C++ MODEL EXAM:

1.sum of elements in array22

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

int main()
{
    float fahrenheit, celsius;

    cout << "Enter the temperature in Celsius : ";
    cin >> celsius;
    fahrenheit = (celsius * 9.0) / 5.0 + 32;
    cout << "The temperature in Celsius    : " << celsius << endl;
    cout << "The temperature in Fahrenheit : " << fahrenheit << endl;
    return 0;
}
```

```
C:\Users\avalakunta sai\Docu
Enter the temperature in Celsius : 4
The temperature in Celsius    : 4
The temperature in Fahrenheit : 39.2

--------------------------------
Process exited after 2.752 seconds with return val
Press any key to continue . . .
```

2.celsius and fahrenheit

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

int sum(int arr[], int n)
{
    int sum = 0;
    for (int i = 0; i < n; i++)
        sum += arr[i];

    return sum;
}

int main()
{
    int arr[] = { 1,2,3,4};
    int n = sizeof(arr) / sizeof(arr[0]);
    cout << "Sum of given array is " << sum(arr, n);
    return 0;
}
```

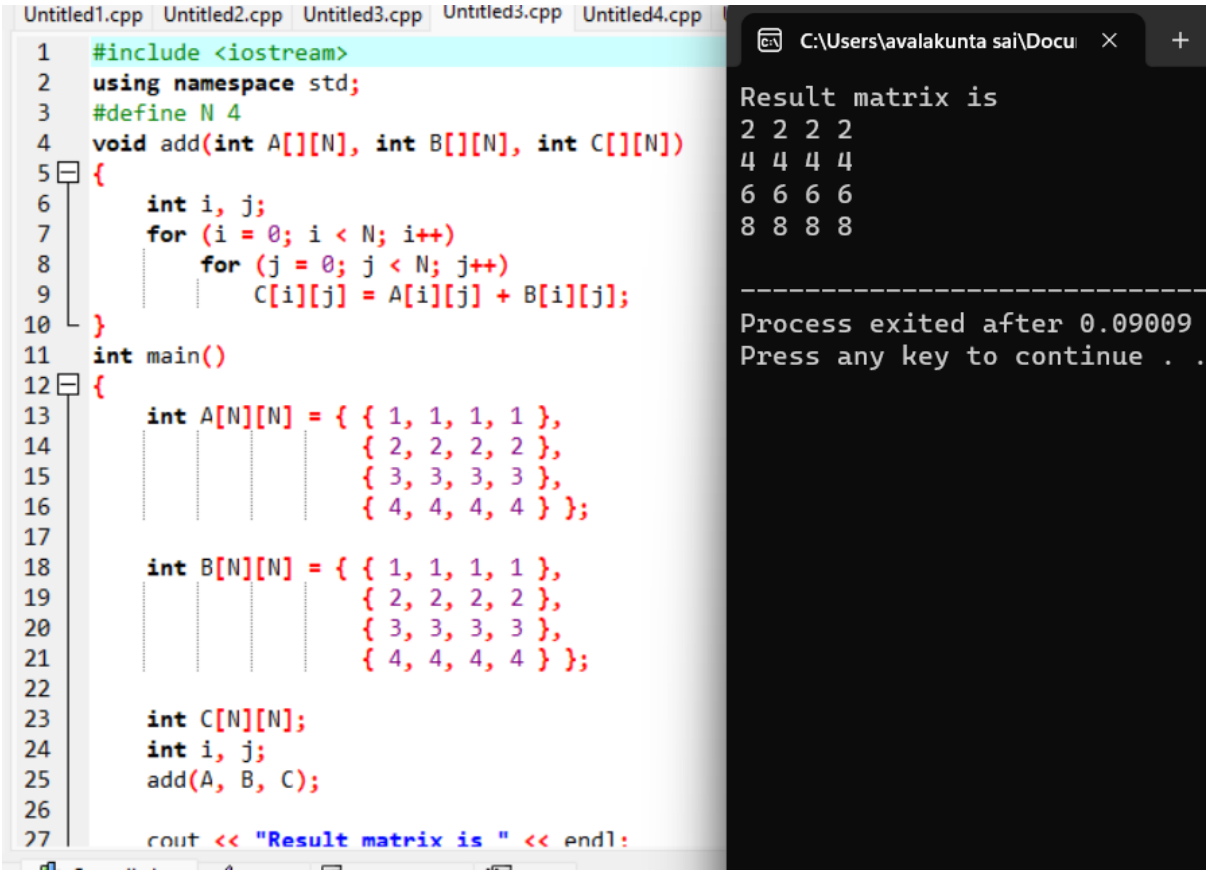
```
C:\Users\avalakunta sai\Docu
Sum of given array is 10
--------------------------------
Process exited after 0.08635 seconds with return value 0

Press any key to continue . . .
```

3.pattern

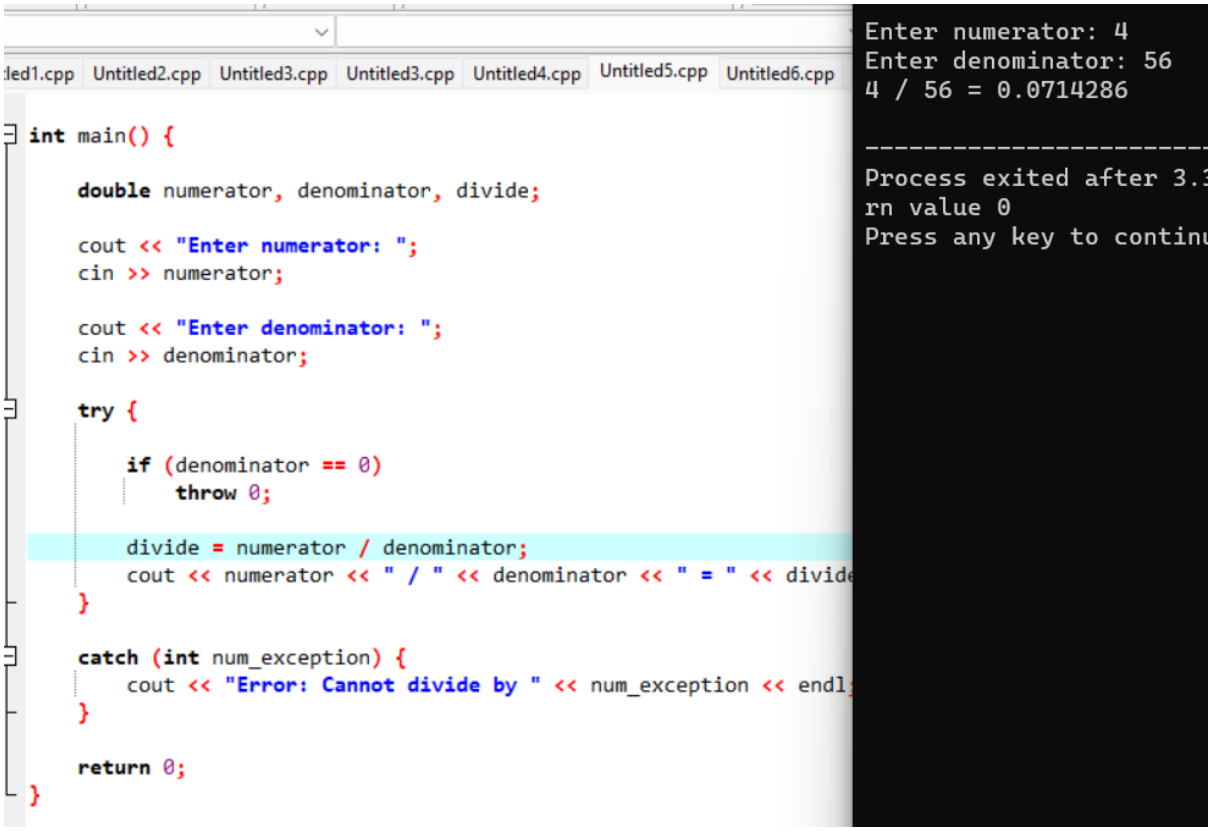
```cpp
#include <iostream>
using namespace std;

int main() {

    int rows;

    cout << "Enter number of rows: ";
    cin >> rows;

    for(int i = 1; i <= rows; ++i) {
        for(int j = 1; j <= i; ++j) {
            cout << j << " ";
        }
        cout << "\n";
    }
    return 0;
}
```

```
Result matrix is
2 2 2 2
4 4 4 4
6 6 6 6
8 8 8 8

--------------------------------
Process exited after 0.08142 s
Press any key to continue . .
```

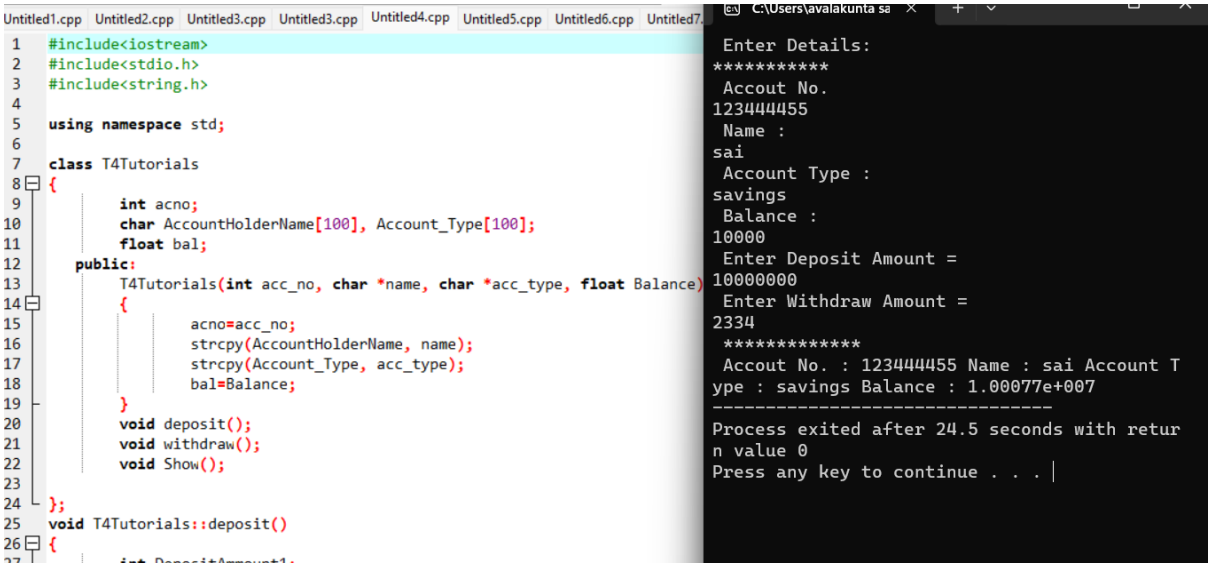
4.add 2 matrix



5.exception handling.



6.constructor and destructor.



7.squareroot.

```cpp
#include<iostream>
#include<cmath>
using namespace std;
int main()
{
    cout<<"squre root of 25=";
    cout<<sqrt(25);
    return 0;
}
```

```
C:\Users\avalakunta sai\Docu
squre root of 25=5
--------------------------------
Process exited after 0.0829 seconds wi
Press any key to continue . . .
```

8.create a base class for employee.

```cpp
#include <iostream>
#include <string>
using namespace std;
class Employee {
protected:
    string Emp_name;
    int Emp_id;
    string Address;
    string Mail_id;
    string Mobile_no;
public:
    Employee(const string& name, int id, const string& address, const string& mail, cor
        : Emp_name(name), Emp_id(id), Address(address), Mail_id(mail), Mobile_no(mobile

    virtual void generatePaySlip() = 0;
};
class Programmer : public Employee {
protected:
    double BP;
public:
    Programmer(const string& name, int id, const string& address, const string& mail, c
        : Employee(name, id, address, mail, mobile), BP(basicPay) {}
    void generatePaySlip() override {
        double DA = 0.97 * BP;
        double HRA = 0.10 * BP;
        double PF = 0.12 * BP;
        double staffClubFund = 0.001 * BP;
```

```
C:\Users\avalakunta sa
Pay Slip for Programmer
Employee Name: John Doe
Employee ID: 101
Address: 123 Street Ave
Mail ID: john@example.com
Mobile Number: 1234567890
Basic Pay: 50000
Dearness Allowance: 48500
House Rent Allowance: 5000
Provident Fund: 6000
Staff Club Fund: 50
Gross Salary: 103500
Net Salary: 97450

--------------------------------
Process exited after 0.08865 second
turn value 0
Press any key to continue . . .
```