**CS602 – Fall 2021**

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Homework 1

**Due date: Sunday, September 19, 2021, 11:59pm**

# Instructions:

* For each day of late submission, 5 points will be deducted.
* After two days, no more submission is allowed.
* You must submit through Canvas.
* Keep this file intact, copy your solution codes from your IDE and paste at the bottom of the file under ‘Answer’. Submit this word document with your codes. Do not change the format of the file to pdf or .rar or anything else.

**Reminder:** [**Academic Integrity**](https://www.njit.edu/dos/code-student-conduct-article-11-university-policy-academic-integrity)policy is strictly implemented for all your submissions.

# Learning Objectives:

* Classify various visibility scenarios and review method overriding process.

Design and implement a set of classes that define various types of reading material: books, novels, magazines, technical journals, textbooks, and so on. Include data values that describe various attributes of the material, such as number of pages and the names of the primary characters. Include methods that are named appropriately for each class and that print an appropriate message. Create a 'main' driver class to instantiate and exercise several of the classes.

Your solutions will be in different files. Copy and paste as instructed below:

# Answer:

### **Book.java:**

**package** com.njit.java.week1;

**public** **class** Book {

**public** String book1Title;

**public** String book1Author;

**public** String book1Genre;

**public** String book1Characters;

**public** String book2Title;

**public** String book2Author;

**public** String book2Genre;

**public** String book2Characters;

**public** Book() {

**this**.setBook1Title("The Lord of the Rings");

**this**.setBook1Author("J.R.R. Tolkien");

**this**.setBook1Genre("High fantasy; Adventure");

**this**.setBook1Characters("Gandalf, Gollum, Aragorn, Sauron, Frodo Baggins, MORE..");

**this**.setBook2Title("Harry Potter and the Philosopher's Ston");

**this**.setBook2Author("J.K. Rowling");

**this**.setBook2Genre("Fantasy Fiction");

**this**.setBook2Characters("Harry Potter, Hermione Granger, Lord Voldemort, MORE..");

}

**public** String getBook1Title() {

**return** book1Title;

}

**public** **void** setBook1Title(String book1Title) {

**this**.book1Title = book1Title;

}

**public** String getBook1Author() {

**return** book1Author;

}

**public** **void** setBook1Author(String book1Author) {

**this**.book1Author = book1Author;

}

**public** String getBook1Genre() {

**return** book1Genre;

}

**public** **void** setBook1Genre(String book1Genre) {

**this**.book1Genre = book1Genre;

}

**public** String getBook1Characters() {

**return** book1Characters;

}

**public** **void** setBook1Characters(String book1Characters) {

**this**.book1Characters = book1Characters;

}

**public** String getBook2Title() {

**return** book2Title;

}

**public** **void** setBook2Title(String book2Title) {

**this**.book2Title = book2Title;

}

**public** String getBook2Author() {

**return** book2Author;

}

**public** **void** setBook2Author(String book2Author) {

**this**.book2Author = book2Author;

}

**public** String getBook2Genre() {

**return** book2Genre;

}

**public** **void** setBook2Genre(String book2Genre) {

**this**.book2Genre = book2Genre;

}

**public** String getBook2Characters() {

**return** book2Characters;

}

**public** **void** setBook2Characters(String book2Characters) {

**this**.book2Characters = book2Characters;

}

}

### **Magazine.java:**

**package** com.njit.java.week1;

**public** **class** Magazine {

**public** Magazine(String title, String publisher, String editor) {

System.***out***.println("Title: " + title);

System.***out***.println("Publisher: " + publisher);

System.***out***.println("Editor: " + editor + "\n");

}

**public** **void** magazinesDisplay(String title, String publisher, String editor) {

System.***out***.println("Title: " + title);

System.***out***.println("Publisher: " + publisher);

System.***out***.println("Editor: " + editor + "\n");

}

}

### **Novel.java:**

**package** com.njit.java.week1;

**public** **class** Novel {

**public** Novel(String title, String genre, String editedBy, String directedBy) {

novelStore(title, genre, editedBy, directedBy);

}

**private** **void** novelStore(String title, String genre, String editedBy, String directedBy) {

System.***out***.println("Title: " + title);

System.***out***.println("Genre: " + genre);

System.***out***.println("Edited By: " + editedBy);

System.***out***.println("Directed By: " + directedBy + "\n");

}

}

### **ReadingClub.java:**

**package** com.njit.java.week1;

**public** **class** ReadingClub {

**public** ReadingClub() {

System.***out***.println("###############################################");

}

**public** **void** readingMaterials() {

System.***out***.println("This is the famous reading club in the world.");

System.***out***.println("U can find the following Materials....!!!");

}

}

### **ReadingMaterial.java:**

**package** com.njit.java.week1;

**public** **class** ReadingMaterial **extends** ReadingClub {

**public** **void** readingMaterials() {

System.***out***.println("\n1. TextBooks");

System.***out***.println("2. Novels");

System.***out***.println("3. Magazines");

System.***out***.println("4. Books");

}

}

### **TextBook.java:**

**package** com.njit.java.week1;

**public** **class** TextBook {

**private** String title;

**private** String author;

**private** String editon;

**private** String noOfPages;

**public** TextBook(String title, String author, String edition, String noOfPages) {

**this**.title = title;

**this**.editon = edition;

**this**.noOfPages = noOfPages;

**this**.author = author;

textBooksDisplay();

}

**private** String getTitle() {

**return** title;

}

**private** **void** setTitle(String title) {

**this**.title = title;

}

**private** String getAuthor() {

**return** author;

}

**private** **void** setAuthor(String author) {

**this**.author = author;

}

**private** String getEditon() {

**return** editon;

}

**private** **void** setEditon(String editon) {

**this**.editon = editon;

}

**private** String getNoOfPages() {

**return** noOfPages;

}

**private** **void** setNoOfPages(String noOfPages) {

**this**.noOfPages = noOfPages;

}

**void** textBooksDisplay() {

System.***out***.println("Title: "+ getTitle());

System.***out***.println("Author: "+getAuthor());

System.***out***.println("Edition: "+getEditon());

System.***out***.println("Pages: "+getNoOfPages()+"\n");

}

}

### **Main.java:**

**package** com.njit.java.week1;

**public** **class** Main {

**public** **static** **void** main(String[] args) {

ReadingClub readingClub = **new** ReadingClub();

readingClub.readingMaterials();

ReadingClub readingClub2 = **new** ReadingMaterial();

readingClub2.readingMaterials();

System.***out***.println("\n ...... TEXT BOOKS ......\n");

TextBook textBook = **new** TextBook("Java Software Solutions", "John Lewis and William Loftus", "8th Edition",

"210");

TextBook textBook2 = **new** TextBook("Head First Java: A Brain-Friendly Guide", "Kathy Sierra and Bert Bate",

"2nd Edition", "240");

System.***out***.println("\n ...... Novels ......\n");

Novel novel = **new** Novel("Anna Karenina", "Romance/Drama", "Robert Kern", "Clarence Brown");

Novel novel2 = **new** Novel("One Hundred Years of Solitude genre", "Magical Realism",

"Sudamericana, Harper & Row ", "clint eastwood");

System.***out***.println("\n ...... Magazines ......\n");

Magazine magazine = **new** Magazine("The New Yorker Magazine", "Condé Nast", " David Remnick");

magazine.magazinesDisplay("Vogue Magazine", "Condé Nast", "Anna Wintour");

System.***out***.println("\n ...... Books ......\n");

Book book = **new** Book();

System.***out***.println("Title: " + book.getBook1Title());

System.***out***.println("Genre: " + book.getBook1Author());

System.***out***.println("Edited By: " + book.getBook1Genre());

System.***out***.println("Directed By: " + book.getBook1Characters() + "\n");

System.***out***.println("Title: " + book.getBook2Title());

System.***out***.println("Genre: " + book.getBook2Author());

System.***out***.println("Edited By: " + book.getBook2Genre());

System.***out***.println("Directed By: " + book.getBook2Characters() + "\n");

System.***out***.println("Thanks for visiting the famous reading club in the world. Have a Good Day !!!");

}

}