

D:\os programs\friend function.cpp - [Executing] - Embarcadero Dev-C++ 6.3

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TDM-GCC 9.2.0 64-bit Release

(globals)

Project Class inline function.cpp get data.cpp get product.cpp friend function.cpp

```
1 #include <iostream>
2 using namespace std;
3
4 // Forward declaration of class NumberB
5 class NumberB;
6
7 // Class NumberA
8 class NumberA {
9 private:
10     int numA;
11
12 public:
13     void getNumberA() {
14         cout << "Enter a number for class A: ";
15         cin >> numA;
16     }
17
18     friend int max(NumberA, NumberB); // Friend function declaration
19 };
20
21 // Class NumberB
22 class NumberB {
23 private:
24     int numB;
25
26 public:
27     void getNumberB() {
28         cout << "Enter a number for class B: ";
29         cin >> numB;
30     }
31 };
32
33 int main() {
34     NumberA A;
35     NumberB B;
36     A.getNumberA();
37     B.getNumberB();
38     int result = max(A, B);
39     cout << "Maximum number: " << result << endl;
40     return 0;
41 }
```

NumberA: d
NumberB: d
main(): int
max(NumberA)

D:\os programs\friend function.exe

```
Enter a number for class A: 12
Enter a number for class B: 10
Maximum number: 12

-----
Process exited after 23.57 seconds with return value 0
Press any key to continue . . .
```

Compiler Resources Compile Log Debug Find Results Console Close

Abort Compilation

Shorten compiler path

- Errors: 0
- Warnings: 0
- Output Filename: D:\os programs\friend function.exe
- Output Size: 2.98977470397949 MiB
- Compilation Time: 0.45s

Line: 52 Col: 1 Sel: 0 Lines: 52 Length: 936 Insert Done parsing in 0.016 seconds

Nifty midcap +2.04%

Search

ENG IN 09:56 06-06-2024

D:\os programs\get product.cpp - [Executing] - Embarcadero Dev-C++ 6.3

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TDM-GCC 9.2.0 64-bit Release

(globals)

Project Class

Product: class

main(): int

inline function.cpp

get data.cpp

get product.cpp

```
1 #include <iostream>
2 #include <string>
3
4 class Product {
5 private:
6     std::string name;
7     double price;
8
9 public:
10 void get_product() {
11     std::cout << "Enter product name: ";
12     std::cin >> name;
13
14     std::cout << "Enter product price: $";
15     std::cin >> price;
16 }
17
18 void print_product() const {
19     std::cout << "Product: " << name << std::endl;
20     std::cout << "Price: $" << price << std::endl;
21 }
22 };
23
24 int main() {
25     const int numProducts = 3; // Generalized array size
26     Product products[numProducts];
27
28     for (int i = 0; i < numProducts; ++i) {
29         std::cout << "Product " << i + 1 << " details:\n";
```

D:\os programs\get product.e

Product 2 details:
Enter product name: 9898
Enter product price: \$80000
Product 3 details:
Enter product name: 7878
Enter product price: \$40000

Printing product details:
Product: 6556
Price: \$5000

Product: 9898
Price: \$80000

Product: 7878
Price: \$40000

Process exited after 21.32 seconds with return value 0
Press any key to continue . . .

Compiler Resources Compile Log Debug Find Results Console Close

Abort Compilation

Shorten compiler pat

- Errors: 0

- Warnings: 0

- Output Filename: D:\os programs\get product.exe

- Output Size: 2.99668025970459 MiB

- Compilation Time: 0.72s

Line: 15 Col: 27 Sel: 0 Lines: 41 Length: 921 Insert Done parsing in 0.016 seconds

30°C Mostly cloudy

Search

ENG IN

09:51 06-06-2024

D:\os programs\get data.cpp - [Executing] - Embarcadero Dev-C++ 6.3

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TDM-GCC 9.2.0 64-bit Release

(globals)

Project Class inline function.cpp get data.cpp

Student: class
main(): int

```
1 #include <iostream>
2 #include <string>
3
4 class Student {
5 private:
6     std::string name;
7     int regNo;
8     int marks[5]; // Assuming 5 subjects
9
10 public:
11     void getdata() {
12         std::cout << "Enter student name: ";
13         std::cin >> name;
14
15         std::cout << "Enter registration number: ";
16         std::cin >> regNo;
17
18         std::cout << "Enter marks for 5 subjects:\n";
19         for (int i = 0; i < 5; ++i) {
20             std::cout << "Subject " << i + 1 << ": ";
21             std::cin >> marks[i];
22         }
23     }
24
25     void tot_marks() {
26         int total = 0;
27         for (int i = 0; i < 5; ++i) {
28             total += marks[i];
29         }
30     }
31 }
```

D:\os programs\get data.exe

```
Enter student name: Haseeb
Enter registration number: 192211497
Enter marks for 5 subjects:
Subject 1: 89
Subject 2: 87
Subject 3: 97
Subject 4: 69
Subject 5: 74
Total marks for student Haseeb (Reg. No. 192211497): 416

-----
Process exited after 42.02 seconds with return value 0
Press any key to continue . . .
```

Compiler Resources Compile Log Debug Find Results Console Close

Abort Compilation

Shorten compiler path

- Errors: 0
- Warnings: 0
- Output Filename: D:\os programs\get data.exe
- Output Size: 2.99663829803467 MiB
- Compilation Time: 0.67s

Line: 42 Col: 1 Sel: 0 Lines: 42 Length: 914 Insert Done parsing in 0.015 seconds

29°C Mostly cloudy 09:39 06-06-2024

D:\os programs\inline function.cpp - [Executing] - Embarcadero Dev-C++ 6.3

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TDM-GCC 9.2.0 64-bit Release

(globals)

Project Class inline function.cpp

```
1 #include <iostream>
2 #include <cmath> // For sqrt function
3
4 // Function to find square root (return type: void)
5 void findSquareRoot(double num) {
6     if (num >= 0) {
7         double result = std::sqrt(num);
8         std::cout << "Square root of " << num << " = " << result << endl;
9     } else {
10        std::cout << "Cannot find square root of a negative number" << endl;
11    }
12 }
13
14 // Inline function to increment a number
15 inline int increment(int x) {
16     return x + 1;
17 }
18
19 // Inline function to decrement a number
20 inline int decrement(int x) {
21     return x - 1;
22 }
23
24 int main() {
25     double inputNum;
```

decrement
findSquareRoot
increment
main(): int

D:\os programs\inline functio

```
Enter a positive number to find its square root: 45
Square root of 45 = 6.7082
Enter an integer to increment: 8
Incremented value: 9
Enter an integer to decrement: 6
Decrement value: 5

-----
Process exited after 11.81 seconds with return value 0
Press any key to continue . . .
```

Compiler Resources Compile Log Debug Find Results Console Close

Abort Compilation

Shorten compiler pat

- Errors: 0
- Warnings: 0
- Output Filename: D:\os programs\inline function.exe
- Output Size: 2.99319076538086 MiB
- Compilation Time: 0.84s

Line: 45 Col: 1 Sel: 0 Lines: 45 Length: 1252 Insert Done parsing in 0.5 seconds

BSE midcap +1.15%

Search

ENG IN 09:33 06-06-2024

D:\os programs\encapsulation.cpp - [Executing] - Embarcadero Dev-C++ 6.3

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TDM-GCC 9.2.0 64-bit Release

(globals)

Project Class inline function.cpp get data.cpp get product.cpp friend function.cpp encapsulation.cpp

Account: class
Customer: class
main(): int
transfer(Account): void

```
1 #include <iostream>
2 #include <string>
3 #include <vector>
4
5 class Customer {
6 private:
7     std::string name;
8     int customerId;
9
10 public:
11     Customer(const std::string& n, int id) : name(n), customerId(id) {}
12
13     void displayInfo() const {
14         std::cout << "Customer Name: " << name << " (ID: " << customerId << "
15     }
16
17     friend class Account; // Allow Account class to access private members
18 };
19
20 class Account {
21 private:
22     int accountId;
23     double balance;
24
25 public:
26     Account(int id) : accountId(id), balance(0.0) {}
27
28     void deposit(double amount) {
29         balance += amount;
30     }
31 }
```

D:\os programs\encapsulation

Customer Name: Alice (ID: 1001)
Account ID: 2001, Balance: \$1000
Account ID: 2002, Balance: \$500
Transfer successful!
Account ID: 2001, Balance: \$700
Account ID: 2002, Balance: \$800

Process exited after 0.00543 seconds with return value 0
Press any key to continue . . .

Compiler Resources Compile Log Debug Find Results Console Close

Abort Compilation

Shorten compiler path

```
- Errors: 0
- Warnings: 0
- Output Filename: D:\os programs\encapsulation.exe
- Output Size: 3.0008659362793 MiB
- Compilation Time: 0.53s
```

Line: 76 Col: 1 Sel: 0 Lines: 76 Length: 1773 Insert Done parsing in 0.046 seconds

BSE midcap +1.80%

Search

09:59 06-06-2024