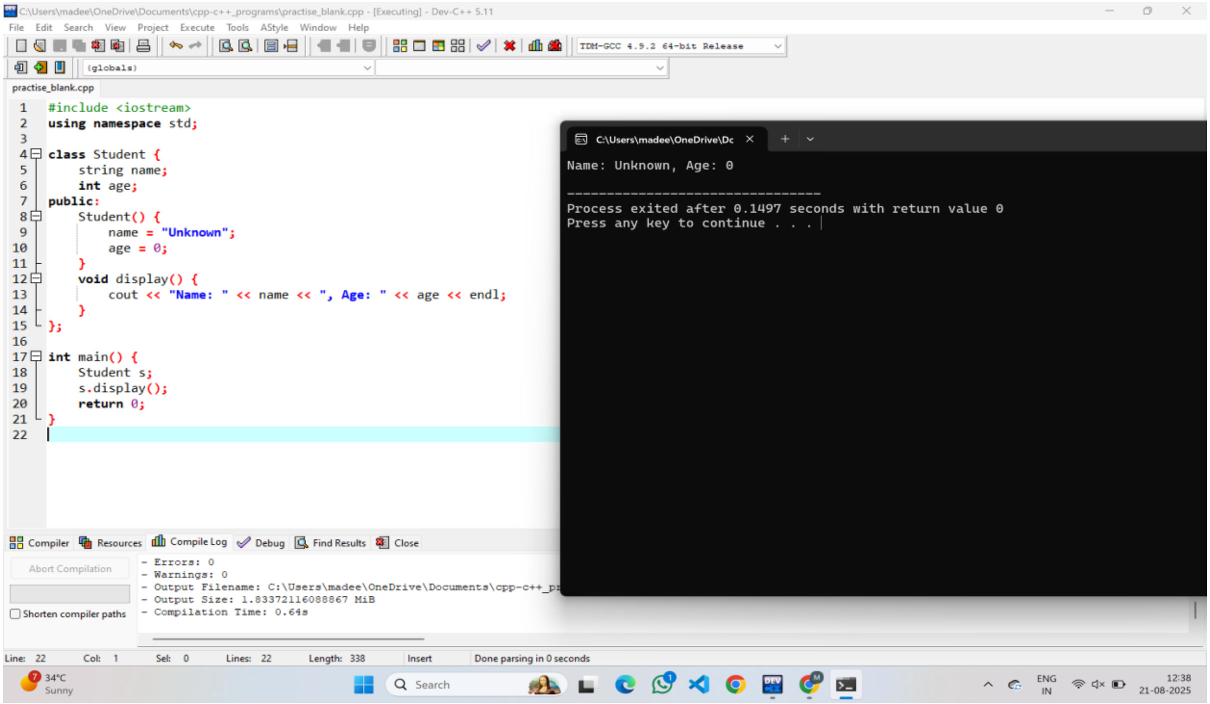
Assignment-2

Name: P Madeena

Regno: 192211011

1) Create a class Student with name and age. Use a to set name = "Unknown" and age = 0. Display the values.


C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
practise_blank.cpp
C:\Users\madee\OneDrive\Dc
Compiler
Resources
Compile Log
Debug
Find Results
Close
Abort Compilation
□ Shorten compiler paths
34°C
Sunny
Search
ENG
IN
12:38
21-08-2025

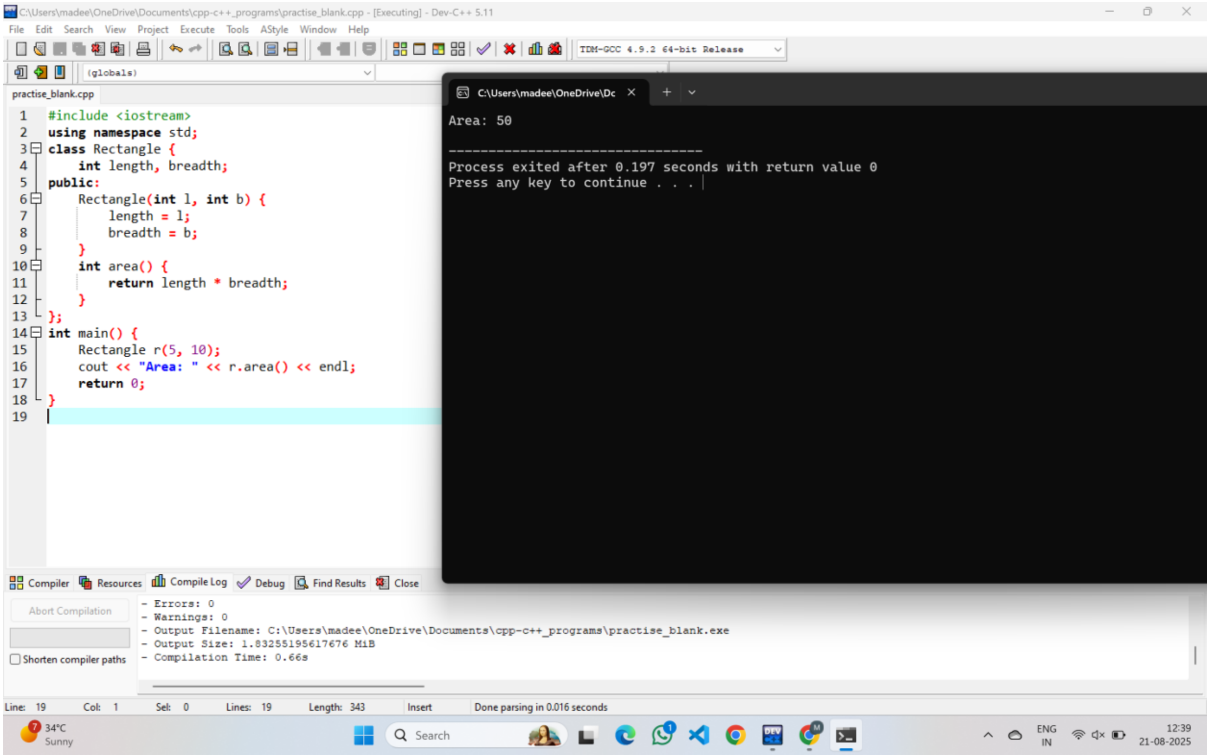
```cpp
#include <iostream>
using namespace std;

class Student {
    string name;
    int age;
public:
    Student() {
        name = "Unknown";
        age = 0;
    }
    void display() {
        cout << "Name: " << name << ", Age: " << age << endl;
    }
};

int main() {
    Student s;
    s.display();
    return 0;
}
```

```
Name: Unknown, Age: 0

--------------------------------
Process exited after 0.1497 seconds with return value 0
Press any key to continue . . .
```

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\madee\OneDrive\Documents\cpp-c++_pr
- Output Size: 1.83372116088867 MiB
- Compilation Time: 0.64s
```

Line: 22 Col: 1 Sel: 0 Lines: 22 Length: 338 Insert Done parsing in 0 seconds

2) Write a class Rectangle with length and breadth. Initialize them using a and calculate area.


C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
practise_blank.cpp
C:\Users\madee\OneDrive\Dc
Compiler
Resources
Compile Log
Debug
Find Results
Close
Abort Compilation
□ Shorten compiler paths
34°C
Sunny
Search
ENG
IN
12:39
21-08-2025

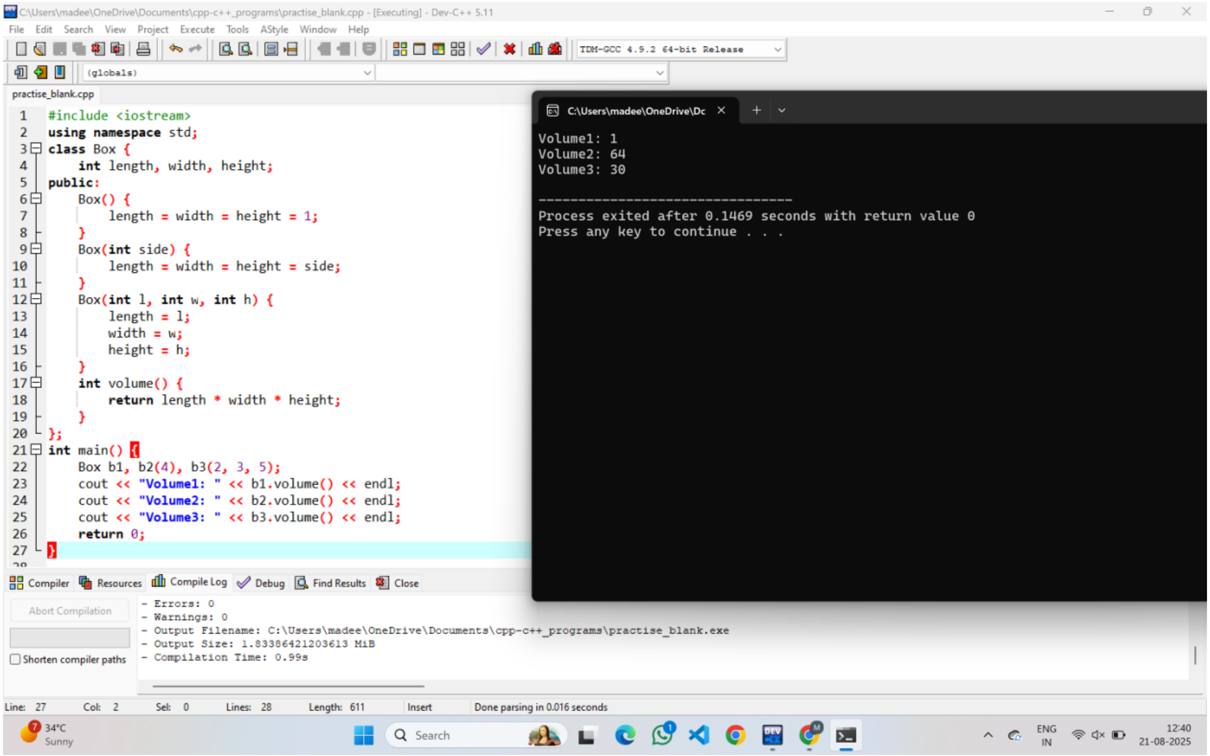
```cpp
#include <iostream>
using namespace std;
class Rectangle {
    int length, breadth;
public:
    Rectangle(int l, int b) {
        length = l;
        breadth = b;
    }
    int area() {
        return length * breadth;
    }
};
int main() {
    Rectangle r(5, 10);
    cout << "Area: " << r.area() << endl;
    return 0;
}
```

```
Area: 50

--------------------------------
Process exited after 0.197 seconds with return value 0
Press any key to continue . . .
```

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.exe
- Output Size: 1.83255195617676 MiB
- Compilation Time: 0.66s
```

Line: 19 Col: 1 Sel: 0 Lines: 19 Length: 343 Insert Done parsing in 0.016 seconds

3) Make a class Box with three constructors:
No arguments (set sides = 1)
One argument (cube)
Three arguments (length, width, height).



C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
practise_blank.cpp
C:\Users\madee\OneDrive\Dc
Compiler
Resources
Compile Log
Debug
Find Results
Close
Abort Compilation
Shorten compiler paths
34°C
Sunny
Search
ENG
IN
12:40
21-08-2025

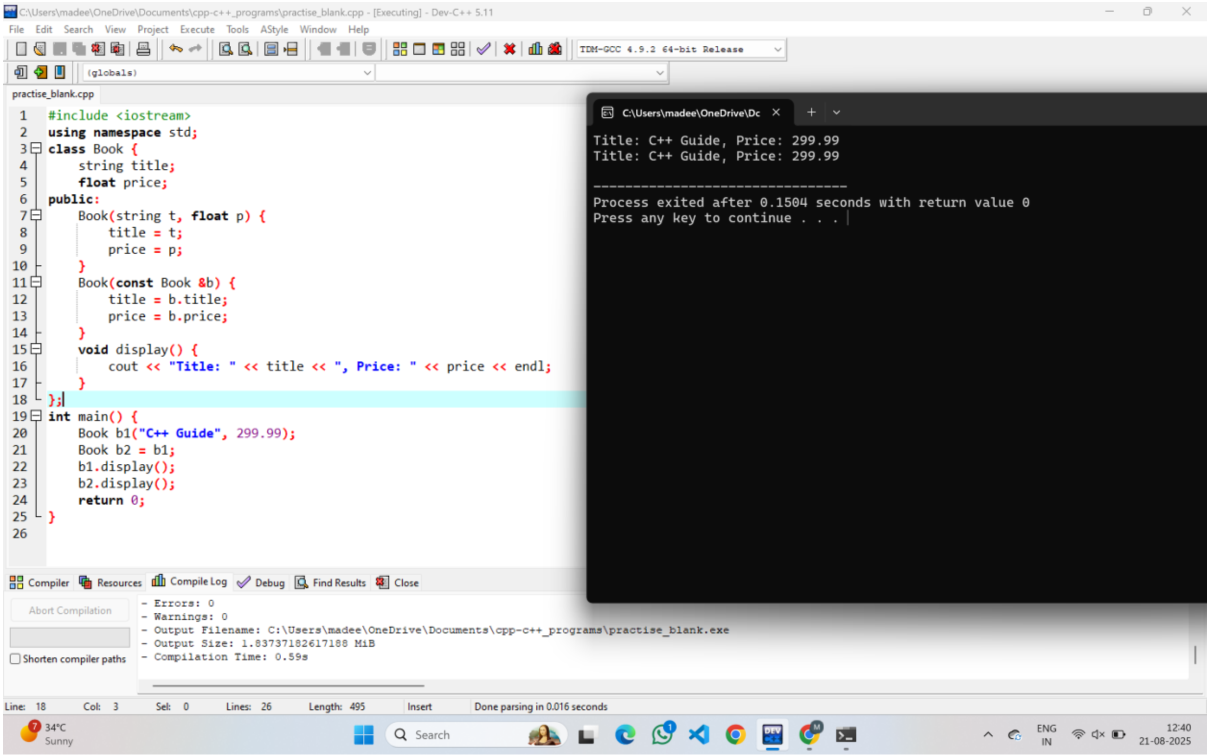
```cpp
#include <iostream>
using namespace std;
class Box {
    int length, width, height;
public:
    Box() {
        length = width = height = 1;
    }
    Box(int side) {
        length = width = height = side;
    }
    Box(int l, int w, int h) {
        length = l;
        width = w;
        height = h;
    }
    int volume() {
        return length * width * height;
    }
};
int main() {
    Box b1, b2(4), b3(2, 3, 5);
    cout << "Volume1: " << b1.volume() << endl;
    cout << "Volume2: " << b2.volume() << endl;
    cout << "Volume3: " << b3.volume() << endl;
    return 0;
}
```

```
Volume1: 1
Volume2: 64
Volume3: 30

--------------------------------
Process exited after 0.1469 seconds with return value 0
Press any key to continue . . .
```

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.exe
- Output Size: 1.83386421203613 MiB
- Compilation Time: 0.99s
```

Line: 27 Col: 2 Sel: 0 Lines: 28 Length: 611 Insert Done parsing in 0.016 seconds

4) Define a class Book with title and price. Use a to copy values from one object to another.



C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
practise_blank.cpp
C:\Users\madee\OneDrive\Dc
Compiler
Resources
Compile Log
Debug
Find Results
Close
Abort Compilation
Shorten compiler paths
34°C
Sunny
Search
ENG
IN
12:40
21-08-2025

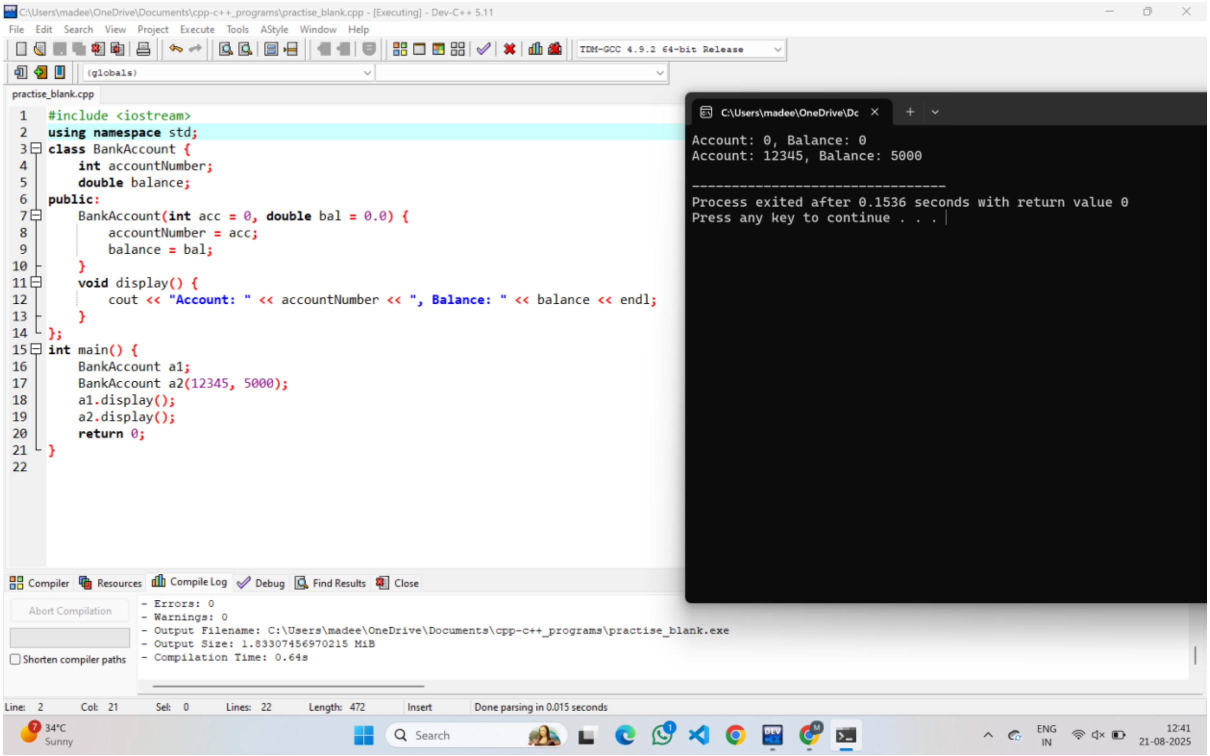
```cpp
#include <iostream>
using namespace std;
class Book {
    string title;
    float price;
public:
    Book(string t, float p) {
        title = t;
        price = p;
    }
    Book(const Book &b) {
        title = b.title;
        price = b.price;
    }
    void display() {
        cout << "Title: " << title << ", Price: " << price << endl;
    }
};
int main() {
    Book b1("C++ Guide", 299.99);
    Book b2 = b1;
    b1.display();
    b2.display();
    return 0;
}
```

```
Title: C++ Guide, Price: 299.99
Title: C++ Guide, Price: 299.99

--------------------------------
Process exited after 0.1504 seconds with return value 0
Press any key to continue . . .
```

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.exe
- Output Size: 1.83737182617188 MiB
- Compilation Time: 0.59s
```

Line: 18 Col: 3 Sel: 0 Lines: 26 Length: 495 Insert Done parsing in 0.016 seconds

5) Create a class BankAccount with accountNumber and balance. Use a constructor with if not given.


C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
practise_blank.cpp
C:\Users\madee\OneDrive\Dc
Compiler Resources Compile Log Debug Find Results Close
Abort Compilation
□ Shorten compiler paths
34°C
Sunny
Search
ENG
IN
12:41
21-08-2025

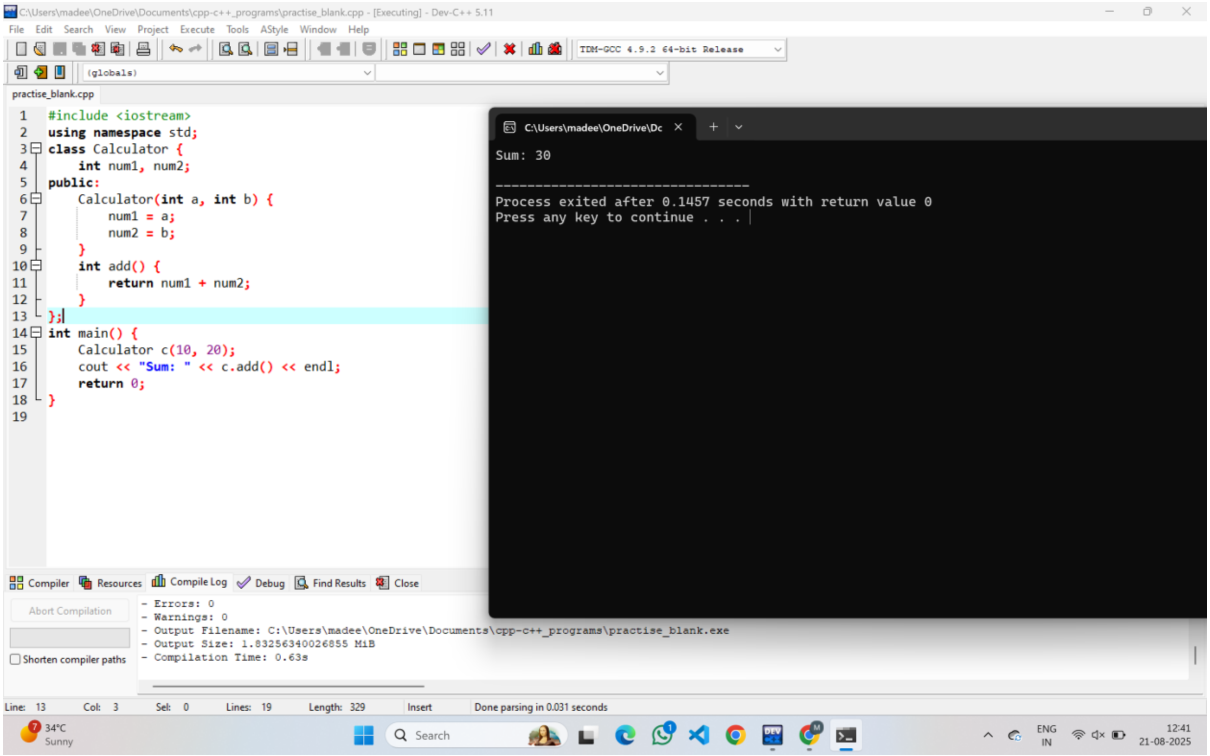
```cpp
#include <iostream>
using namespace std;
class BankAccount {
    int accountNumber;
    double balance;
public:
    BankAccount(int acc = 0, double bal = 0.0) {
        accountNumber = acc;
        balance = bal;
    }
    void display() {
        cout << "Account: " << accountNumber << ", Balance: " << balance << endl;
    }
};
int main() {
    BankAccount a1;
    BankAccount a2(12345, 5000);
    a1.display();
    a2.display();
    return 0;
}
```

```
Account: 0, Balance: 0
Account: 12345, Balance: 5000

--------------------------------
Process exited after 0.1536 seconds with return value 0
Press any key to continue . . .
```

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.exe
- Output Size: 1.83307456970215 MiB
- Compilation Time: 0.64s
```

Line: 2 Col: 21 Sel: 0 Lines: 22 Length: 472 Insert Done parsing in 0.015 seconds

6) Write a class Calculator with two numbers. Initialize them using a constructor. Add a function to calculate


C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
practise_blank.cpp
C:\Users\madee\OneDrive\Dc
Compiler Resources Compile Log Debug Find Results Close
Abort Compilation
□ Shorten compiler paths
34°C
Sunny
Search
ENG
IN
12:41
21-08-2025

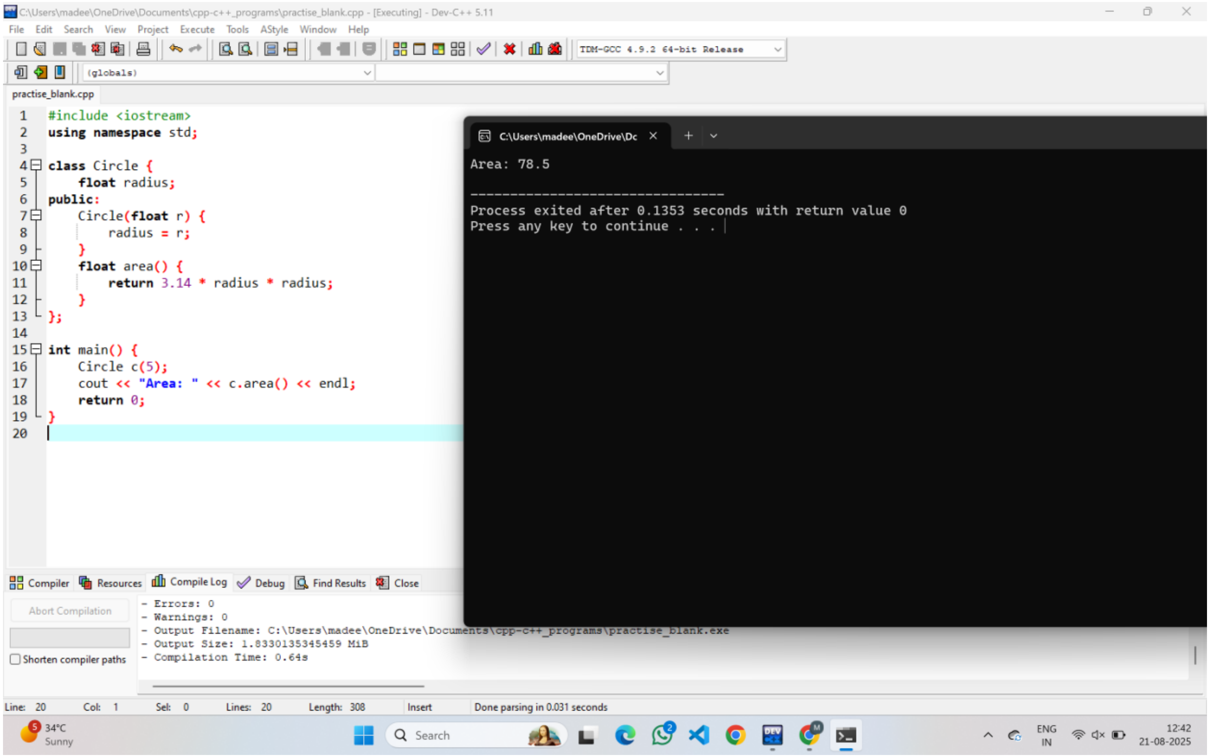
```cpp
#include <iostream>
using namespace std;
class Calculator {
    int num1, num2;
public:
    Calculator(int a, int b) {
        num1 = a;
        num2 = b;
    }
    int add() {
        return num1 + num2;
    }
};
int main() {
    Calculator c(10, 20);
    cout << "Sum: " << c.add() << endl;
    return 0;
}
```

```
Sum: 30

--------------------------------
Process exited after 0.1457 seconds with return value 0
Press any key to continue . . .
```

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.exe
- Output Size: 1.83256340026855 MiB
- Compilation Time: 0.63s
```

Line: 13 Col: 3 Sel: 0 Lines: 19 Length: 329 Insert Done parsing in 0.031 seconds

7) create a class Circle with radius. Initialize it in the constructor and calculate the area

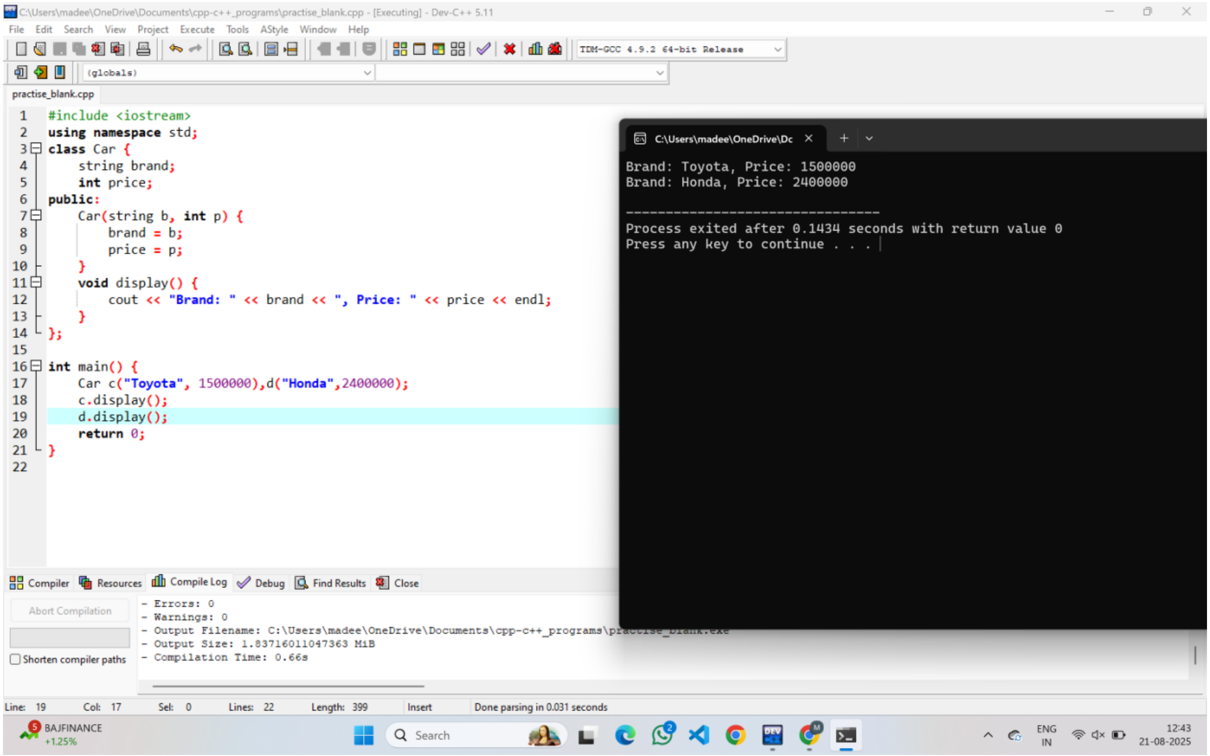

C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
practise_blank.cpp
C:\Users\madee\OneDrive\Dc
Compiler Resources Compile Log Debug Find Results Close
Abort Compilation
Shorten compiler paths
Line: 20 Col: 1 Sel: 0 Lines: 20 Length: 308 Insert Done parsing in 0.031 seconds
34°C Sunny
Search
ENG IN
12:42 21-08-2025

```cpp
#include <iostream>
using namespace std;

class Circle {
    float radius;
public:
    Circle(float r) {
        radius = r;
    }
    float area() {
        return 3.14 * radius * radius;
    }
};

int main() {
    Circle c(5);
    cout << "Area: " << c.area() << endl;
    return 0;
}
```

```
Area: 78.5

--------------------------------
Process exited after 0.1353 seconds with return value 0
Press any key to continue . . .
```

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.exe
- Output Size: 1.8330135345459 MiB
- Compilation Time: 0.64s
```

8) Create a class Car with attributes brand and price. Use a constructor to initialize them. Display details.

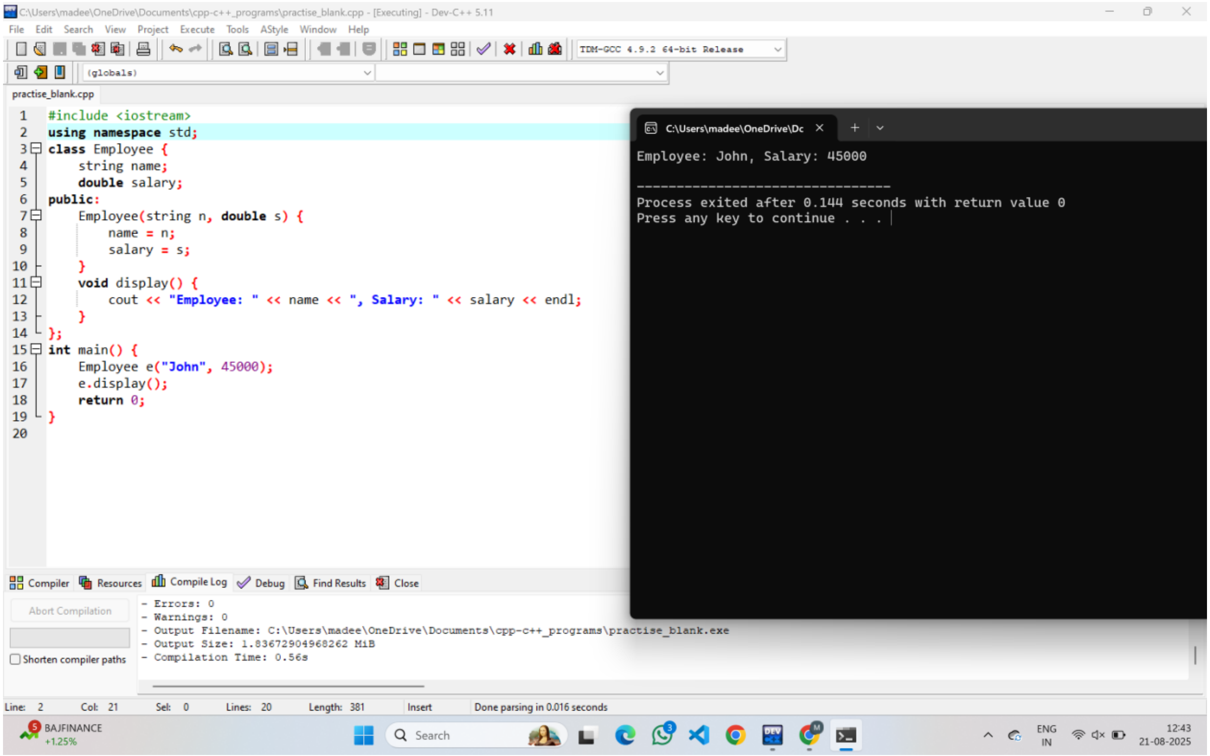

C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
practise_blank.cpp
C:\Users\madee\OneDrive\Dc
Compiler Resources Compile Log Debug Find Results Close
Abort Compilation
Shorten compiler paths
Line: 19 Col: 17 Sel: 0 Lines: 22 Length: 399 Insert Done parsing in 0.031 seconds
BAJFINANCE +1.25%
Search
ENG IN
12:43 21-08-2025

```cpp
#include <iostream>
using namespace std;
class Car {
    string brand;
    int price;
public:
    Car(string b, int p) {
        brand = b;
        price = p;
    }
    void display() {
        cout << "Brand: " << brand << ", Price: " << price << endl;
    }
};

int main() {
    Car c("Toyota", 1500000),d("Honda",2400000);
    c.display();
    d.display();
    return 0;
}
```

```
Brand: Toyota, Price: 1500000
Brand: Honda, Price: 2400000

--------------------------------
Process exited after 0.1434 seconds with return value 0
Press any key to continue . . .
```

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.exe
- Output Size: 1.83716011047363 MiB
- Compilation Time: 0.66s
```

9) Make a class Employee with name and salary. Use a constructor to set values and a function to display salary details.


C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
practise_blank.cpp
C:\Users\madee\OneDrive\Dc
Compiler
Resources
Compile Log
Debug
Find Results
Close
Abort Compilation
Shorten compiler paths
BAJFINANCE
+1.25%
Search
ENG
IN
12:43
21-08-2025

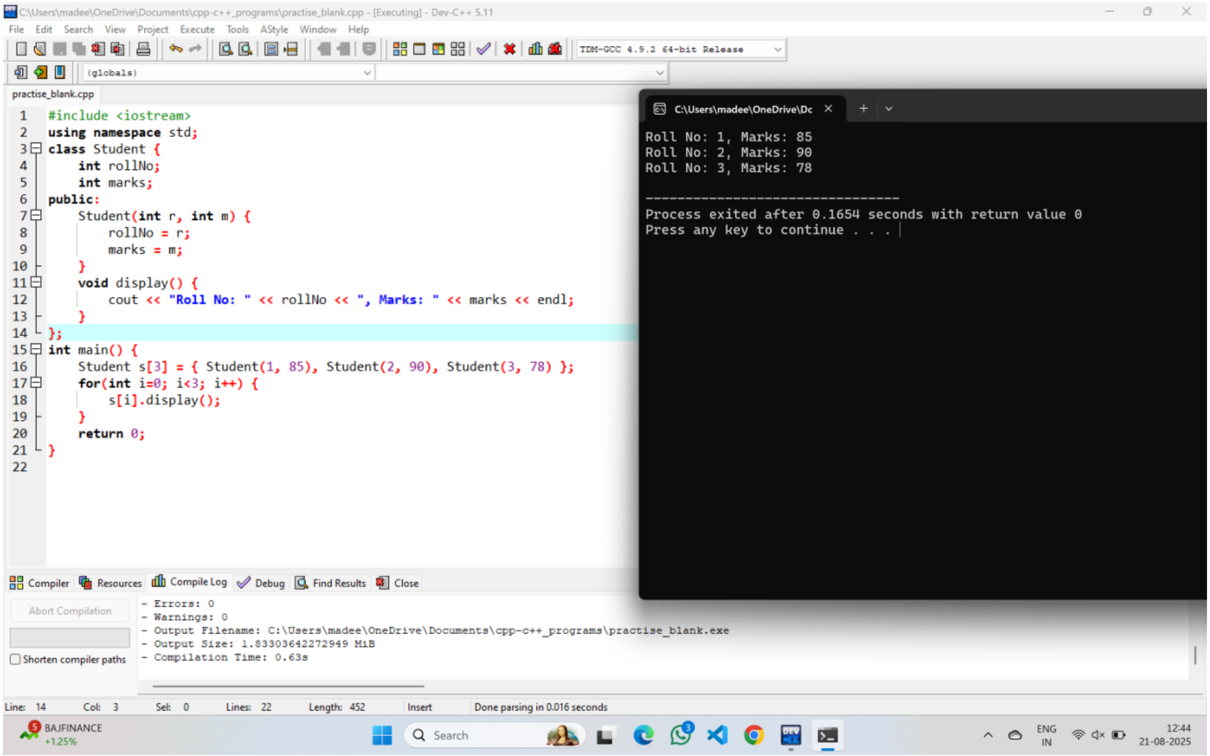
```cpp
#include <iostream>
using namespace std;
class Employee {
    string name;
    double salary;
public:
    Employee(string n, double s) {
        name = n;
        salary = s;
    }
    void display() {
        cout << "Employee: " << name << ", Salary: " << salary << endl;
    }
};
int main() {
    Employee e("John", 45000);
    e.display();
    return 0;
}
```

```
Employee: John, Salary: 45000

--------------------------------
Process exited after 0.144 seconds with return value 0
Press any key to continue . . .
```

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.exe
- Output Size: 1.83672904968262 MiB
- Compilation Time: 0.56s
```

Line: 2 Col: 21 Sel: 0 Lines: 20 Length: 381 Insert Done parsing in 0.016 seconds

10) Create a class Student with rollNo and marks. Initialize each student using a constructor in an . Display all.


C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
practise_blank.cpp
C:\Users\madee\OneDrive\Dc
Compiler
Resources
Compile Log
Debug
Find Results
Close
Abort Compilation
Shorten compiler paths
BAJFINANCE
+1.25%
Search
ENG
IN
12:44
21-08-2025

```cpp
#include <iostream>
using namespace std;
class Student {
    int rollNo;
    int marks;
public:
    Student(int r, int m) {
        rollNo = r;
        marks = m;
    }
    void display() {
        cout << "Roll No: " << rollNo << ", Marks: " << marks << endl;
    }
};
int main() {
    Student s[3] = { Student(1, 85), Student(2, 90), Student(3, 78) };
    for(int i=0; i<3; i++) {
        s[i].display();
    }
    return 0;
}
```

```
Roll No: 1, Marks: 85
Roll No: 2, Marks: 90
Roll No: 3, Marks: 78

--------------------------------
Process exited after 0.1654 seconds with return value 0
Press any key to continue . . .
```

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\madee\OneDrive\Documents\cpp-c++_programs\practise_blank.exe
- Output Size: 1.83303642272949 MiB
- Compilation Time: 0.63s
```

Line: 14 Col: 3 Sel: 0 Lines: 22 Length: 452 Insert Done parsing in 0.016 seconds