Inheritance in CS994 Coursework

I chose class Resource as my superclass, with class Book and class ElectronicResource as my subclasses as I believe the latter are both strongly coupled to class Book, and can be considered specialised versions of class Book.

I thought Resource was appropriate as a superclass as both physical and electronic resources come under the wider heading of resources available in a library. This points towards the “is a” relationship between class Book/class Electronic Resource and class Resource. Further, class Book and class ElectronicResource shared a lot of the same data fields, such as title and author. There would also be both identical and similar methods in class Book and class ElectronicResource if they were set up with inheritance which I do not consider to be efficient programming. As such, I found it best to have class Book and class ElectronicResource extend class Resource.

Further, this inheritance relationship means that when I create a Library Member object, it is possible to add both Book objects and ElectronicResource objects to the same collection in the Library Member object, with the optional choice to view these separated out if I wish to. I considered this a better option as opposed to having them split up as default.