State UML diagram

Exercise

We are designing system supporting the work of the library. Each bought copy of the book before the making accessible by the borrowers is elaborated (number, securities, signs, ...). Rental period may be extended only before the loan deadline, for a total duration not be longer than one year. Not returning the book in time makes the necessary to pay the penalty for each day of the retention copy, the penalty shall be calculated in time return the book. If the borrower loses the book, at the time of the report that a penalty fee will be charged. The payment ends the life of the copy in the library. Lost books fall out of the pool made available for loans. Each time when the book is given back by borrower a librarian checked its condition and if it detects damage, puts a copy of the damaged books. If a repair of the copy by a bookbinder is impossible or unreasonable then the copy is withdrawn. Design state diagram for the objects of class Copy.

Proposition of solution