

Assignment 1

1. What about the history of OOP and the development of C++.
2. What are **abstract** and **encapsulation**? Illustrate with examples.
3. What about **information hiding** and **implementation hiding** and its meaning.
4. What are **class**, **object**, **inheritance** and **polymorphism**? Illustrate with examples.
5. Research on the literature of **UML** to understand the UML representation of the concepts of class, object, inheritance, association, aggregation and combination, and illustrate with examples.
6. What are the popular C++ development tools? What about their evaluation? What kind of C++ development tool do you adopt? What about its characteristics? What kind of compiler do you adopt? What about its support for the C++ 11/14 standard?
7. What are the differences between the data types of C++ and C?
8. Read the following program and determine the output.
Given the input "12 345 634 3214", and then press Enter key, please determine the output.

```
#include<iostream>
using namespace std;
int main(){
    int a;
    char b;
    char c[4];
    double d;
    cin>>a>>b>>c>>d;
    cout<<"a="<<a<<endl;
    cout<<"b="<<b<<endl;
    cout<<"c="<<c<<endl;
    cout<<"d="<<d<<endl;
    return 0;
}
```

✧ Note:

For the assignment, write all your answer in the word document and save it with the name of "**StudentID_Name_1.pdf**". (The StudentID should be your full student ID such as **2023337621003_叶子绿_1.pdf**).

- ✧ Submit your assignment before the end of next Monday (**March 4**) to the Superstar platform!