1. medicine capsule,
2. Your Bag where you put your laptop, charger, pen and book.

jab ham kisi class ke andar koi variable ko access specifiers like **private and protected** ka use karke banate hai to vha encapsulation implement ho jata or ye esleaye karte hai taki koi mere class ke variables ko directly access nhi kar pae.
Agar koi directly access nhi kar paaega to vah variable secure ho jayega.

Advantages-:
Data security
jiske pass rights nhi hai vo access karga hee nhi
secure modification (like update and delete and add)

Disadvantage-:
1.Difficult to understand if anyone new in oops coding.
2.If you are not aware with getter and setter(constructor) so become difficult to implement.

Abstraction->

Hiding the internal working and showing the feature to the user.

abstraction means kaam kee cheejo ko used ko dikhana or uska internal function kaisa hai usko hide karke rakhna use ham abstraction bolte hai.

Real Time Example->
When we click on the computer keyboard that tine the alphabet or symbols simple display on the screen.
(Here we are only see the alphabets and symbols on the screen but we do not know how they are actually printing what is the process behind it for printing something on the display.

Technical Example-> reverse() function in staring we simple pass the string to the function we dont how it reverse the string internally.

Advantage-:
Hiding internal implementation working of any thing only display features.
Its responsible for what to do rather how to do.

Disadvantage-:
difficult to manage internal implementation.
need proper understanding of ang prog. language.
require more information when design the implementation.

Interview me ye vala karna

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

class Numbers {

public:
    int x,y;
    Numbers(int num1,int num2) {
        x=num1;
        y=num2;
    }
    int maximumOfTwoNo() {
        return max(x,y);
    }
};

int main()
{
    Numbers ob1(10,20);

    int bigNo=ob1.maximumOfTwoNo();
    cout<<"The maximum number is "<<bigNo<<endl;

    return 0;
}
```

// Kisi ko samjhane ke leaye ye kar lena

```
#include <bits/stdc++.h>
using namespace std;
int main()
{
  int num1=10;
  int num2=20;
  int bigNo=max(num1,num2);// here max function calculate the maximum we simply
use  rather than focus how to get max number via max() function
  cout<<"The maximum number is "<<bigNo<<endl;

    return 0;
}
```

Polymorphism->

It is a opps pillar which is generally combination of 2 Greek words i.e Poly(Many) and 2nd word is phism(phases).

When an object behave differently according to the condition that is known as the polymorphism.

Real Time Example->
A woman can behave differently according to the condition at home she behaves like house wife when she at office behaves like employee, when she in the market behaves customer, here woman is the single object but she play different role according to the condition(like home, office, market etc).

Technical Example-> we have + operator when we use inside numbers that time it perform addition and when we use between strings it perform string concatenation.

Types of Polymorphism->

Compile time polymorphism->
when we come to know which task we have to perform at the code compilation time, i.e known as compile time polymorphism .
it is also known as static binding(function binding).

Real Time example-> when i make a call to my friend i know which sim i have to select for making the call to him.

Technical Example->
when we have multiple function in the same class but each function has different parameter based on the parameter i know when i call the function we pass the argument and a function which match no. of argument with parameter that function invoke.
this is a compile time polymorphism.

Types of Compile Time Polymorphism->

Inheritance
Abstruct Class
Friend Function

1.Single Inheritance
2.multiple Inheritance
3.Multilevel Inheritance
4.Hierarchical Inheritance

Runtime polymorphism

Function Overriding (Virtual Function)

```
class HDFCBank{
private:
      int bankBalance=0;

public:
    void paisaJamakardo(int receiveAmount){
            bankBalance=bankBalance+receiveAmount;
    }
    void paisaNikalo(int withrowAmount){
            bankBalance=bankBalance-withrowAmount;
    }


void mereAccountmePaiseBtado(){
cout<<"My current bank balance is"<<bankBalance<<endl;

}

};
HDFCBank ob1;
//wrong hai
cout<<"bank balance"<<ob1.bankBalance<<endl;// app directly class ke private variable ko class ke bahar
access kar rhe hai means error aa jayega bcs vo variable private hai

ob1.mereAccountmePaiseBtado();
```