



Logistics Management System

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Github Repository URL:	https://github.com/Gihansa16/Logistics-Management-System.git
Module Name:	Introduction to Computer Programming
Module code:	CSC 101 2.0
Semester:	01
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Introduction

The Logistics Management System is a C language-based program developed as part of the CSC 1012 – Introduction to Computer Programming module. The main objective of this project is to design and implement a menu-driven system that simulates the core operations of a logistics company. It enables users to manage cities, calculate delivery costs, estimate travel times, and track completed deliveries through an efficient and user-friendly interface.

In modern logistics operations, managing multiple routes, delivery vehicles, and customer requests requires accurate and systematic computation. This program demonstrates how basic programming concepts—such as arrays, functions, loops, conditionals, and file handling—can be integrated to build a practical solution for such real-world scenarios.

The system allows the user to store and manage up to 30 cities, define intercity distances, and handle various types of vehicles (van, truck, and lorry) with different capacities and rates. It supports delivery request handling, cost and time estimation, and even the generation of performance reports. Additionally, the program incorporates algorithms to determine the least-cost delivery route, improving operational efficiency.

By implementing this project, the knowledge of modular programming, data organization, and problem-solving in C is applied to a meaningful context. The Logistics Management System not only fulfills the academic requirements of the assignment but also illustrates how computational logic can optimize logistics planning in the real world.

Objectives

- The main objective of this project is to design and implement a menu-driven Logistics Management System using the C programming language.
- The system is developed to simulate the basic operations of a logistics company, such as managing cities, defining intercity distances, and handling delivery requests.
- It allows users to calculate delivery costs, fuel consumption, and estimated travel time efficiently.
- The project applies fundamental programming concepts such as arrays, functions, loops, conditionals, and file handling to create a modular and efficient program.
- Ultimately, the goal is to use structured programming techniques to provide a practical solution for real-world logistics management problems.

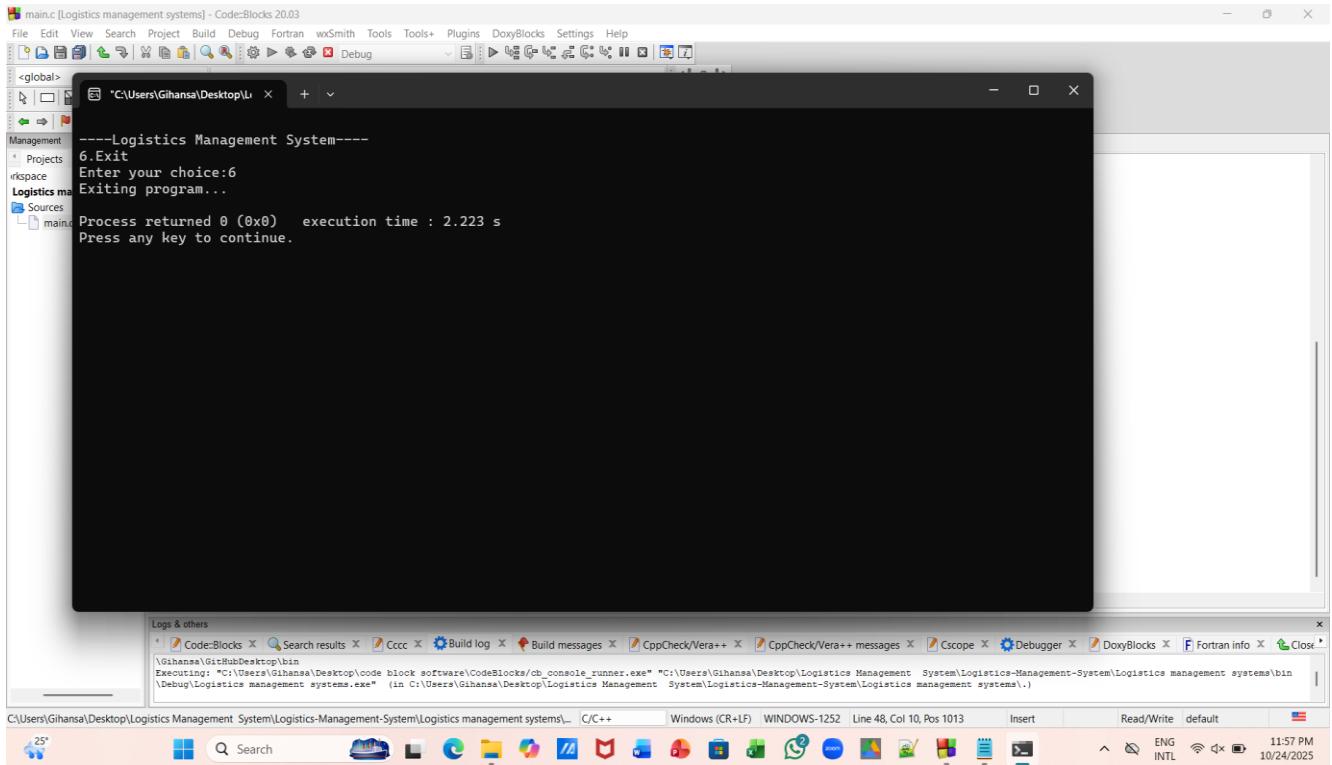
System Functionalities

The system provides the following five features:

1. Manage Cities
 - Add City- Add a new city to the system.
 - Rename City-Change the name of an existing city
 - Remove City- Delete a city from the system
 - Show Cities- Display the list of all cities
2. Manage Distances
 - Input/Edit Distance- Enter or modify the distance between cities
 - Display Distance Table- Show a table of all city distances
3. Show Vehicles- Display the details of all available vehicles
4. Delivery Cost Estimation- Calculate the delivery cost between cities
5. Reports- Generate reports for deliveries, costs, and other data

Results

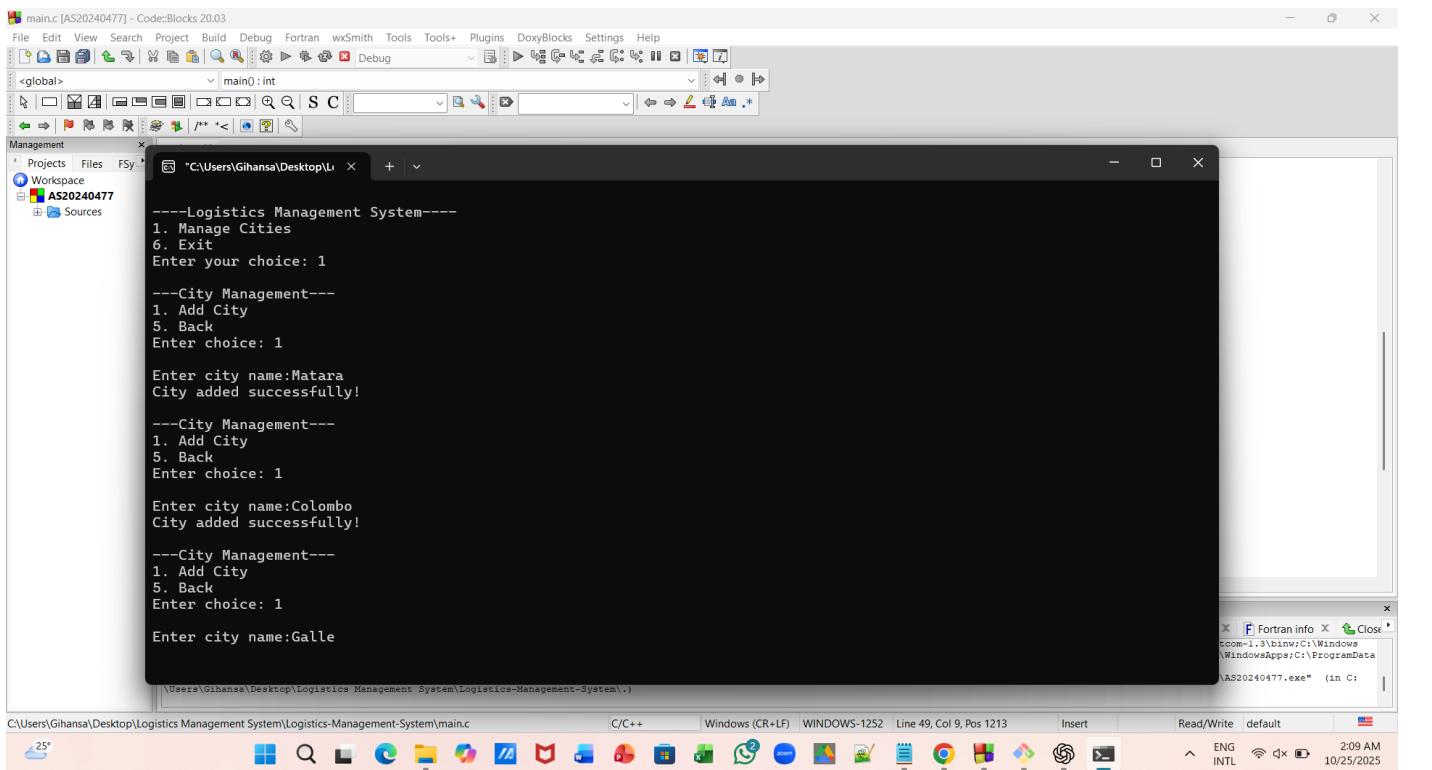
1. Output



```
main.c [Logistics management systems] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
<global> * C:\Users\Gihansa\Desktop\lru + -
Management
  Projects
  Workspace
  Logics ma
  Sources main.c
-----Logistics Management System-----
6. Exit
Enter your choice:6
Exiting program...
Process returned 0 (0x0)  execution time : 2.223 s
Press any key to continue.

Logs & others
Code::Blocks x Search results x Cccc x Build log x Build messages x CppCheck/Vera++ x CppCheck/Vera++ messages x Cscope x Debugger x DoxyBlocks x Fortran info x Close
\Gihansa\GitHubDesktop\bin
Executing: "C:\Users\Gihansa\Desktop\code block software\CodeBlocks\cb_console_runner.exe" "C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\bin\Debug\Logistics management systems.exe" (in C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\Logistics management systems.)
C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\Logistics management systems\_ C/C++ Windows (CR+LF) WINDOWS-1252 Line 48, Col 10, Pos 1013 Insert Read/Write default
25° Search
11:57 PM ENG INTL 10/24/2025
```

2. Adding the add city function



```
main.c [AS20240477] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
<global> * C:\Users\Gihansa\Desktop\lru + -
Management
  Projects
  Files
  FSy
  AS20240477
  Sources main.c
-----Logistics Management System-----
1. Manage Cities
6. Exit
Enter your choice: 1
---City Management---
1. Add City
5. Back
Enter choice: 1
Enter city name:Matara
City added successfully!
---City Management---
1. Add City
5. Back
Enter choice: 1
Enter city name:Colombo
City added successfully!
---City Management---
1. Add City
5. Back
Enter choice: 1
Enter city name:Galle
Process returned 0 (0x0)  execution time : 2.223 s
Press any key to continue.

Logs & others
Fortran info x Close
tcom-1.3\bin\w;C:\Windows\WindowsApps\MicrosoftData\AS20240477.exe" (in C:
C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 49, Col 9, Pos 1213 Insert Read/Write default
25° Search
ENG INTL 2:09 AM 10/25/2025
```

3. Adding the rename city function

The screenshot shows the Code::Blocks IDE interface. The main window displays a terminal-like output for a C program named 'main.c'. The program's logic is as follows:

```
----Logistics Management System-----
1.Manage Cities
6.Exit
Enter your choice:1

---City Management---
1.Add City
2. Rename City
5.Back
Enter choice:1

Enter city name:matara
City added successfully!

---City Management---
1.Add City
2. Rename City
5.Back
Enter choice:2
Enter city number to rename: 1
Enter new name: Mahanuwara
City renamed successfully!

---City Management---
1.Add City
2. Rename City
5.Back
Enter choice:5

----Logistics Management System-----
```

The terminal output shows the successful addition of 'matara' and its subsequent renaming to 'Mahanuwara'.

4. Adding the remove city function

The screenshot shows the Code::Blocks IDE interface. The main window displays a terminal-like output for a C program named 'main.c'. The program's logic is as follows:

```
----Logistics Management System-----
1.Manage Cities
6.Exit
Enter your choice:1

---City Management---
1.Add City
2.Rename City
3.Remove City
5.Back
Enter choice:1

Enter city name: Matara
City added successfully!

---City Management---
1.Add City
2.Rename City
3.Remove City
5.Back
Enter choice:3

-----City List-----
1. Matara
-----
Enter city number to remove: 1
Removed successfully!

---City Management---
1.Add City
-----
```

The terminal output shows the successful removal of the city 'Matara'.

5. Adding the display city function

main.c [AS20240477] - Code::Blocks 20.03

```
--Logistics Management System---
1.Manage Cities
6.Exit
Enter your choice:1

---City Management---
1.Add City
2.Rename City
3.Remove City
4.Show Cities
5.Back
Enter choice:1

Enter city name: Matara
City added successfully!

---City Management---
1.Add City
2.Rename City
3.Remove City
4.Show Cities
5.Back
Enter choice:1

Enter city name: Galle
City added successfully!

---City Management---
1.Add City
```

C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 117, Col 6, Pos 3221 Insert Read/Write default 2:24 PM 10/25/2025

main.c [AS20240477] - Code::Blocks 20.03

```
3.Remove City
4.Show Cities
5.Back
Enter choice:1

Enter city name: Galle
City added successfully!

---City Management---
1.Add City
2.Rename City
3.Remove City
4.Show Cities
5.Back
Enter choice:4

-----City List-----
1. Matara
2. Galle
-----

---City Management---
1.Add City
2.Rename City
3.Remove City
4.Show Cities
5.Back
Enter choice:5

---Logistics Management System---
```

C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 117, Col 6, Pos 3221 Insert Read/Write default 2:25 PM 10/25/2025

6. Adding the input distance function

The screenshot shows the Code::Blocks IDE interface. The main window displays the code for `main.c`, which includes a menu bar, toolbars, and a status bar at the bottom. A terminal window is open, showing the execution of the program. The program's output is as follows:

```
----Logistics Management System----  
1. Manage Cities  
2. Manage Distances  
6. Exit  
Enter your choice:1  
---City Management---  
1. Add City  
2. Rename City  
3. Remove City  
4. Show Cities  
5. Back  
Enter choice:1  
Enter city name: Galle  
City added successfully!  
---City Management---  
1. Add City  
2. Rename City  
3. Remove City  
4. Show Cities  
5. Back  
Enter choice:1  
Enter city name: Badulla  
City added successfully!  
---City Management---
```

The status bar at the bottom of the terminal window shows the path `C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c`, the language `C/C++`, the encoding `Windows (CR+LF)`, the code page `WINDOWS-1252`, the current line `Line 18, Col 5, Pos 579`, and the insert mode `Insert`. The taskbar at the bottom of the screen also displays various application icons.

This screenshot shows the same Code::Blocks environment as the previous one, but the terminal window now displays a different set of interactions. The program's output is as follows:

```
----City Management---  
1. Add City  
2. Rename City  
3. Remove City  
4. Show Cities  
5. Back  
Enter choice:5  
----Logistics Management System----  
1. Manage Cities  
2. Manage Distances  
6. Exit  
Enter your choice:2  
---Distance Management---  
1. Input/Edit Distance  
3. Back  
Enter choice: 1  
-----City List-----  
1. Galle  
2. Badulla  
-----  
Enter city number:1  
Enter destination city number:2  
Enter distance between Galle and Badulla (km):120  
Distance recorded.  
---Distance Management---
```

The status bar and taskbar are identical to the previous screenshot.

7. Adding the distance table function

main.c [AS20240477] - Code::Blocks 20.03

File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

<global> displayDistanceTable(int distance[1][30], int cityCount, char cityNames[1][30]) : void

Management

Projects File Workspace AS20240477 Source

----Logistics Management System----

1. Manage Cities
2. Manage Distances
6. Exit

Enter your choice:1

---City Management---

1. Add City
2. Rename City
3. Remove City
4. Show Cities
5. Back

Enter choice:1

Enter city name: Galle

City added successfully!

---City Management---

1. Add City
2. Rename City
3. Remove City
4. Show Cities
5. Back

Enter choice:1

Enter city name: Gampaha

City added successfully!

---City Management---

```
Set variable PATH=C:\Users\Gihansa\Desktop\code block software\CodeBlocks\MinGW\bin;C:\Users\Gihansa\Desktop\code block software\CodeBlocks\MinGW\bin\bin;C:\Watcom\1.3\bin\i386;C:\Watcom\1.3\bin\i386\Windows\System32;C:\Windows\System32\wbem;C:\Windows\System32\WindowsPowerShell\v1.0;C:\Windows\System32\OpenSSH;C:\Program Files\Git\cmd;C:\Users\Gihansa\AppData\Local\Microsoft\WindowsApps;C:\ProgramData\Gihansa\GitHubDesktop\bin
Executing: "C:\Users\Gihansa\Desktop\code block software\CodeBlocks\cb_console_runner.exe" "C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\bin\Debug\AS20240477.exe" (in C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\.)
```

C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 218, Col 6, Pos 6392 Insert Read/Write default 4:39 PM 10/25/2025

main.c [AS20240477] - Code::Blocks 20.03

File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

<global> displayDistanceTable(int distance[1][30], int cityCount, char cityNames[1][30]) : void

Management

Projects File Workspace AS20240477 Source

City added successfully!

---City Management---

1. Add City
2. Rename City
3. Remove City
4. Show Cities
5. Back

Enter choice:5

----Logistics Management System----

1. Manage Cities
2. Manage Distances
6. Exit

Enter your choice:2

---Distance Management---

1. Input/Edit Distance
2. Display Distance Table
3. Back

Enter choice: 1

-----City List-----

1. Galle
2. Gampaha

Enter city number:1

Enter destination city number:2

Enter distance between Galle and Gampaha (km):160

Distance recorded.

```
Set variable PATH=C:\Users\Gihansa\Desktop\code block software\CodeBlocks\MinGW\bin;C:\Users\Gihansa\Desktop\code block software\CodeBlocks\MinGW\bin\bin;C:\Watcom\1.3\bin\i386;C:\Watcom\1.3\bin\i386\Windows\System32;C:\Windows\System32\wbem;C:\Windows\System32\WindowsPowerShell\v1.0;C:\Windows\System32\OpenSSH;C:\Program Files\Git\cmd;C:\Users\Gihansa\AppData\Local\Microsoft\WindowsApps;C:\ProgramData\Gihansa\GitHubDesktop\bin
Executing: "C:\Users\Gihansa\Desktop\code block software\CodeBlocks\cb_console_runner.exe" "C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\bin\Debug\AS20240477.exe" (in C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\.)
```

C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 218, Col 6, Pos 6392 Insert Read/Write default 4:39 PM 10/25/2025

```
main.c [AS20240477] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Management
Projects File
Workspace AS202404
Source
<global> displayDistanceTable(int distance[1][30], int cityCount, char cityNames[1][30]) : void
Management
3.Back
Enter choice: 1
-----City List-----
1. Galle
2. Gampaha
-----
Enter city number:1
Enter destination city number:2
Enter distance between Galle and Gampaha (km):160
Distance recorded.

---Distance Management---
1.Input/Edit Distance
2.Display Distance Table
3.Back
Enter choice: 2
-----Distance Table (km)-----
Galle
Gampaha
Galle0      160
Gampaha160   0
-----
---Distance Management---
1.Input/Edit Distance
2.Display Distance Table
3.Back
Enter choice:
```

Set Variable: PATH=.;C:\Users\Gihansa\Desktop\code block software\CodeBlocks\MinGW\bin;C:\Users\Gihansa\Desktop\code block software\CodeBlocks\MinGW\bin\bin;C:\watcom-1.3\binnt;C:\watcom-1.3\bin\bin;C:\Windows\Windows\System32\WindowsPowerShell\v1.0\;C:\Windows\System32\OpenSSH;C:\Program Files\Git\cmd;C:\Users\Gihansa\AppData\Local\Microsoft\WindowsApps;C:\ProgramData\Gihansa\GitHubDesktop\bin
Executing: "C:\Users\Gihansa\Desktop\code block software\CodeBlocks\cb_console_runner.exe" "C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\bin\Debug\AS20240477.exe" (in C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\.)

8. Adding the show vehicle function

```
main.c [AS20240477] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins Doxygen Settings Help
Management <global> + X
Projects Files
AS20240477 Sources
Management "C:\Users\Gihansa\Desktop\Ur" x + v
----Logistics Management System----
1. Manage Cities
2. Manage Distances
3. Show Vehicles
6. Exit
Enter your choice:3

---Vehicles---
ID Type Cap(kg) Rate/km Speed FuelEff(km/l)
1 Van 1000 30.00 60.00 12.00
2 Truck 5000 40.00 50.00 6.00
3 Lorry 10000 80.00 45.00 4.00

----Logistics Management System----
1. Manage Cities
2. Manage Distances
3. Show Vehicles
6. Exit
Enter your choice:6
Exiting program...

Process returned 0 (0x0) execution time : 23.351 s
Press any key to continue.
|
```

9. Adding the delivery cost estimation function

The screenshot shows the Code::Blocks IDE interface with a terminal window displaying the execution of a C program. The terminal output shows the main menu of the Logistics Management System, followed by the City Management submenu, and the successful addition of two cities ('Nuwara' and 'Gampaha'). The system then returns to the main menu.

```
main.c [AS20240477] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Management Projects Workspaces AS20 Sc...
<global> *C:\Users\Gihansa\Desktop\Lo... + ...
----Logistics Management System----
1.Manage Cities
2.Manage Distances
3.Show Vehicles
4.Delivery Cost Estimation
6.Exit
Enter your choice:1

----City Management---
1.Add City
2.Rename City
3.Remove City
4.Show Cities
5.Back
Enter choice:1

Enter city name: Nuwara
City added successfully!

----City Management---
1.Add City
2.Rename City
3.Remove City
4.Show Cities
5.Back
Enter choice:1

Enter city name: Gampaha
City added successfully!
C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 349, Col 88, Pos 11073 Insert Read/Write default 7:11 PM 10/25/2025
```

The screenshot shows the Code::Blocks IDE interface with a terminal window displaying the execution of a C program. The terminal output shows the main menu of the Logistics Management System, followed by the City Management submenu, and the successful addition of two cities ('Nuwara' and 'Gampaha'). The system then returns to the main menu.

```
main.c [AS20240477] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Management Projects Workspaces AS20 Sc...
<global> *C:\Users\Gihansa\Desktop\Lo... + ...
Enter city name: Gampaha
City added successfully!

---City Management---
1.Add City
2.Rename City
3.Remove City
4.Show Cities
5.Back
Enter choice:5

----Logistics Management System----
1.Manage Cities
2.Manage Distances
3.Show Vehicles
4.Delivery Cost Estimation
6.Exit
Enter your choice:2

---Distance Management---
1.Input/Edit Distance
2.Display Distance Table
3.Back
Enter choice: 1

-----City List-----
1. Nuwara
2. Gampaha
C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 349, Col 88, Pos 11073 Insert Read/Write default 7:12 PM 10/25/2025
```

```

main.c [AS20240477] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

  * "C:\Users\Gihansa\Desktop\U\ "
  + -
-----City List-----
1. Nuwara
2. Gampaha
-----
Management AS20240477 Projects Workspace
----- Enter city number:1
Enter destination city number:2
Enter distance between Nuwara and Gampaha (km):120
Distance recorded.

---Distance Management---
1.Input/Edit Distance
2.Display Distance Table
3.Back
Enter choice: 3

---Logistics Management System---
1.Manage Cities
2.Manage Distances
3.Show Vehicles
4.Delivery Cost Estimation
6.Exit
Enter your choice:4

-----City List-----
1. Nuwara
2. Gampaha
-----
Enter source city number: 1
Enter destination city number: 2

```

Set variable: PATH=.;C:\Users\Gihansa\Desktop\code block software\CodeBlocks\MinGW\bin;C:\Users\Gihansa\Desktop\code block software\CodeBlocks\MinGW\bin\bin;C:\Watcom-1.3\bin\win;C:\Windows\System32;C:\Windows\;C:\Windows\System32\wbem;C:\Windows\System32\WindowsPowerShell\v1.0;C:\Windows\System32\OpenSSH;C:\Program Files\Git\cmd;C:\Users\Gihansa\AppData\Local\Microsoft\WindowsApps;C:\ProgramData\Gihansa\GitHubDesktop\bin
Executing: "C:\Users\Gihansa\Desktop\code block software\CodeBlocks\cb_console_runner.exe" "C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\bin\Debug\AS20240477.exe" (in C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\.)

C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 349, Col 88, Pos 11073 Insert Read/Write default 7:12 PM 10/25/2023

```

main.c [AS20240477] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

  * "C:\Users\Gihansa\Desktop\U\ "
  + -
----- Enter destination city number: 2
Management AS20240477 Projects Workspace
----- Vehicles
ID Type Cap(kg) Rate/km Speed FuelEff(km/l)
1 Van 1000 30.00 60.00 12.00
2 Truck 5000 40.00 50.00 6.00
3 Lorry 10000 80.00 45.00 4.00
-----
Select vehicle type: 2
Enter cargo weight (kg): 40

=====
DELIVERY COST ESTIMATION
=====

From: Nuwara
To: Gampaha
Distance: 120.00 km
Vehicle: Truck
Weight: 40.00 kg

Base Cost: 4819.20 LKR
Fuel Used: 28.00 L
Fuel Cost: 6200.00 LKR
Operational Cost: 11019.20 LKR
Profit: 1204.80 LKR
Customer Charge: 12224.00 LKR
Estimated Time: 2.40 hours
=====

---Logistics Management System---

```

Set variable: PATH=.;C:\Users\Gihansa\Desktop\code block software\CodeBlocks\MinGW\bin;C:\Users\Gihansa\Desktop\code block software\CodeBlocks\MinGW\bin\bin;C:\Watcom-1.3\bin\win;C:\Windows\System32;C:\Windows\;C:\Windows\System32\wbem;C:\Windows\System32\WindowsPowerShell\v1.0;C:\Windows\System32\OpenSSH;C:\Program Files\Git\cmd;C:\Users\Gihansa\AppData\Local\Microsoft\WindowsApps;C:\ProgramData\Gihansa\GitHubDesktop\bin
Executing: "C:\Users\Gihansa\Desktop\code block software\CodeBlocks\cb_console_runner.exe" "C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\bin\Debug\AS20240477.exe" (in C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\.)

C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 349, Col 88, Pos 11073 Insert Read/Write default 7:12 PM 10/25/2023

10. Adding the show report function

The screenshot shows the Code::Blocks 20.03 IDE interface. The main window displays the following text:

```
DELIVERY COST ESTIMATION
-----
From: Gampaha
To: Kandy
Distance: 180.00 km
Vehicle: Truck
Weight: 150.00 kg
-----
Base Cost: 7308.00 LKR
Fuel Used: 30.00 L
Fuel Cost: 9300.00 LKR
Operational Cost: 16608.00 LKR
Profit: 1827.00 LKR
Customer Charge: 18435.00 LKR
Estimated Time: 3.60 hours
=====

----Logistics Management System----
1.Manage Cities
2.Manage Distances
3.Show Vehicles
4.Delivery Cost Estimation
5.Reports
6.Exit
Enter your choice:5

-----PERFORMANCE REPORT-----
Total Deliveries Completed: 1
Total Distance Covered: 150.00 km
```

The status bar at the bottom shows the file path: C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c, the editor mode: C/C++, and the build configuration: WINDOWS-1252. The system tray icons indicate network, battery, and connectivity status.

The screenshot shows the Code::Blocks 20.03 IDE interface. The main window displays the following text:

```
3.Show Vehicles
4.Delivery Cost Estimation
5.Reports
6.Exit
Enter your choice:5

-----PERFORMANCE REPORT-----
Total Deliveries Completed: 1
Total Distance Covered: 150.00 km
Average Delivery Time: 3.60 hours
Total Revenue: 18435.00 LKR
Total Profit: 1827.00 LKR

Longest Route: 150.00 km (Gampaha -> Kandy)
Shortest Route: 150.00 km (Gampaha -> Kandy)
=====

----Logistics Management System----
1.Manage Cities
2.Manage Distances
3.Show Vehicles
4.Delivery Cost Estimation
5.Reports
6.Exit
Enter your choice:6
Exiting program...

Process returned 0 (0x0)   execution time : 230.597 s
Press any key to continue.
```

The status bar at the bottom shows the file path: C:\Users\Gihansa\Desktop\Logistics Management System\Logistics-Management-System\main.c, the editor mode: C/C++, and the build configuration: WINDOWS-1252. The system tray icons indicate network, battery, and connectivity status.

Conclusion

The Logistics Management System developed in C language successfully simulates the core operations of managing cities, distances, vehicles, and delivery costs. This system allows users to easily add, rename, and remove cities, manage distances between them, view available vehicles, estimate delivery costs, and generate useful reports.

The project demonstrates fundamental programming concepts such as menu-driven interfaces, data storage using arrays and structures, and basic input/output operations. It also highlights the importance of systematic logistics management for effective transportation planning.

Overall, this system provides a practical, easy-to-use tool that can help users understand and manage logistics operations efficiently.

References

- **Lecture Materials**
- <https://www.altexsoft.com/blog/logistics-management-systems-how-warehouse-transportation-and-distribution-software-work/> Accessed date 20th October 2025