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/* non-virtual.cpp
   Simple program to demonstrate non-virtual overloaded member functions -
   the class type of the parameter determines which instance to call (static binding)

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*/

#include <iostream>

class One{
public:
    void Print(){std::cout <<"Print from One\n";}
};

class Two:public One{
public:
    void Print(){std::cout <<"Print from Two\n";}
};

void Print0(One one)
{
    one.Print();
}

void Print1(One& one)
{
    one.Print();
}

void Print2(One* onePtr)
{
    onePtr->Print();
}

void Print3(One one, One &oneRef, One *onePtr)
{
    one.Print();
    oneRef.Print();
    onePtr->Print();
}

int main()
{
    One one;
    Two two;

    Print0(one); // One::Print is called
    Print0(two); // One::Print is called

    Print1(one); // One::Print is called
    Print1(two); // One::Print is called

    Print3(one, one, &one); // One::Print, One::Print, One::Print
    Print3(two, two, &two); // One::Print, One::Print, One::Print

    One *onePtr;
    onePtr = new One;
    Print2(onePtr); // One::Print is called

    onePtr = new Two;
    Print2(onePtr); // One::Print is called

    return 0;
}
```

}