**NEW AND OLD BOOK PURCHASE SYSTEM WEB APPLICATION USING FAST API**

Rahul Suregaonkar1, a, Mahalakshmi1, b,

1 Department of Mathematics, School of Applied Sciences, REVA University, Bengaluru, Karnataka, India.

Email ID: [rahulsuregaonkar@gmail.coma,](mailto:girishrug123@gmail.coma) [mahalakshmi@gmail.comb](mailto:mahalakshmi@gmail.comb%20) .

**Abstract**

Online bookstore web application provides an online platform for customers to buy books online and sell the old books in the same web application. Latest framework Fast-API is used to design the web application, which has better performance when compared to all traditional API’s. The web application is built on Asynchronous ServerGateway Interface (ASGI), where the response time of requests will be minimum. Implementation of latest Technologies improves the user interface of the web application. The web application can not only reduce costs, save time, space, to bring convenience to everyone, but also promote the development of the logistics industry. Basically, this project describes the new methodologies for the development of web services.

**Keywords**

Online bookstore, Fast-API, Asynchronous ServerGateway Interface (ASGI).

**1. Introduction**

An Online bookstore web application is a trading platform for books online, customers can connect to the network through their computer and browse for online booksellers, where they can check the book information, price, content, and many more. If they need to purchase a book, they can register their name, address, and email, customers can log into the web application and search for the books they need, they can select their books, submit orders and pay to complete the order process, to achieve the online transaction. Customers can re-sell the same book that they have purchased before from the same web application. The online second-hand book shop is just one of them trying to use the power of the internet and technology to develop a website that can make book recycling and sales easier. In this project the implementation of new technologies for the front-end like CSS3 and HTML5, to improve user friendly experience for the customers and implementation of technologies like JSP, programming languages such as JavaScript, python for back-end. Development of a web application using the new Fast-API framework gives the web application more stability and a fast interface, Easy integration with Databases, and high-level documentation. If the application needs recommendation systems with an Artificial Intelligence Model (AI), Fast-API helps to get request and response time to be minimum since both the web application and AI model work on the same framework. The books are classified into many categories, which will be useful to search the book on online bookstore.

The Databases are managed using Postgres SQL and mongo-dB for the client information, address and profile.

# 2. Research Background

Han et al. [1] introduces the online bookstore web application using the ASP.NET framework which has an MVC (Model View Controller) pattern-based way to build a dynamic website. New features were implemented such as providing new book recommendations, best seller lists, reader comments, author interviews, expert comments, etc. Chatbox was implemented to provide direct communication with the bookstore. Shyam et al. [3] developed a web application for a resource-sharing platform named Shreic (Sharing Resources in Campus) using the Django framework. Appropriate Software Development Life Cycle (SDLC) Model and Testing techniques have been used in the development process.Sawant et al. [6] developed a web application using the Django framework a modern Python web framework that redefined web development in the Python world. A full stack approach, pragmatic design, and high-level documentation. Implemented a website model with the help of which skilled people can be able to update their skills and people who want skilled workers can find them from the same digital platform as well. The backend has been developed in Python, jinja2, and SQLite. Claims that Django is one of the best frameworks for easy and rapid web development.Shelke et al. [8] have worked on the online bookstore web application which was developed using PHP as an open-source framework and My SQL database which gives a wide variety of options to update the website with many possible features and helps in rapid application development. In view of the above literature review, according to my knowledge, no studies were initiated for the implementation of new web service technologies like Fast-API where the server response will be minimal on the web application.

# 3. Objective