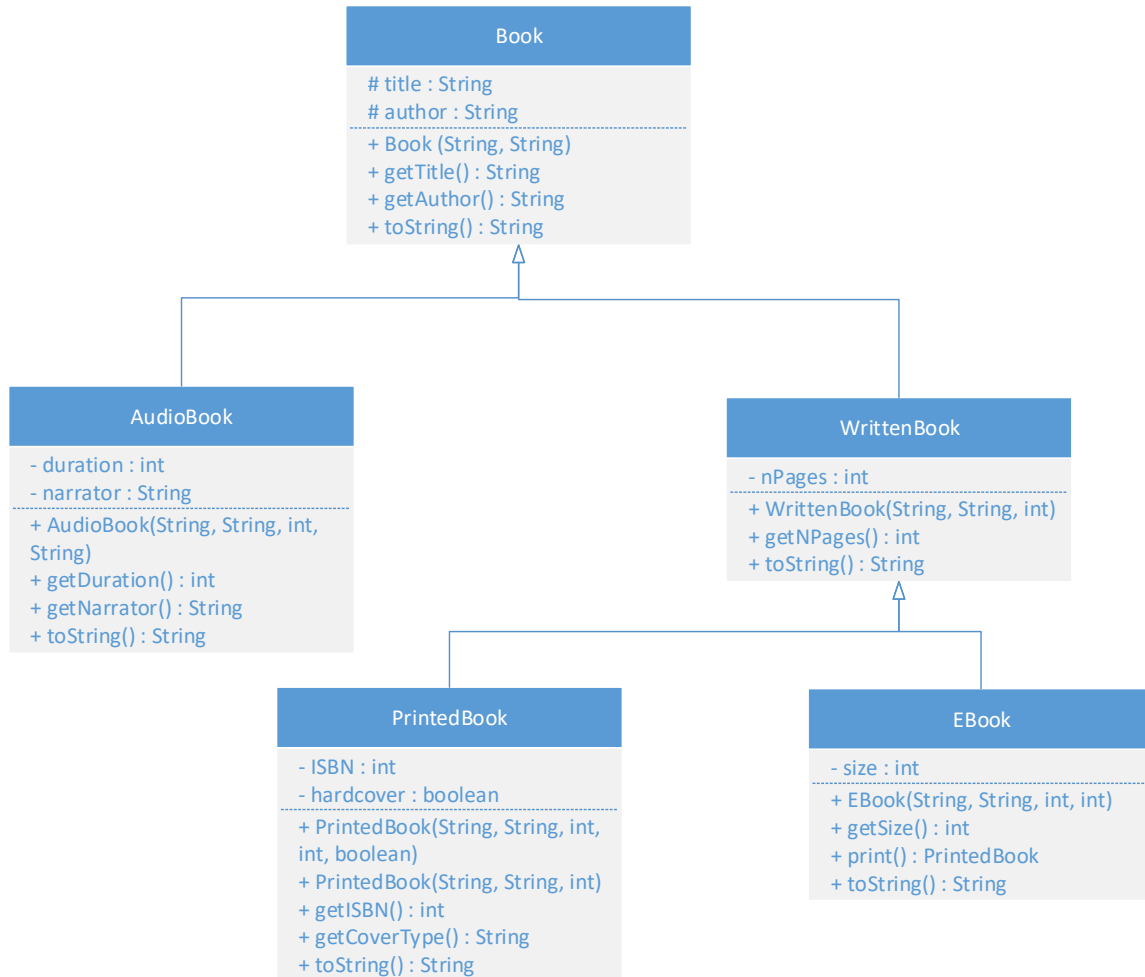


King Saud University
College of Computer and Information Sciences
Department of Computer Science
CSC113 – Computer Programming II – Lab: Inheritance – Fall 2019



Book class:

Attributes:

- title: the title of the book
- author: the author of the book

Methods:

- Book(title: String, author: int): constructor
- getTitle(): this method returns the title of the book
- getAuthor(): this method returns the author of the book
- toString(): returns the object's info in this format: 'Title: *title*, Author: *author*'

AudioBook class:

Attributes:

- duration: the length of the audio file in minutes
- narrator: the name of the person reading the book

Methods:

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- AudioBook(title: String, author: String, duration: int, narrator: String): constructor
- getDuration(): this method returns the duration of the audio book
- getNarrator(): this method returns the name of the narrator
- toString(): returns the object's info in this format: 'Title: *title*, Author: *author*, Format: Audio, Duration: *duration*, Narrator: *narrator*'

WrittenBook class:

Attributes:

- nPages: the number of pages of the book

Methods:

- WrittenBook(title: String, author: String, nPages: int): constructor
- getNPages(): this method returns the number of pages of the book
- toString(): returns the object's info in this format: 'Title: *title*, Author: *author*, Format: Written, number of pages: *nPages*'

PrintedBook class:

Attributes:

- ISBN: the International Standard Book Number of the book
- hardcover: true if the book is hardcover, false otherwise

Methods:

- PrintedBook(title: String, author: String, nPages: int, ISBN: int, hardcover: boolean): constructor
- PrintedBook(title: String, author: String, nPages: int): constructor that initializes ISBN to 0 and hardcover to false
- getISBN(): this method returns the ISBN of the book
- getCoverType(): returns a string specifying if the book is hardcover or paperback
- toString(): returns the object's info in this format: 'Title: *title*, Author: *author*, Format: Written, number of pages: *nPages*, Printed, ISBN: *ISBN*, hardcover/paperback'

EBook class:

Attributes:

- size: the size of the ebook in MBs

Methods:

- EBook(title: String, author: String, nPages: int, size: int): constructor
- getSize(): this method returns the size of the ebook
- print(): this method returns the current Ebook as an object of type PrintedBook
- toString(): returns the object's info in this format: 'Title: *title*, Author: *author*, Format: Written, number of pages: *nPages*, Ebook, size: *sizeMB*'

Exercise: Translate into Java-code the previous classes, and write a main method that tests all the previous functionalities.