

## DAILY ASSESSMENT FORMAT

<b>Date:</b>	<b>25-06-2020</b>	<b>Name:</b>	<b>BINDUSHRI</b>
<b>Course:</b>	<b>C++ programming</b>	<b>USN:</b>	<b>4AL17EC011</b>
<b>Topic:</b>	<b>Inheritance files</b>		<b>6<sup>th</sup> A</b>
<b>Github Repository:</b>	<b>Bindushri</b>		

## FORENOON SESSION DETAILS

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SOLLEARN

Inheritance & Polymorphism  
Derived Class Constructor & Destructor

XP 313

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### Summary

**Constructors**  
The base class constructor is called first.

**Destructors**  
The derived class destructor is called first, and then the base class destructor gets called.

This sequence makes it possible to specify initialization and de-initialization scenarios for your derived classes.

52 COMMENTS

Q&A

→

Bindushri  
binduamin9803@gmail.com  
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Fill in the blanks to make "foo" a pure virtual function:

```
virtual void foo() = 0;
```



Correct!

39 COMMENTS



Q&amp;A



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Hint



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binduamin9803@gmail.com

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Rearrange to declare a file object "fileObj" and open a file named "myfile.txt" by calling the open() function on the "fileObj" object.

#include &lt;fstream&gt;

int n

ofs

fileObj.open("myfile.txt");

}



Correct!

209 COMMENTS



Q&amp;A



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binduamin9803@gmail.com

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Inheritance is one of the most important concepts of object-oriented programming.

Inheritance allows us to define a class based on another class.

The class whose properties are inherited by another class is called the Base class.

Base class	Derived class
Base class features	Base class features
	Derived class features

```
class mother {
public:
    mother() {}
    void sayHi() {
        cout << "Hi";
    }
};
```

```
// Base:
class Daughter {
public:
    Daughter() {}
};
```

Syntax:

```
class Daughter: public Mother {
public:
    Daughter() {}
};
```

## Protected Members

Derived class constructor & Destructor

```
class Mother {
public:
    Mother() {
        cout << "Mother ctor" << endl;
    }
};
```

```
~Mother() {
    cout << "Mother dtor" << endl;
}

//
```

```
return main()
Mother m;
//
```

→ class Daughter: public Mother

```
public:
    Daughter() {
        cout << "Daughter ctor" << endl;
    }
};
```

```
~Daughter() {
    cout << "Daughter dtor" << endl;
}
//
```

```
//
```

Polymorphism means having many forms

## Templates, Exceptions & Files

Function and classes help to make program easier to write, safer and more maintainable.

```
int sum(int a, int b) {
    return a+b;
}
```

```
//
template <class T>
T sum(T a, T b) {
    return a+b;
}
```

```
//
int main() {
    int x=7, y=15;
    cout << sum(x, y) << endl;
}
//
```

With multiple parameter

```
template <class T, class U>
class
```

```
class template.
template <class T>
class MyClass {
    //
};
```

## Template specialization

Template specialization allows for the definition of a different implementation of a template when specific types are passed as a template argument.

Exceptions:- problems that occur in program execution are called exceptions.

throwing Exception

```
int motherAge=29;
int sonAge=30;
if (sonAge > motherAge) {
    throw "wrong age value";
}
```

working with files

Read and write the files

Standard C++ library called fstream

ofstream: creates & writes

ifstream: reads files that read info

fstream: general file stream. with ofstream that allow create, read & write.

