# **Method Overriding**

**What is method overriding?**

Method overriding is a feature that allows a subclass to provide the implementation of a method that overrides in the main class. This will overrides the implementation in the superclass by providing the same method name, same parameter and same return type.

Example

void add(int& a, int& b);

void add(double& a, double& b);

void add(struct bob& a, struct bob& b);

**What restrictions are placed on method overriding?**

Overridden methods must have the same name, argument list, and return type. The overriding method may not limit the access of the method it overrides. The overriding method may not throw any exceptions that may not be thrown by the overridden method.

**What is the difference between method overriding and overloading?**

Overriding is a method with the same name and arguments as in a parent, whereas overloading is the same method name but different arguments

Difference between Method Overloading and Method Overriding:

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| **Overloading** | **Overriding** |
| Overloading happens in the same class. | Method overriding occurs between two classes superclass and subclass. |
| Since it involves with only one class inheritance is not involved. | Since method overriding occures between superclass and subclass inheritance is involved. |
| IN overloading return type need not be the same. | In Overriding return type must be the same. |
| Parameters must be different when we do overloading. | Parameters must be same. |
| Static polymorphism can be achieved using method overloading | Dynamic polymorphism can be acheived using method overriding. |
| In overloading one method can’t hide the another | In overriding subclass method hides that of the superclass method. |