

# **A WEB BASED API FOR SECOND HAND BOOKS RESERVATION - NEXEN ECOSYSTEM**

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## **SYNOPSIS**

Nowadays, there are many ways in which we can increase the reusability of any things. Similarly, to establish the contacts between students in an organization and to increase the reusability of the materials and books, a web based API is developed with various features of buying and selling used books.

Even though many seniors wish to help their juniors with their materials and guiding, there is no platform available for them to achieve this. To overcome this, an open source platform is developed. In this platform, any students can register with their register number and then login with their passwords. After that they are provided with various options like sell books, buy books and so on. B-tree indexing method is used so as to easily fetch the book in short time which the user is searching. The Turbo Boyer Moore algorithm is implemented which efficiently perform pattern matching and retrieve data from database. NEXEN is an ecosystem where all the current applications of BNY Mellon are moved into which eases out the client in using these applications.

The ultimate aim of this project is to build a WAR file which resides in tomcat server. Whenever any organization needs the functionality of this API, by providing the URL of this API and authentication, they can access and make use of this functionality. The challenging part after developing the application is to move into NEXEN platform which helps the end user to use other similar applications signed in smoothly.

**Signature of the Guide**