オブジェクト指向プログラミング No.10

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ソースコード

MultilingualBook.java

class BookInfo{

protected String author;

protected String title;

protected String publisher;

protected int pYear;

BookInfo(){}

BookInfo(String author, String title, String publisher, int pYear){

this.author = author;

this.title = title;

this.publisher = publisher;

this.pYear = pYear;

}

void setAuthor(String author){

this.author = author;

}

void setTitle(String title){

this.title = title;

}

void setPublisher(String publisher){

this.publisher = publisher;

}

void setPYear(int pYear){

this.pYear = pYear;

}

String getAuthor(){

return author;

}

String getTitle(){

return title;

}

String getPublisher(){

return publisher;

}

int getPYear(){

return pYear;

}

void showBook(){

System.out.println("著者名: " + author);

System.out.println("題名: " + title);

System.out.println("出版社: " + publisher);

System.out.println("出版年: " + pYear);

}

}

class MultilingualBook extends BookInfo {

private String language;

private boolean trans = false;

private String translater;

private String transBook;

private String transPub;

MultilingualBook(){}

MultilingualBook(String author, String title, String publisher, int pYear, String language, boolean trans, String translater, String transBook, String transPub){

super(author, title, publisher, pYear);

this.language = language;

if (trans){

this.trans = trans;

this.translater = translater;

this.transBook = transBook;

this.transPub = transPub;

}

}

void setlanguage(String language){

this.language = language;

}

void settrans(boolean trans){

this.trans = trans;

}

void settranslater(String translater){

this.translater = translater;

}

void settransBook(String transBook){

this.transBook = transBook;

}

void settransPub(String transPub){

this.transPub = transPub;

}

String getlanguage(){

return language;

}

boolean gettrans(){

return trans;

}

String gettranslater(){

return translater;

}

String gettransBook(){

return transBook;

}

String gettransPub(){

return transPub;

}

void showBook(){

super.showBook();

System.out.println("言語: " + language);

System.out.println("訳書の有無: " + trans);

System.out.println("訳者名: " + translater);

System.out.println("訳書名: " + transBook);

System.out.println("訳書出版社: " + transPub);

}

}

mixTester.java

public class mixTester{

public static void main(String[] args){

BookInfo[] a = {new MultilingualBook("Lewis Carroll", "Alice’s Adventures in Wonderland", "MacmillanPublishers", 1865, "英語", true, "高山宏", "不思議の国のアリス", "東京図書"),

new BookInfo("夏目漱石", "坊ちゃん", "春陽堂", 1907), new MultilingualBook("Albert Camus", "L'Etranger", "Edications Galimard", 1942, "仏語", true, "窪田啓作", "異邦人", "新潮文庫")};

for (int i = 0; i < a.length; i++){

if (a[i] instanceof MultilingualBook){

((MultilingualBook)a[i]).showBook();

} else {

a[i].showBook();

}

}

}

}

実行結果

著者名: Lewis Carroll

題名: Alice’s Adventures in Wonderland

出版社: MacmillanPublishers

出版年: 1865

言語: 英語

訳書の有無: true

訳者名: 高山宏

訳書名: 不思議の国のアリス

訳書出版社: 東京図書

著者名: 夏目漱石

題名: 坊ちゃん

出版社: 春陽堂

出版年: 1907

著者名: Albert Camus

題名: L'Etranger

出版社: Edications Galimard

出版年: 1942

言語: 仏語

訳書の有無: true

訳者名: 窪田啓作

訳書名: 異邦人

訳書出版社: 新潮文庫