# LAB6

Develop Library management OOP application with following components and requirements

1.  **Create MVC console application in NetBean:**
    a.  Define class Book with following attributes and methods: **(2 marks)**
        + BookID, Book Title, Author, Date published
        + Constructors, get/set(), toString()
    b.  Define class Library with following attributes and methods: **(2.5 marks)**
        + List of Book
        + Read text file to load data for Library – lib.txt is provided
        + Search book by different criteria
        + Print any List of Book
        + Add new Book from console
    c.  Develop Library Management class for application **(2.5 marks)**
        + Application menu for application include: Display all books, Book Search, Add new Book, book statistical has the same author, sort by Date published
        Hint: An abstract Menu class is provided for use in the application. Override method excecute()
        + Method for seaching book with searching menu.

2.  **Technical requirements(3 marks)**:
    + Create package **model** for Book and Library class.
    **+** Create package **controller** for LibraryManagement class.
    + Create package **view** for Menu class.
    + Validate for CusId has 4characters and starts with "B" (Example: B001). Error message: "The CusId does not accept the format (fading B and has 4 keys)". (1 mark)
    +Validate for DatePublished correct format dd/mm/yyyy . Error message: " DatePublished must be in the correct Date format: dd/mm/yyyy"". (1 mark)
    + Using the comparable, comparator or predicate interface for sort and search function
    **+** User interface as sample images below

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Library Management
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1.List all books
2.Search book
3.Add new Book
4.Exit
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Enter selection..
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When choose search book:

```
Book Searching
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1.Find by BookID
2.Find by Title
3.Find by Author
4.Find by Year of publishing
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Enter selection..3
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```
Enter Author :Cays
List of Books

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Book{B0001 - Java Programming - Cays Horstman - 2020}
Book{B0003 - NodeJS for Beginner - Cays Horstman - 2019}

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Total : 2 books.
```

**Notice:**

- Student must strictly follow all requirements as describe above for marking
- interface is only for reference on how to print to the screen, you need to read carefully and closely follow the exam requirements
- Any modification the requirement detail is not allowed and will get no mark!