MULTIPLE INHERITANCE

Having more than one parent

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MULTIPLE INHERITANCE

CONCEPT

- A subclass has two or more superclasses
- Is not required by the object-oriented paradigm
- Is not universally supported
- Controversial

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C++

- Was included in C++ primarily to support container classes like lists, trees, etc.
- Largely replaced by templates
- Still used by I/O classes and exception handling
- Always controversial and disliked



```
Person
                        };
   List
                        };
PersonList
                        };
```

MULTIPLE INHERITANCE

```
class Person
{
};
class List
{
};
class PersonList
   : public Person, public List
{
};
```

MULTIPLE INHERITANCE: FUNCTION CALLS



```
void PersonList::function()
{
    public:
        f();
        g();
        h("Dilbert");
        h(100);
}
void PersonList::display()
{
    public:
        Person::display();
        List::display();
}
```

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THE DEADLY DIAMOND



\uparrow	instance of A	instance of A	\uparrow
D			C
\downarrow			\downarrow

