

# Challenge OOP programming - Amazon Book App

## Designing and creating a real world class



Amazon typically stores (at least) the following data for each book in its store ..



### Product details

**Format:** Kindle Edition

**File Size:** 23823 KB

**Print Length:** 445 pages

**Publisher:** Transworld Digital; 01 edition (3 Oct. 2019)

**Sold by:** Amazon Media EU S.à r.l.

**Language:** English

**ASIN:** B07MCVWDXK

**Text-to-Speech:** Enabled ☒

**X-Ray:** Enabled ☒

**Word Wise:** Enabled

**Enhanced Typesetting:** Enabled ☒

**Average Customer Review:** ★★★★★ ☐ 76 customer reviews

As part of an application you have be tasked to design a Java class to represent the following selected data from an Amazon book ...

***title, author, price, pages (number of), ISBN10, average customer rating, language***

Your challenge ...

1. Create a UML class diagram to represent the data to be represented
2. Code that class – create a default and a constructor that accepts all arguments.
3. Test that class with actual data (two books) **Test data 1** [\\_\(https://www.amazon.co.uk/Body-Guide-Occupants-Bill-Bryson/dp/0857522418/ref=tmm\\_pap\\_swatch\\_0?encoding=UTF8&qid=&sr=\)](https://www.amazon.co.uk/Body-Guide-Occupants-Bill-Bryson/dp/0857522418/ref=tmm_pap_swatch_0?encoding=UTF8&qid=&sr=) and **Test data 2** [\\_\(https://www.amazon.co.uk/Ulysses-Wordsworth-Classics-James-Joyce/dp/1840226358/ref=sr\\_1\\_1?\)](https://www.amazon.co.uk/Ulysses-Wordsworth-Classics-James-Joyce/dp/1840226358/ref=sr_1_1?)

[crid=21ZOTAY969UTL&keywords=james+joyce+ulysses&qid=1573898228&s=books&srefix=james+joyce+u%2Cstripbooks%2C155&sr=1-1](https://www.amazon.co.uk/?ref=astore_dpnav&pf_rd_p=21ZOTAY969UTL&keywords=james+joyce+ulysses&qid=1573898228&s=books&srefix=james+joyce+u%2Cstripbooks%2C155&sr=1-1)

4. Write a method with the test class that will compare two books and output to screen the longest read... (based on number of pages)

**Solution** (note the use of the auto generated **toString()** method)

**UML example** (some sensible variations could be used here, for example rating could be a double etc..) > **UML.GIF** (<https://canvas.qub.ac.uk/courses/11041/files/1074258/download?wrap=1>)

↓ ([https://canvas.qub.ac.uk/courses/11041/files/1074258/download?download\\_frd=1](https://canvas.qub.ac.uk/courses/11041/files/1074258/download?download_frd=1))

**Java Book representation** > **AmazonBook.java**

(<https://canvas.qub.ac.uk/courses/11041/files/1074251/download?wrap=1>)\_ ↓

([https://canvas.qub.ac.uk/courses/11041/files/1074251/download?download\\_frd=1](https://canvas.qub.ac.uk/courses/11041/files/1074251/download?download_frd=1))

**Test class** > **AmazonWebApp.java**

(<https://canvas.qub.ac.uk/courses/11041/files/1074252/download?wrap=1>)\_ ↓

([https://canvas.qub.ac.uk/courses/11041/files/1074252/download?download\\_frd=1](https://canvas.qub.ac.uk/courses/11041/files/1074252/download?download_frd=1))