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HW13 (全局范围)
#include "Detector.h"
#include <iostream>

class Wrapper {
private:
    Detector detectorObject;

public:
    Wrapper() {
        std::cout << "Wrapper object created." << std::endl;
    }

    ~Wrapper() {
        std::cout << "Wrapper object destroyed." << std::endl;
    }
};

int main() {
    std::cout << "Main function start." << std::endl;
    Wrapper wrapperObject;

    std::cout << "Main function end." << std::endl;

    return 0;
}
```

```
class Wrapper {
private:
    Detector* detectorPointer;

public:
    Wrapper() : detectorPointer(nullptr) {
        detectorPointer = new Detector();
        std::cout << "Wrapper object created with dynamically allocated Detector." << std::endl;
    }

    ~Wrapper() {
        delete detectorPointer;
        std::cout << "Wrapper object destroyed." << std::endl;
    }
};

int main() {
    std::cout << "Main function start." << std::endl;

    Wrapper wrapperObject;

    std::cout << "Main function end." << std::endl;

    return 0;
}
```

```
HW13
Wrapper

#include "Detector.h"
#include <iostream>

class Wrapper {
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        detectorPointer = new Detector();
        std::cout << "Wrapper object created with dynamically allocated Detector." << std::endl;
    }

    ~Wrapper() {
        delete detectorPointer;
        std::cout << "Wrapper object destroyed." << std::endl;
    }
};

int main() {
    std::cout << "Main function start." << std::endl;

    Wrapper wrapperObject;

    std::cout << "Main function end." << std::endl;

    return 0;
}
```

```
HW13
Wrapper

#include "Detector.h"
#include <iostream>

class Wrapper {
private:
    Detector* detectorPointer;
    bool shouldDelete;
public:
    Wrapper() : detectorPointer(nullptr), shouldDelete(true) {
        detectorPointer = new Detector();
        std::cout << "Wrapper object created with dynamically allocated Detector." << std::endl;
    }

    ~Wrapper() {
        if (shouldDelete) {
            delete detectorPointer;
            std::cout << "Wrapper object destroyed and Detector deleted." << std::endl;
        }
        else {
            std::cout << "Wrapper object destroyed without deleting Detector." << std::endl;
        }
    }

    Wrapper(const Wrapper& other) : detectorPointer(other.detectorPointer), shouldDelete(false) {
        std::cout << "Wrapper object copy constructed." << std::endl;
    }
};

int main() {
    std::cout << "Main function start." << std::endl;
    Wrapper wrapperObject1;
    Wrapper wrapperObject2 = wrapperObject1;
    std::cout << "Main function end." << std::endl;
}
```

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```
HW13  Wrapper
#include "Detector.h"
#include <iostream>

class Wrapper {
private:
    Detector* detectorPointer;
public:
    Wrapper() : detectorPointer(new Detector()) {
        std::cout << "Wrapper object created with dynamically allocated Detector." << std::endl;
    }
    ~Wrapper() {
        delete detectorPointer;
        std::cout << "Wrapper object destroyed and Detector deleted." << std::endl;
    }
    Wrapper(const Wrapper& other) : detectorPointer(new Detector(*(other.detectorPointer))) {
        std::cout << "Wrapper object deep copy constructed." << std::endl;
    }
};

int main() {
    std::cout << "Main function start." << std::endl;
    Wrapper wrapperObject1;
    Wrapper wrapperObject2 = wrapperObject1;
    std::cout << "Main function end." << std::endl;
    return 0;
}
```