

# Book書籍類別範例

## 簡介

Book類別是用以對「真實世界(real world)」中的「書籍」進行「抽象對映(mapping abstraction)」的定義。

## Data Members

- [-] title : string
- [-] author : string
- [-] ISBN : string

## Member Functions

- [+] setTitle(string t) : void -> setter for title
- [+] setAuthor(string a) : void -> setter for author
- [+] setISBN(string i) : void -> setter for ISBN
- [+] getTitle() : string -> getter for title
- [+] getAuthor() : string -> getter for Author
- [+] getISBN() : string -> getter for ISBN
- [+] showInfo(): void -> print out its information

## Constructor and Destructor

- Book() -> set default values of title and author as “unknown”, and set ISBN as “undefined”
- Book(string t, string a, string isbn) -> set title, author and ISBN as t, a and isbn
- ~Book() -> print out [author]'s book has been deleted!

## Class Definition

```
class Book
{
    private:
        string title;
        string author;
        string ISBN;
    public:
        void setTitle(string t) {title=t;}
```

```
void setAuthor(string a) {author=a;}
void setISBN(string i) {ISBN=i;}
string getTitle() {return title;}
string getAuthor() {return author;}
string getISBN() {return ISBN;}
Book()
{
    title="unknown";
    author="unknown";
    ISBN="undefined";
}
Book(string t, string a, string isbn)
{
    title=t;
    author=a;
    ISBN=isbn;
}
~Book()
{
    cout << author << "'s book has been deleted!" << endl;
}
void showInfo()
{
    cout << title << " (" << author << ")" << ", ISBN:" << ISBN <<
endl;
}
};
```

## Example

```
Book b1,b2;
b1.setTitle("Programming in C");
b1.setAuthor("Jun Wu");
b1.setISBN("987-123-456-1");
b2=b1;
b2.setTitle("Smart Programming");
b2.setISBN("987-111-222-3");

cout << b1.getTitle() << "(" << b1.getAuthor() << "), " << b1.getISBN() <<
endl;
cout << b2.getTitle() << "(" << b2.getAuthor() << "), " << b2.getISBN() <<
endl;
```

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