

Lab 4

Mahmood Mohammadi

Assignment1

```
[Running] cd "c:\Users\Käyttaja\Git\MicroController\Lab4\" && g++ Assignment1.cpp -o Assignment1 && "c:\Users\Käyttaja\Git\MicroController\Lab4\Assignment1
c1 = 4 + 5i
c2 = 2 - 3i
Sum = 6 + 2i
Difference = 2 + 8i
Quotient = -0.538462 + 1.69231i

[Done] exited with code=0 in 0.942 seconds
```

Assignment2

```
[Running] cd "c:\Users\Käyttaja\Git\MicroController\Lab4\" && g++ assignment2.cpp -o assignment2 && "c:\Users\Käyttaja\Git\MicroController\Lab4\assignment2
Book Constructor: "C++ Fundamentals" with 300 pages
Book Constructor: "DataStructures" with 450 pages
Book Constructor: "Algorithms" with 500 pages
BookShelfConstructor: Shelf initialised with 3 books

Books on shelf:
Title: C++ Fundamentals, Pages: 300
Title: DataStructures, Pages: 450
Title: Algorithms, Pages: 500
Destructor: "Algorithms" destroyed
Destructor: "DataStructures" destroyed
Destructor: "C++ Fundamentals" destroyed
BookShelf Destructor: Shelf destroyed

[Done] exited with code=0 in 1.119 seconds
```

Assignment3

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Enter model for car 1: Honda
Enter year: 2013
Enter price: 23000
Car Constructor: Honda (2013) - $23000

Enter model for car 2: Tesla
Enter year: 2024
Enter price: 45000
Car Constructor: Tesla (2024) - $45000

Enter model for car 3: Volvo
Enter year: 2025
Enter price: 66000
Car Constructor: Volvo (2025) - $66000
CarCollection initialized with 3 cars

--- Car Collection ---
Model: Honda, year: 2013, Price: $23000
Model: Tesla, year: 2024, Price: $45000
Model: Volvo, year: 2025, Price: $66000
Car Destructor: Hondadestroyed
Car Destructor: Tesladedestroyed
Car Destructor: Volvodedestroyed
CarCollection destroyed
PS C:\Users\Käyttäjä\Git\MicroController>
```

Assignment 4

```
PS C:\Users\Käyttäjä\Git\MicroController> ./Lab4/Assignment4.exe

=== Without cin.ignore() ===
Enter your age: 50
Enter your full name: Age: 50, Name:

=== With cin.ignore() ===
Enter your age: 25
Enter your full name: John Batman
Age: 25, Name: John Batman
PS C:\Users\Käyttäjä\Git\MicroController>
```

Assignment 5

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
Enter choice: 1
Enter model: Tesla
Enter year: 2023
Enter price: 45000
Enter battery size (kwh): 2000
```

```
Car 2 type:
[1] Electric
[2] Gasoline
[3] Hybrid
Enter choice: 2
Enter model: Toyota
Enter year: 2019
Enter price: 25000
Enter fuel capacity (L): 1500
```

```
Car 3 type:
[1] Electric
[2] Gasoline
[3] Hybrid
Enter choice: 3
Enter model: BMW
Enter year: 2026
Enter price: 70000
Enter battery size (kwh): 2500
Enter fuel capacity (L): 2000
```

```
--- Fleet Information ---
Model: Tesla, Year: 2023, Price: $45000, Battery: 2000 kwh
Model: Toyota, Year: 2019, Price: $25000, Fuel: 1500 L
Model: BMW, Year: 2026, Price: $70000, Battery: 2500 kwh, Fuel: 2000 L
```

```
--- Cleaning up fleet ---
Destroying Electric Car: Tesla
Destroying Gasoline Car: Toyota
Destroying Hybrid Car: BMW
PS C:\Users\Käyttaja\Git\MicroController> |
```