

SKILL DEVELOPMENT COURSE

(NODE JS)

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B. Tech II Year II Semester- CSE-DS

Course Code:

Course Outcomes: At the end of the course, the student will be able to,

1. Build a custom website with HTML, CSS, and Bootstrap and little JavaScript.
2. Demonstrate Advanced features of JavaScript and learn about JDBC
3. Develop Server – side implementation using Java technologies like servlet
4. Develop the server – side implementation using Node JS.
5. Design a Single Page Application using React.

Exercises:

1. Build a responsive web application for shopping cart with registration, login, catalog and cart pages using CSS3 features, flex and grid.
2. Make the above web application responsive web application using Bootstrap framework.
3. Use JavaScript for doing client – side validation of the pages for the above 2 web applications.
4. Develop a java stand alone application that connects with the database (Oracle / mySql) and perform the CRUD operation on the database tables.
5. Create an xml for the bookstore. Validate the same using both DTD and XSD.
6. Design a controller with servlet that provides the interaction with web application
7. Maintaining the transactional history of any user is very important. Explore the various session tracking mechanism using Cookies
8. Maintaining the transactional history of any user is very important. Explore the various session tracking mechanism using Sessions.
9. Develop an express web application that can interact with REST API to perform CRUD operations on student data
10. Create a react application for the student management system having registration, login, contact, about pages and implement routing to navigate through these pages.
11. Create a custom server using http module and explore the other modules of Node JS like OS, path, event.

Text Books:

1. Jon Duckett, Beginning HTML, XHTML, CSS, and JavaScript, Wrox Publications, 2010
2. Bryan Basham, Kathy Sierra and Bert Bates, Head First Servlets and JSP, O'Reilly Media, 2nd Edition, 2008.
3. Vasan Subramanian, Pro MERN Stack, Full Stack Web App Development with Mongo, Express, React, and Node, 2nd Edition, A Press.