

Introduction to C++

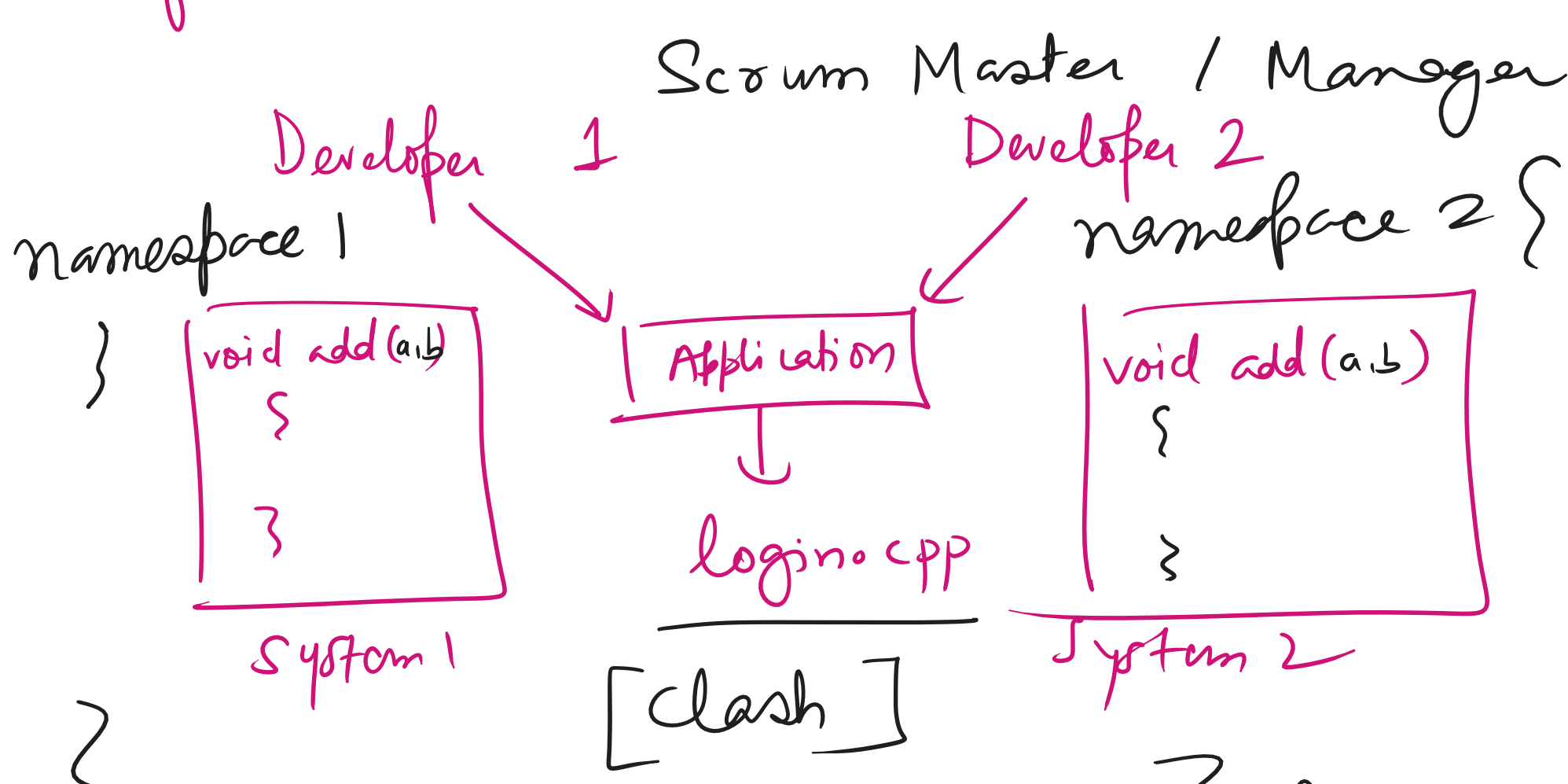
```
#include <stdio.h>
int main()
{
    printf("JSSATE");
}
```

return 0;
} printf { } scanf { } input & output

std::cin >> { input & output
std::cout << }

#include <iostream>
continuous flow of bytes (1s & 0s)

```
int main()
{
    std::cout << "JSSATE";
    // Scope resolution operator
    return 0;
} "No Format Specifiers"
```



A namespace is an entity used to store parameters, methods of a particular type without clashing with other parts of the file.

Object Oriented Programming : →

Procedure Oriented Language → C

struct {

} efficient X

union { Person

↳ name

↳ age

↳ salary

}

OOP → C++, Java, Python, JavaScript, etc

class {

string

↳

Array of characters

R A H U L

User-defined Data Types Assign N Display Shared Memory

struct Person {
char name[20];
int age;
int salary;
}

Separate Memory

Memory Allocated

V1 → M1

V2 → M2

V3 → M3

Size

Σ V1 + V2 + V3

union Person {

char name[20];

int age;

int salary;

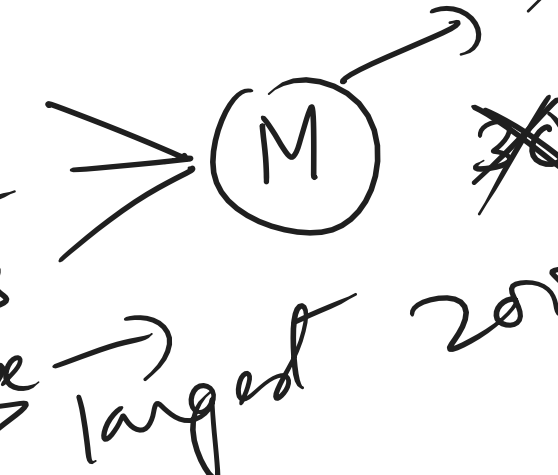
}

V1

V2

V3

size



Supra

20000

Classes & Objects : →

Entity → Employee

class / Blueprint / Template

Encapsulation

↳ Name

↳ Age

↳ Company

Attributes

or

Properties

↳ functions

read ()

write ()

Methods

(Describe the behaviour)

OOP

① Code Reusability → Time / Money

② Security → private / public

X 50 objects x 5 lines = 250 lines
3 lines = 150 lines

Heap Memory

Constructor

Special Method Used To Initialize Objects

→ Same name as the class

→ always public

→ Types → Default Constructor / No-argument constructor

→ Parameterized Constructor

There can be only one destructor inside a class. It is used to destroy all the objects after program execution. ~ClassName () {

* The process of wrapping / enclosing the data inside a class is called "Encapsulation". It is done by making the data members, attributes, methods of the class "private". In order to access them we use : Special Methods → getters & setters

public

(m, c, r, f)

* DMA in C++ → new & delete

* Arrays → Searching & Sorting

* Data Structures : →