**Unit 5 Chapter 6 Worksheet: Algorithm Workbench Challenge 2**

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CSCI 421: Java Programming Principles I

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**Look at the following partial class definition, and then respond to the question that follow it:**

**Code:**

**public class Book**

**{**

**private String title;**

**private String author;**

**private String publisher;**

**private int copiesSold;**

**}**

1. **Write a constructor for this class. The constructor should accept an argument for each of the fields.**

*/\*\*  
 Constructor* ***@param*** *t The title of the book* ***@param*** *a The author of the book* ***@param*** *p The publisher of the book* ***@param*** *sold The number of copies sold  
 \*/*public Book (String title, String author, String publisher, int copiesSold)  
{  
 title = t;  
 author = a;  
 publisher = p;  
 copiesSold = sold;  
}

1. **Write accessor and mutator methods for each field.**

*/\*\*  
 \* setTitle method  
 \** ***@param*** *t The title of the book  
 \*/*public void setTitle(String t)  
{  
 title = t;  
}  
  
*/\*\*  
 \* setAuthor method  
 \** ***@param*** *a The author of the book  
 \*/*public void setAuthor(String a)  
{  
 author = a;  
}  
  
*/\*\*  
 \* setPublisher method  
 \** ***@param*** *p The publisher of the book  
 \*/*public void setPublisher(String p)  
{  
 publisher = p;  
}  
  
*/\*\*  
 \* setCopiesSold method  
 \** ***@param*** *sold The number of copies sold  
 \*/*public void setCopiesSold(int sold)  
{  
 copiesSold = sold;  
}  
  
*/\*\*  
 \* getTitle method  
 \** ***@return*** *The title of the book  
 \*/*public String getTitle()  
{  
 return title;  
}  
  
*/\*\*  
 \* getAuthor method  
 \** ***@return*** *The author of the book  
 \*/*public String getAuthor()  
{  
 return author;  
}  
  
*/\*\*  
 \* getPublisher method  
 \** ***@return*** *The publisher of the book  
 \*/*public String getPublisher()  
{  
 return publisher;  
}  
  
*/\*\*  
 \* getCopiesSold method  
 \** ***@return*** *The number of copies sold  
 \*/*public int getCopiesSold()  
{  
 return copiesSold;  
}

1. **Draw a UML diagram for the class, including the methods you have written.**

|  |
| --- |
| **Book** |
| **- title : String**  **- author : String**  **- publisher : String**  **- copiesSold : int** |
| **+ Book(t : String, a : String, p : String, sold : int)**  **+ setTitle(t : String) : void**  **+ setAuthor(a : String) : void**  **+ setPublisher(p : String) : void**  **+ setCopiesSold(sold : int) : void**  **+ getTitle() : String**  **+ getAuthor(): String**  **+ getPublisher(): String**  **+ getCopiesSold(): int** |