

C++05

* Nested Classes:

- ↳ can define a class within the definition of another class
- ↳ kinda use the base class as a namespace
(so can define it multiple times in diff classes)

ex:

```
Class Cat
```

```
{
```

```
public:
```

```
class Leg
```

```
{
```

```
}; // [...]
```

```
};
```

```
Class Dog
```

```
{
```

```
public:
```

```
class Leg
```

```
{
```

```
}; // [...]
```

```
};
```

```
int main()
```

```
{
```

```
Cat
```

```
some cat;
```

```
Cat::Leg
```

```
some cats leg;
```

```
Dog
```

```
some dog;
```

```
Dog::leg
```

```
some dogs leg;
```

* Exceptions:

- ↳ new way of handling errors (instead of returning -1, 0, etc ...)

```
#include <stdexcept>
```

```
void test1()
```

```
{
```

```
try
```

```
{
```

```
// Do stuff
```

```
if (/* Error case */)
```

```
{
```

```
throw std::exception();
```

(↳ will go to catch block)

```
}
```

```
else
```

```
{
```

```
// Do more stuff
```

```
}
```

```
} catch (std::exception e)
```

```
{
```

// Handle the error (free stuff, display error message, call function, etc.)

```
}
```

```
}
```

```
}
```