

# Functions

To split the code into different parts

```
#include <iostream>
using namespace std;
int main(){
    int num1, num2, sum;
    //---- Read Numbers -----
    cout << "\nEnter the first number : ";
    cin >> num1;
    cout << "\nEnter the second number : ";
    cin >> num2;

    //---- Compute answer -----
    sum = num1 + num2;

    //---- Display Result -----
    cout << "\nThe sum is : << sum << "\n";

    return 0;
}
```

This can be split into different parts:

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

//---- Global Variables ----
int num1, num2, sum;

//---- Function Prototypes ----
void getnumbers(void);
void computesum(void);
void printsum(void);

int main(){
    getnumbers(); // Get two numbers from User
    computesum(); // Compute the Sum
    printsum(); // Print the Sum
    return 0;
}

void getnumbers(void){ // Get two numbers from user
    cout << "\nEnter the First Number : ";
    cin >> num1; // Get first number
    cout << "\nEnter the second number : ";
```

```

        cin >> num2; // Get second number
        return;
    }
    void computesum(void){ // Compute the Sum
        sum = num1 + num2; // Sum is 1st Num + 2nd Num
        return;
    }
    void printsum(void){ // Print the Sum
        cout << "\nThe sum is : " << sum << "\n";
        return;
    }
}

```

Variables outside any functions is known as a Global variable.

Variables inside a given functions is known as a Local variable.

```

void getValue(void); // Will not return any value (void means empty)
void getNumber(double); // Will return a value of magnitude double

```

Example:

```

#include <iostream>
using namespace std;

oid printsum(int sum); //-- Function Prototype --

int main(){
    int num1, num2, sum; //-- Local Variables

    cout << "\nEnter the first number : ";
    cin >> num1; //-- Get first number
    cout << "\nEnter the second number : ";
    cin >> num2; //-- Get second number

    sum = num1 + num2; printsum(sum); //-- Print the sum

    return 0;
}

void printsum(int sum){
    cout << "\nThe sum is " << sum << "\n";
    return;
}

```