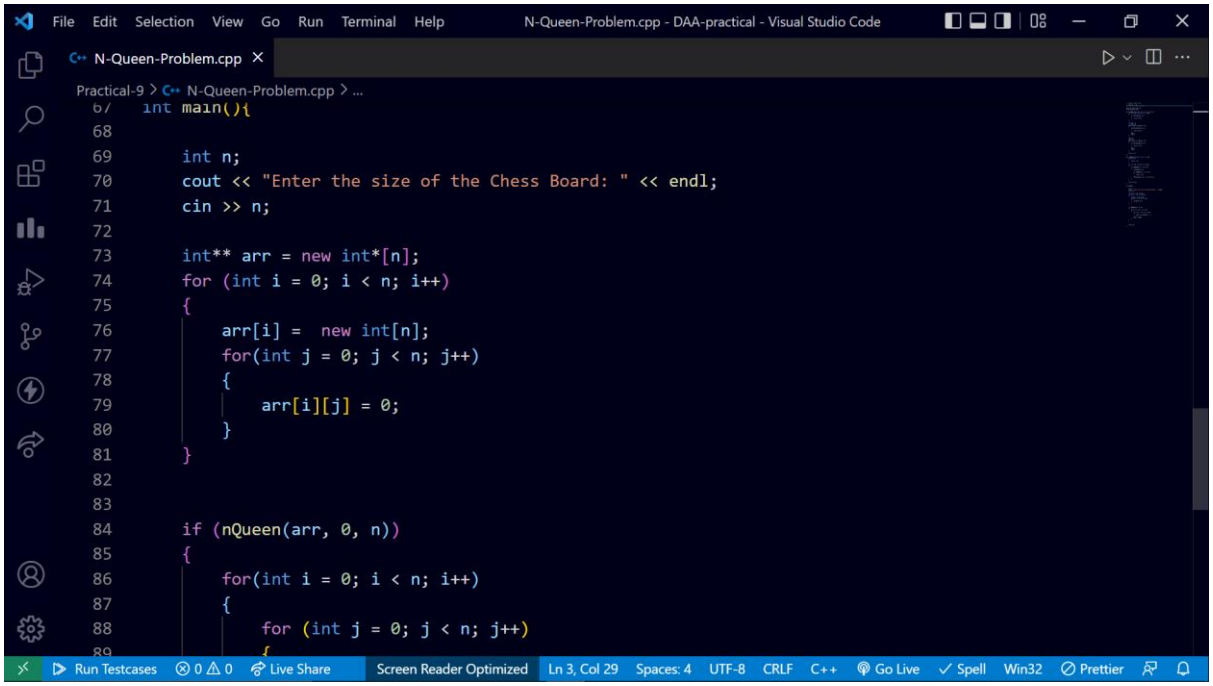
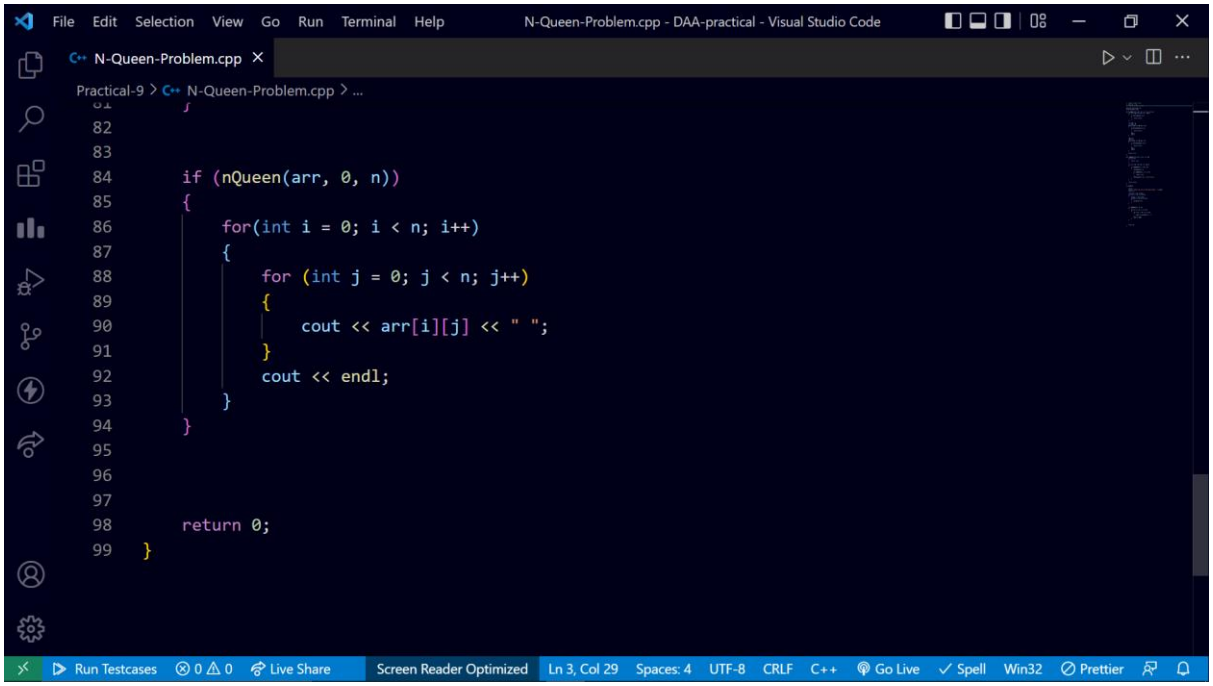

File Edit Selection View Go Run Terminal Help
N-Queen-Problem.cpp - DAA-practical - Visual Studio Code
N-Queen-Problem.cpp
Practical-9 > N-Queen-Problem.cpp > ...
1 // Author: Anish Tilloo
2 // Roll No. : 34
3 // Program: N-Queen Problem
4
5 #include <bits/stdc++.h>
6 using namespace std;
7
8 bool isSafe(int** arr, int x, int y, int n){
9 for (int row = 0; row < n; row++)
10 {
11 if (arr[row][y] == 1)
12 {
13 return false;
14 }
15 }
16
17 int row = x;
18 int col = y;
19 while (row >= 0 && col >= 0)
20 {
21 if(arr[row][col] == 1)
22 {
Run Testcases 0 0 Live Share Screen Reader Optimized Ln 3, Col 29 Spaces: 4 UTF-8 CRLF C++ Go Live Spell Win32 Prettier

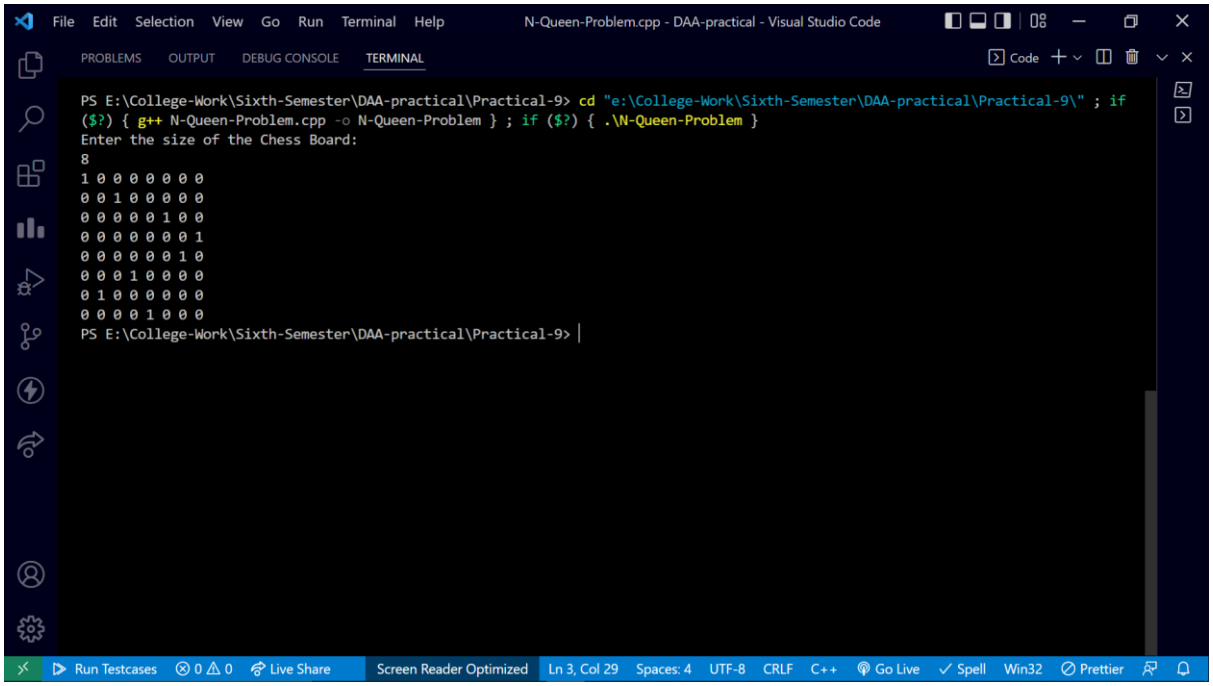

File Edit Selection View Go Run Terminal Help
N-Queen-Problem.cpp - DAA-practical - Visual Studio Code
N-Queen-Problem.cpp
Practical-9 > N-Queen-Problem.cpp > ...
17 int row = x;
18 int col = y;
19 while (row >= 0 && col >= 0)
20 {
21 if(arr[row][col] == 1)
22 {
23 return false;
24 }
25 row--;
26 col--;
27 }
28
29 row = x;
30 col = y;
31 while (row >= 0 && col < 0)
32 {
33 if (arr[row][col] == 1)
34 {
35 return false;
36 }
37 row--;
38 col++;
Run Testcases 0 0 Live Share Screen Reader Optimized Ln 3, Col 29 Spaces: 4 UTF-8 CRLF C++ Go Live Spell Win32 Prettier


File Edit Selection View Go Run Terminal Help
N-Queen-Problem.cpp - DAA-practical - Visual Studio Code
N-Queen-Problem.cpp
Practical-9 > N-Queen-Problem.cpp > ...
{
if (arr[row][col] == 1)
{
return false;
}
row--;
col++;
}
return true;
}
bool nQueen(int** arr, int x, int n){
if (x >= n)
{
return true;
}
for (int col = 0; col < n; col++)
{
if (isSafe(arr, x, col, n))
Run Testcases 0 0 Live Share Screen Reader Optimized Ln 3, Col 29 Spaces: 4 UTF-8 CRLF C++ Go Live Spell Win32 Prettier


File Edit Selection View Go Run Terminal Help
N-Queen-Problem.cpp - DAA-practical - Visual Studio Code
N-Queen-Problem.cpp
Practical-9 > N-Queen-Problem.cpp > ...
bool nQueen(int** arr, int x, int n){
if (x >= n)
{
return true;
}
for (int col = 0; col < n; col++)
{
if (isSafe(arr, x, col, n))
{
arr[x][col] = 1;
if (nQueen(arr, x + 1, n))
{
return true;
}
arr[x][col] = 0; // backtracking
}
}
return false;
Run Testcases 0 0 Live Share Screen Reader Optimized Ln 3, Col 29 Spaces: 4 UTF-8 CRLF C++ Go Live Spell Win32 Prettier


File Edit Selection View Go Run Terminal Help
N-Queen-Problem.cpp - DAA-practical - Visual Studio Code
N-Queen-Problem.cpp
Practical-9 > N-Queen-Problem.cpp > ...
int main(){
int n;
cout << "Enter the size of the Chess Board: " << endl;
cin >> n;
int** arr = new int*[n];
for (int i = 0; i < n; i++)
{
arr[i] = new int[n];
for(int j = 0; j < n; j++)
{
arr[i][j] = 0;
}
}
if (nQueen(arr, 0, n))
{
for(int i = 0; i < n; i++)
{
for (int j = 0; j < n; j++)
Run Testcases 0 0 Live Share Screen Reader Optimized Ln 3, Col 29 Spaces: 4 UTF-8 CRLF C++ Go Live Spell Win32 Prettier


File Edit Selection View Go Run Terminal Help
N-Queen-Problem.cpp - DAA-practical - Visual Studio Code
N-Queen-Problem.cpp
Practical-9 > N-Queen-Problem.cpp > ...
}
if (nQueen(arr, 0, n))
{
for(int i = 0; i < n; i++)
{
for (int j = 0; j < n; j++)
{
cout << arr[i][j] << " ";
}
cout << endl;
}
}
return 0;
}
Run Testcases 0 0 Live Share Screen Reader Optimized Ln 3, Col 29 Spaces: 4 UTF-8 CRLF C++ Go Live Spell Win32 Prettier


File Edit Selection View Go Run Terminal Help
N-Queen-Problem.cpp - DAA-practical - Visual Studio Code
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Code
PS E:\College-Work\Sixth-Semester\DAA-practical\Practical-9> cd "e:\College-Work\Sixth-Semester\DAA-practical\Practical-9\" ; if ($?) { g++ N-Queen-Problem.cpp -o N-Queen-Problem } ; if ($?) { .\N-Queen-Problem }
Enter the size of the Chess Board:
8
1 0 0 0 0 0 0 0
0 0 1 0 0 0 0 0
0 0 0 0 0 1 0 0
0 0 0 0 0 0 0 1
0 0 0 0 0 0 1 0
0 0 0 1 0 0 0 0
0 1 0 0 0 0 0 0
0 0 0 0 1 0 0 0
PS E:\College-Work\Sixth-Semester\DAA-practical\Practical-9>
Run Testcases
0 0
Live Share
Screen Reader Optimized
Ln 3, Col 29
Spaces: 4
UTF-8
CRLF
C++
Go Live
Spell
Win32
Prettier