

Write a couple of paragraphs describing the inheritance requirements of your system, and the rationale behind your choice.

As the system was required to have one superclass and two subclasses, the *Resource class* was implemented.

Both the *ElectronicResource class* and *Book class* inherits from this class. The reasoning for the implementation of inheritance in such a way is twofold:

1. Many of the data fields and methods constructed in the *Book* and *ElectronicResource classes* are one and the same and therefore for the clarity and conciseness of the Library System it is efficient to add an additional class from which both inherit.
2. The catalogue *Library class* data field stores all resources in one ArrayList regardless of whether the object is the instance of the *Book* or *ElectronicResource class* therefore it is practical to implement a class that makes use of the similarities between these subclasses and form a superclass.

It is worth noting that pragmatically the *Resource class* is not intended to be instantiated, it only fills the purpose of an extension of the other two classes due to the polymorphic qualities of inheritance.