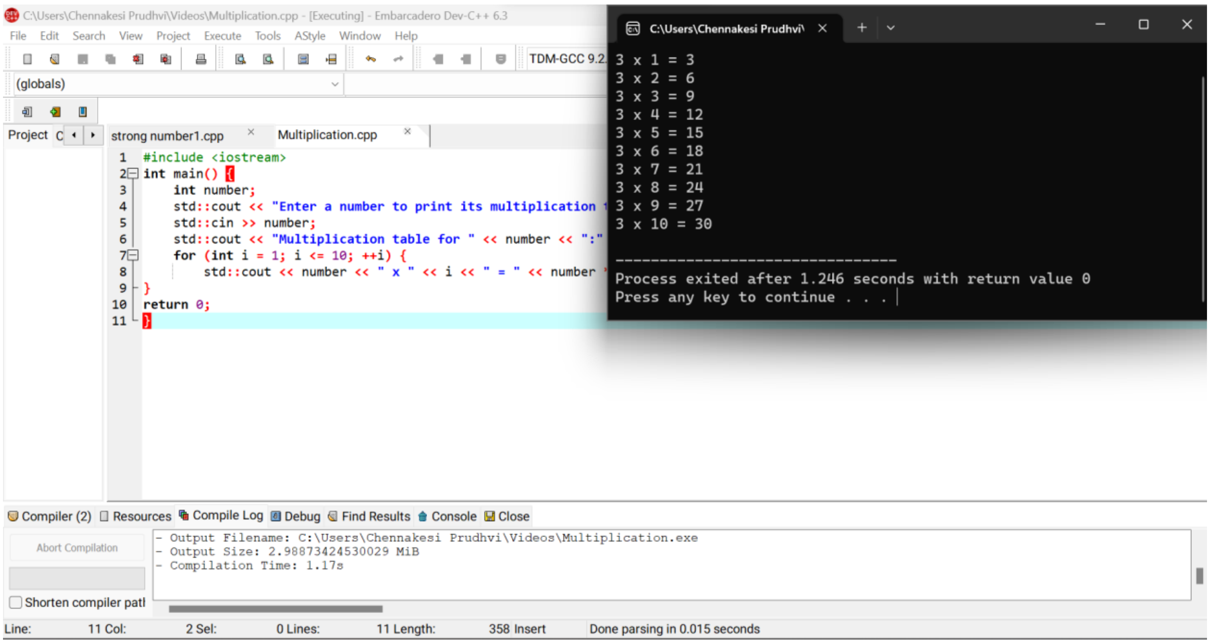
1.Multiplication table


C:\Users\Chennakesi Prudhvi\Videos\Multiplication.cpp - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2
(globals)
Project C
strong number1.cpp
Multiplication.cpp
C:\Users\Chennakesi Prudhvi\
Compiler (2) Resources Compile Log Debug Find Results Console Close
Abort Compilation
Shorten compiler patl

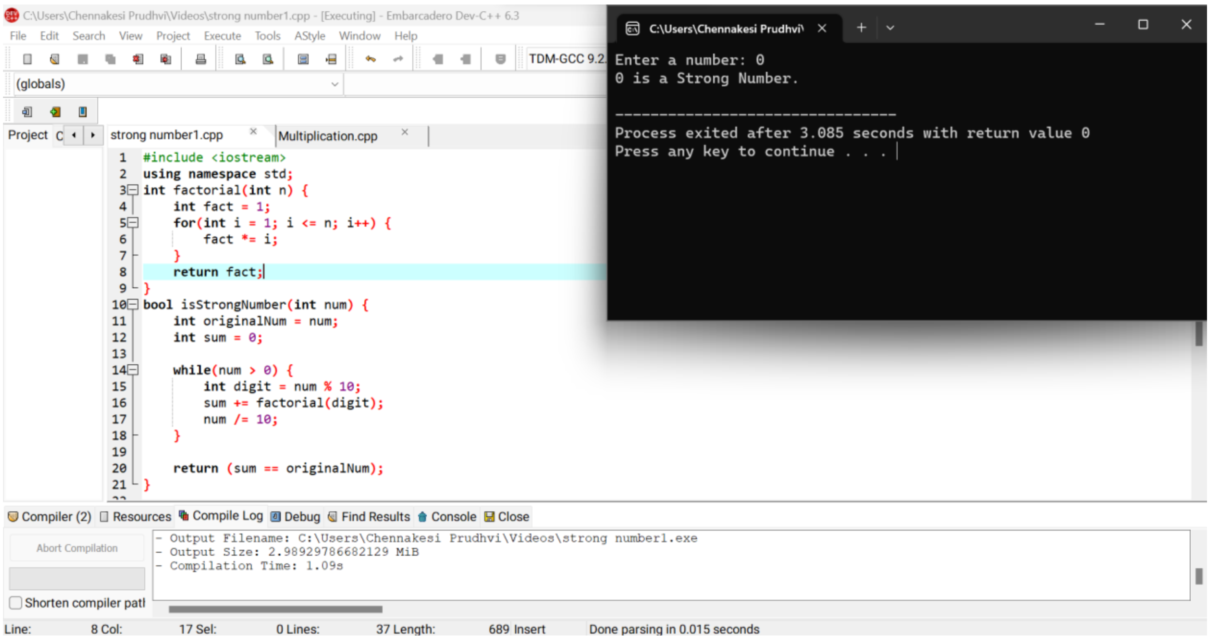
```cpp
#include <iostream>
int main() {
    int number;
    std::cout << "Enter a number to print its multiplication
    std::cin >> number;
    std::cout << "Multiplication table for " << number << ":"
    for (int i = 1; i <= 10; ++i) {
        std::cout << number << " x " << i << " = " << number
}
return 0;
}
```

```
3 x 1 = 3
3 x 2 = 6
3 x 3 = 9
3 x 4 = 12
3 x 5 = 15
3 x 6 = 18
3 x 7 = 21
3 x 8 = 24
3 x 9 = 27
3 x 10 = 30

--------------------------------
Process exited after 1.246 seconds with return value 0
Press any key to continue . . .
```

```
- Output Filename: C:\Users\Chennakesi Prudhvi\Videos\Multiplication.exe
- Output Size: 2.98873424530029 MiB
- Compilation Time: 1.17s
```

Line: 11 Col: 2 Sel: 0 Lines: 11 Length: 358 Insert Done parsing in 0.015 seconds

2.Strong Number


C:\Users\Chennakesi Prudhvi\Videos\strong number1.cpp - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2
(globals)
Project C
strong number1.cpp
Multiplication.cpp
C:\Users\Chennakesi Prudhvi\
Compiler (2) Resources Compile Log Debug Find Results Console Close
Abort Compilation
Shorten compiler patl

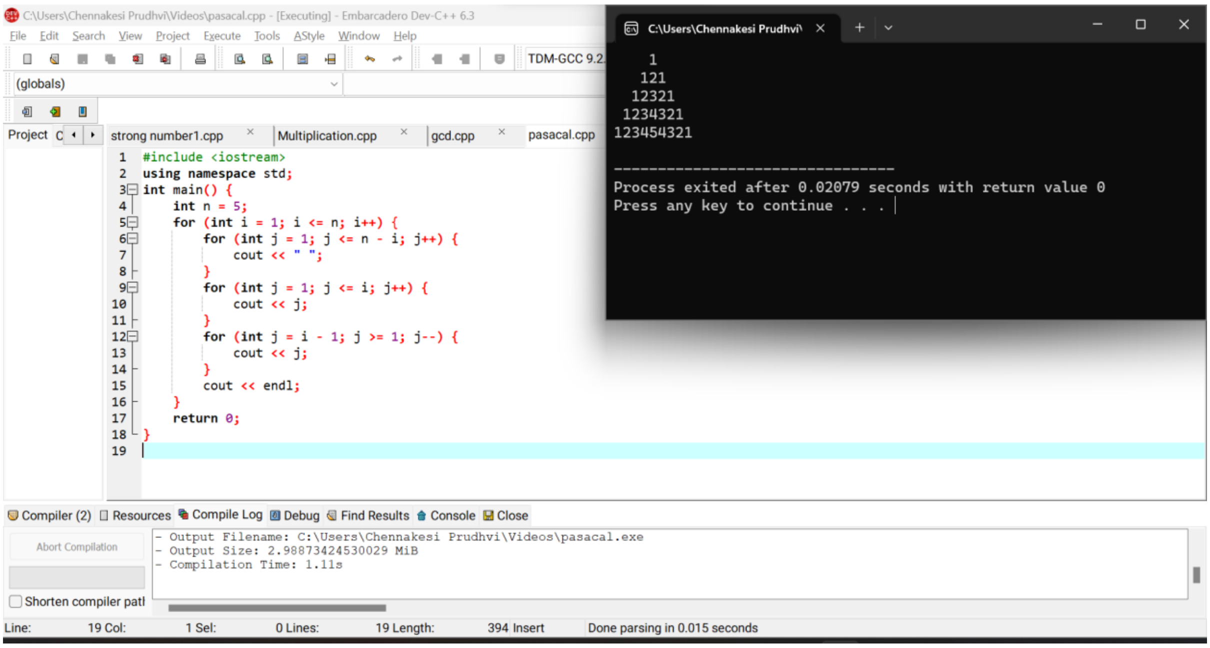
```cpp
#include <iostream>
using namespace std;
int factorial(int n) {
    int fact = 1;
    for(int i = 1; i <= n; i++) {
        fact *= i;
    }
    return fact;
}
bool isStrongNumber(int num) {
    int originalNum = num;
    int sum = 0;

    while(num > 0) {
        int digit = num % 10;
        sum += factorial(digit);
        num /= 10;
    }

    return (sum == originalNum);
}
```

```
Enter a number: 0
0 is a Strong Number.

--------------------------------
Process exited after 3.085 seconds with return value 0
Press any key to continue . . .
```

```
- Output Filename: C:\Users\Chennakesi Prudhvi\Videos\strong number1.exe
- Output Size: 2.98929786682129 MiB
- Compilation Time: 1.09s
```

Line: 8 Col: 17 Sel: 0 Lines: 37 Length: 689 Insert Done parsing in 0.015 seconds

3.Print the pattern

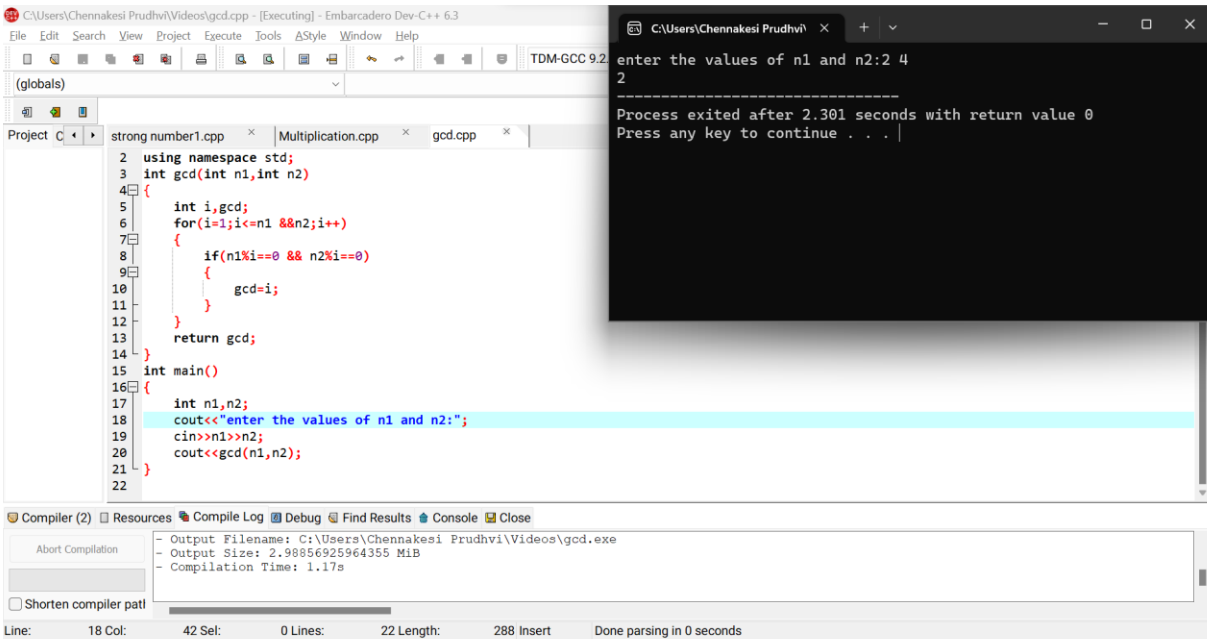

C:\Users\Chennakesi Prudhvi\Videos\pasacal.cpp - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2
(globals)
Project C
strong number1.cpp
Multiplication.cpp
gcd.cpp
pasacal.cpp
C:\Users\Chennakesi Prudhvi\
Compiler (2) Resources Compile Log Debug Find Results Console Close
Abort Compilation
Shorten compiler patl
Line: 19 Col: 1 Sel: 0 Lines: 19 Length: 394 Insert Done parsing in 0.015 seconds

```cpp
#include <iostream>
using namespace std;
int main() {
    int n = 5;
    for (int i = 1; i <= n; i++) {
        for (int j = 1; j <= n - i; j++) {
            cout << " ";
        }
        for (int j = 1; j <= i; j++) {
            cout << j;
        }
        for (int j = i - 1; j >= 1; j--) {
            cout << j;
        }
        cout << endl;
    }
    return 0;
}
```

```
    1
   121
  12321
 1234321
123454321

--------------------------------
Process exited after 0.02079 seconds with return value 0
Press any key to continue . . .
```

```
- Output Filename: C:\Users\Chennakesi Prudhvi\Videos\pasacal.exe
- Output Size: 2.98873424530029 MiB
- Compilation Time: 1.11s
```

4.GCD of two numbers

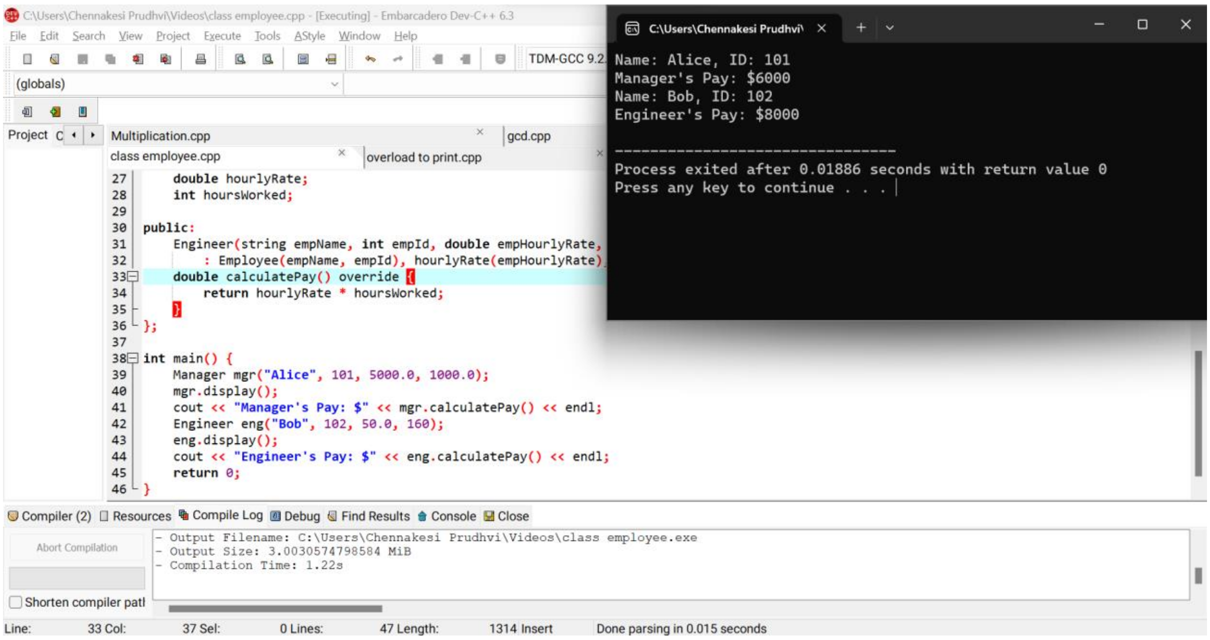

C:\Users\Chennakesi Prudhvi\Videos\gcd.cpp - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2
(globals)
Project C
strong number1.cpp
Multiplication.cpp
gcd.cpp
C:\Users\Chennakesi Prudhvi\
Compiler (2) Resources Compile Log Debug Find Results Console Close
Abort Compilation
Shorten compiler patl
Line: 18 Col: 42 Sel: 0 Lines: 22 Length: 288 Insert Done parsing in 0 seconds

```cpp
using namespace std;
int gcd(int n1,int n2)
{
    int i,gcd;
    for(i=1;i<=n1 &&n2;i++)
    {
        if(n1%i==0 && n2%i==0)
        {
            gcd=i;
        }
    }
    return gcd;
}
int main()
{
    int n1,n2;
    cout<<"enter the values of n1 and n2:";
    cin>>n1>>n2;
    cout<<gcd(n1,n2);
}
```

```
enter the values of n1 and n2:2 4
2
--------------------------------
Process exited after 2.301 seconds with return value 0
Press any key to continue . . .
```

```
- Output Filename: C:\Users\Chennakesi Prudhvi\Videos\gcd.exe
- Output Size: 2.98856925964355 MiB
- Compilation Time: 1.17s
```

5.Base class for Employee and Manager


C:\Users\Chennakesi Prudhvi\Videos\class employee.cpp - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2
(globals)
Project C
Multiplication.cpp
gcd.cpp
class employee.cpp
overload to print.cpp
C:\Users\Chennakesi Prudhvi\
Compiler (2) Resources Compile Log Debug Find Results Console Close
Abort Compilation
Shorten compiler path

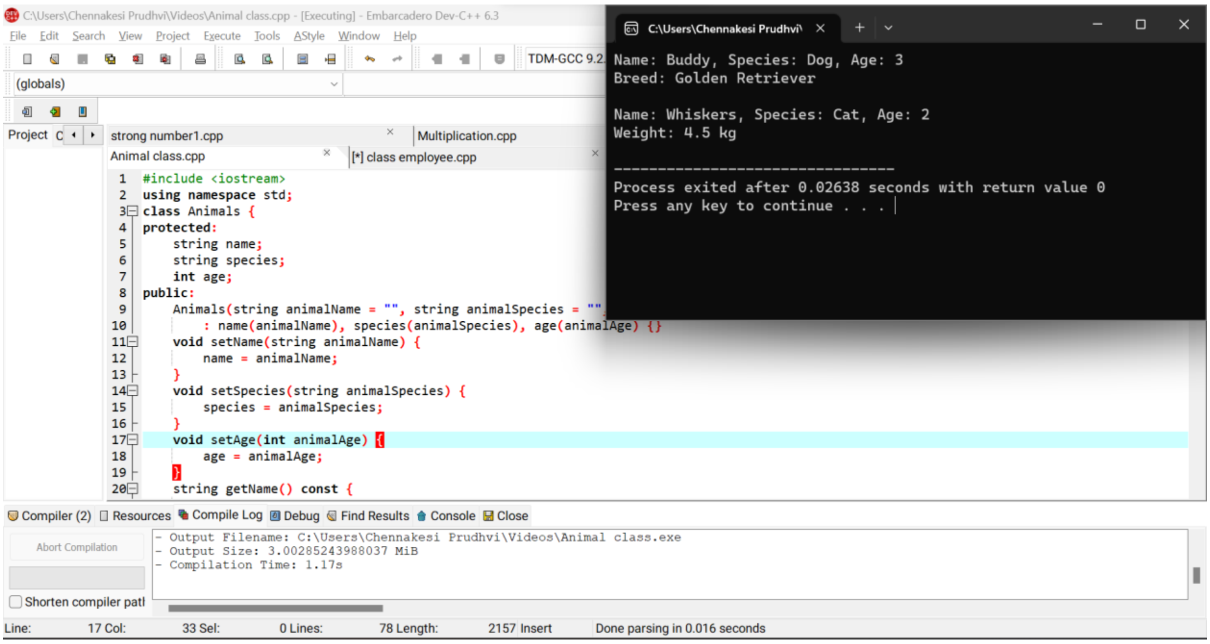
```
    double hourlyRate;
    int hoursWorked;

public:
    Engineer(string empName, int empId, double empHourlyRate,
        : Employee(empName, empId), hourlyRate(empHourlyRate)
    double calculatePay() override {
        return hourlyRate * hoursWorked;
    }
};

int main() {
    Manager mgr("Alice", 101, 5000.0, 1000.0);
    mgr.display();
    cout << "Manager's Pay: $" << mgr.calculatePay() << endl;
    Engineer eng("Bob", 102, 50.0, 160);
    eng.display();
    cout << "Engineer's Pay: $" << eng.calculatePay() << endl;
    return 0;
}
```

```
Name: Alice, ID: 101
Manager's Pay: $6000
Name: Bob, ID: 102
Engineer's Pay: $8000

--------------------------------
Process exited after 0.01886 seconds with return value 0
Press any key to continue . . .
```

```
- Output Filename: C:\Users\Chennakesi Prudhvi\Videos\class employee.exe
- Output Size: 3.0030574798584 MiB
- Compilation Time: 1.22s
```

Line: 33 Col: 37 Sel: 0 Lines: 47 Length: 1314 Insert Done parsing in 0.015 seconds

6.Base class animal


C:\Users\Chennakesi Prudhvi\Videos\Animal class.cpp - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2
(globals)
Project C
strong number1.cpp
Multiplication.cpp
Animal class.cpp
[*] class employee.cpp
C:\Users\Chennakesi Prudhvi\
Compiler (2) Resources Compile Log Debug Find Results Console Close
Abort Compilation
Shorten compiler path

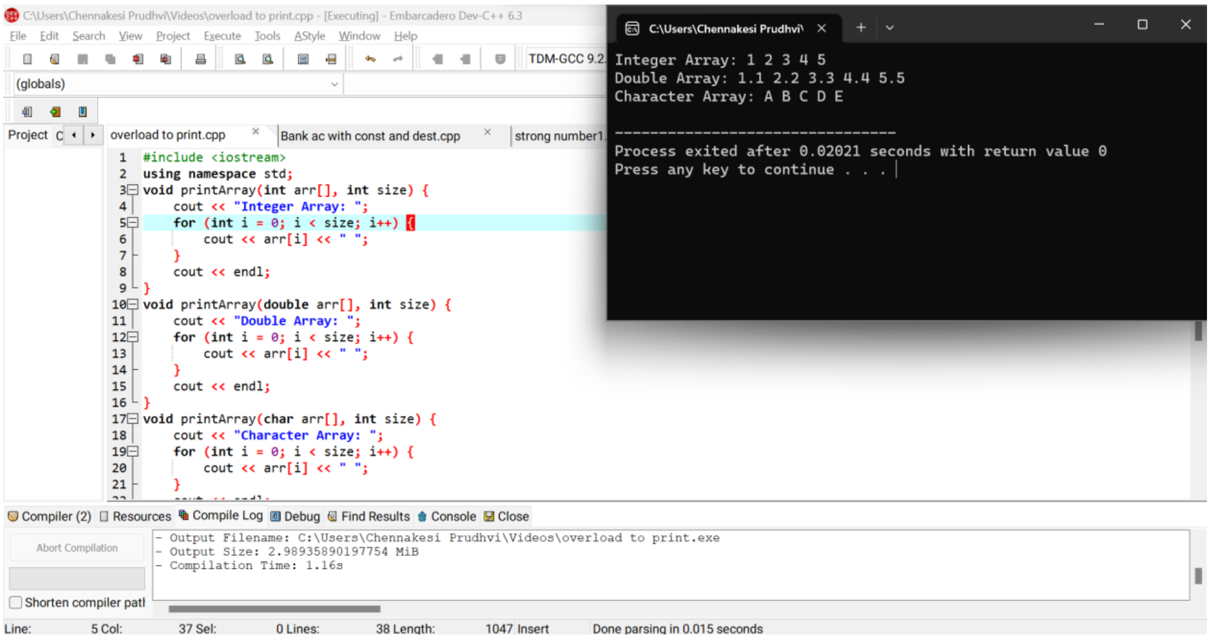
```
#include <iostream>
using namespace std;
class Animals {
protected:
    string name;
    string species;
    int age;
public:
    Animals(string animalName = "", string animalSpecies = ""
        : name(animalName), species(animalSpecies), age(animalAge) {}
    void setName(string animalName) {
        name = animalName;
    }
    void setSpecies(string animalSpecies) {
        species = animalSpecies;
    }
    void setAge(int animalAge) {
        age = animalAge;
    }
    string getName() const {
```

```
Name: Buddy, Species: Dog, Age: 3
Breed: Golden Retriever

Name: Whiskers, Species: Cat, Age: 2
Weight: 4.5 kg

--------------------------------
Process exited after 0.02638 seconds with return value 0
Press any key to continue . . .
```

```
- Output Filename: C:\Users\Chennakesi Prudhvi\Videos\Animal class.exe
- Output Size: 3.00285243988037 MiB
- Compilation Time: 1.17s
```

Line: 17 Col: 33 Sel: 0 Lines: 78 Length: 2157 Insert Done parsing in 0.016 seconds

7.Print the contents of integer, double and character array

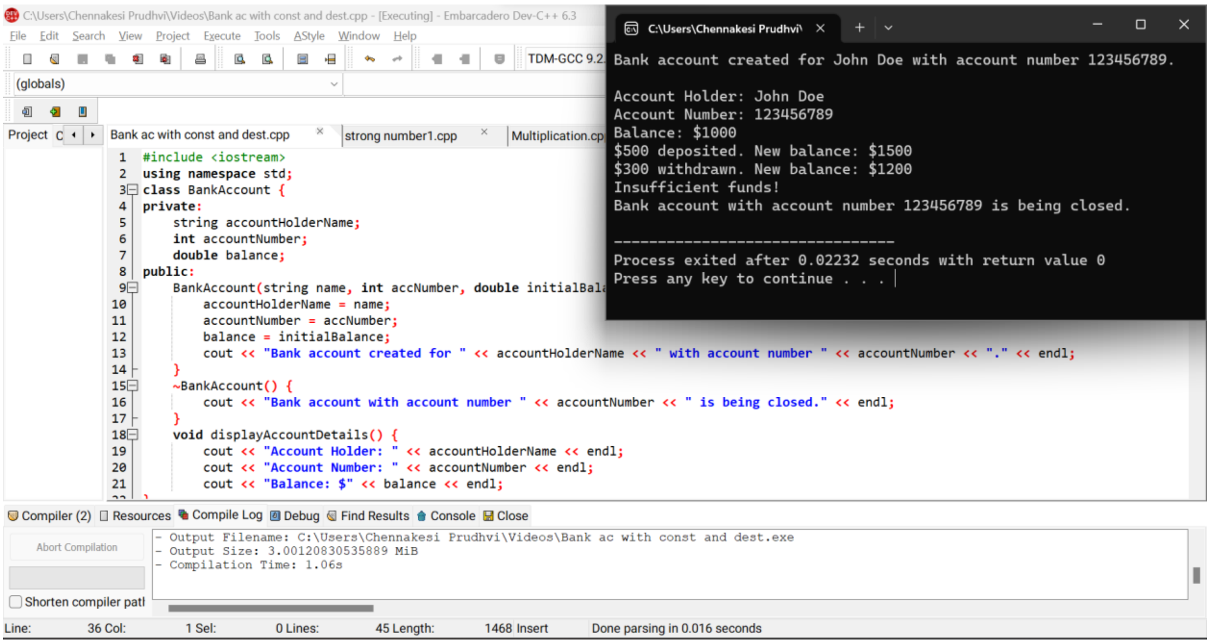

C:\Users\Chennakesi Prudhvi\Videos\overload to print.cpp - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2
(globals)
Project
overload to print.cpp
Bank ac with const and dest.cpp
strong number1
C:\Users\Chennakesi Prudhvi\
Compiler (2) Resources Compile Log Debug Find Results Console Close
Abort Compilation
Shorten compiler path
Line: 5 Col: 37 Sel: 0 Lines: 38 Length: 1047 Insert Done parsing in 0.015 seconds

```
#include <iostream>
using namespace std;
void printArray(int arr[], int size) {
    cout << "Integer Array: ";
    for (int i = 0; i < size; i++) {
        cout << arr[i] << " ";
    }
    cout << endl;
}
void printArray(double arr[], int size) {
    cout << "Double Array: ";
    for (int i = 0; i < size; i++) {
        cout << arr[i] << " ";
    }
    cout << endl;
}
void printArray(char arr[], int size) {
    cout << "Character Array: ";
    for (int i = 0; i < size; i++) {
        cout << arr[i] << " ";
    }
```

```
Integer Array: 1 2 3 4 5
Double Array: 1.1 2.2 3.3 4.4 5.5
Character Array: A B C D E

--------------------------------
Process exited after 0.02021 seconds with return value 0
Press any key to continue . . .
```

```
- Output Filename: C:\Users\Chennakesi Prudhvi\Videos\overload to print.exe
- Output Size: 2.98935890197754 MiB
- Compilation Time: 1.16s
```

8.Bank account for constructor and destructor


C:\Users\Chennakesi Prudhvi\Videos\Bank ac with const and dest.cpp - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2
(globals)
Project
Bank ac with const and dest.cpp
strong number1.cpp
Multiplication.cp
C:\Users\Chennakesi Prudhvi\
Compiler (2) Resources Compile Log Debug Find Results Console Close
Abort Compilation
Shorten compiler path
Line: 36 Col: 1 Sel: 0 Lines: 45 Length: 1468 Insert Done parsing in 0.016 seconds

```
#include <iostream>
using namespace std;
class BankAccount {
private:
    string accountHolderName;
    int accountNumber;
    double balance;
public:
    BankAccount(string name, int accNumber, double initialBal
        accountHolderName = name;
        accountNumber = accNumber;
        balance = initialBalance;
        cout << "Bank account created for " << accountHolderName << " with account number " << accountNumber << "." << endl;
    }
    ~BankAccount() {
        cout << "Bank account with account number " << accountNumber << " is being closed." << endl;
    }
    void displayAccountDetails() {
        cout << "Account Holder: " << accountHolderName << endl;
        cout << "Account Number: " << accountNumber << endl;
        cout << "Balance: $" << balance << endl;
```

```
Bank account created for John Doe with account number 123456789.

Account Holder: John Doe
Account Number: 123456789
Balance: $1000
$500 deposited. New balance: $1500
$300 withdrawn. New balance: $1200
Insufficient funds!
Bank account with account number 123456789 is being closed.

--------------------------------
Process exited after 0.02232 seconds with return value 0
Press any key to continue . . .
```

```
- Output Filename: C:\Users\Chennakesi Prudhvi\Videos\Bank ac with const and dest.exe
- Output Size: 3.00120830535889 MiB
- Compilation Time: 1.06s
```