



# Web Technology

Course Code: 22UPCSC405

Credits: (3-0-0) 3

Semester: IV

Division: A & B

Semester Duration: Feb2024-June2024

Academic Year: 2023-24

Google classroom code: **nqvmh7s**



# Contents at a Glance

## UNIT-1 1.1 Introduction to Web



## UNIT-2 2.1 Introduction to CSS 2.2 Advanced CSS



## UNIT-3 3.1 Introduction to JavaScript



## UNIT-4 4.1 Introduction to PHP



## UNIT-5 5.1 Introduction to Web 2.0 5.2 Introduction to AJAX 5.3 Future of Web



# Content

|        |                                                                                                                                                                                       |        |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| UNIT-1 | <b>1.1 Introduction to Web:</b> WWW1.0, HTML, HTML5, XHTML, XML, XSD, DTD, DOM- XML.                                                                                                  | -08Hr  |
| UNIT-2 | <b>2.1 Introduction to CSS:</b> What is CSS, CSS Syntax, Location of Styles, Selectors, The Cascade: How Styles Interact, The Box Model, CSS Text Styling.                            | -04Hrs |
|        | <b>2.2 Advanced CSS:</b> Layout, Normal Flow, Positioning Elements, Floating Elements, Constructing Multicolumn Layouts, Approaches to CSS Layout, Responsive Design, CSS Frameworks. | -04Hrs |
| UNIT-3 | <b>3.1 Introduction to JavaScript:</b> Basics, Strings, Arrays, Functions, Objects in JavaScript, building simple applications using JavaScript and HTML.                             | -08Hrs |
| UNIT-4 | <b>4.1 Introduction to PHP:</b> Introduction to PHP, Datatypes, Control Statements, Loops, Functions, Embedding PHP in HTML & MySQL.                                                  | -08Hrs |

# Content

## UNIT-5

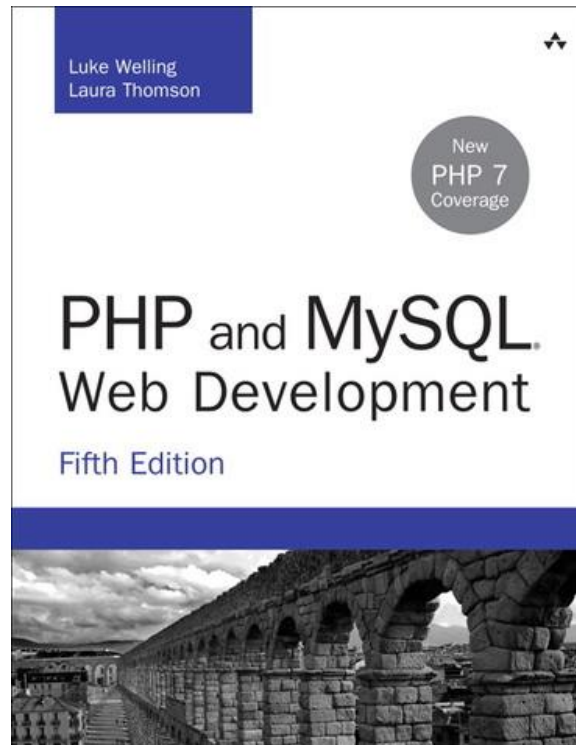
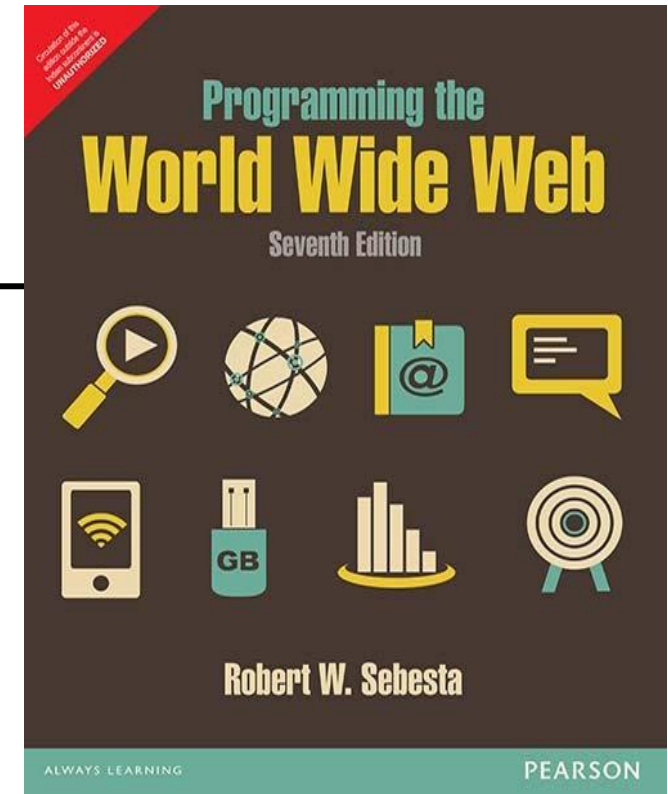
**5.1 Introduction to Web 2.0:** Overview of WWW 2.0, JSON, Web Services - SOAP & WSDL, RESTful. **-03Hrs**

**5.2 Introduction to AJAX:** Basics of AJAX, Asynchronous and Synchronous message transformation. **-03Hrs**

**5.3 Future of Web:** Overview of Semantic Web, Applications of Semantic Web, Virtual Reality, Web **-01Hrs**

# Books

1. Robert W. Sebesta, **Programming the World Wide Web**, 7/E Pearson Education, 2012.

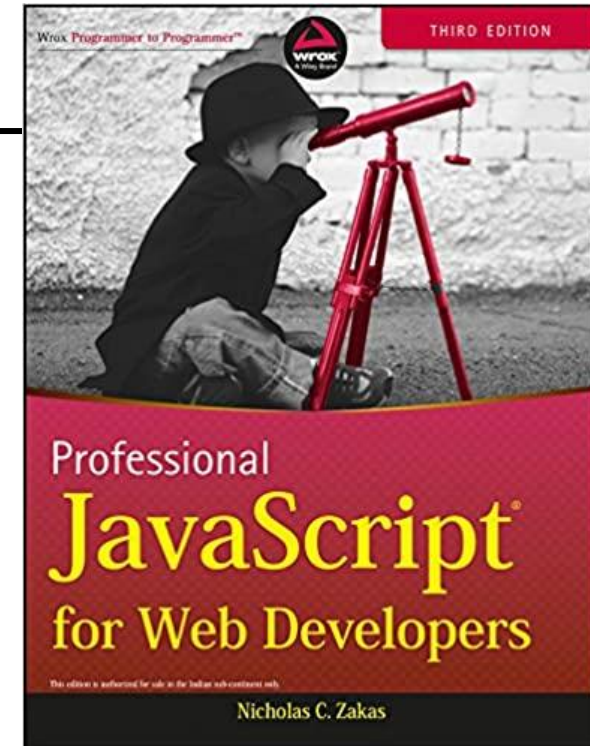
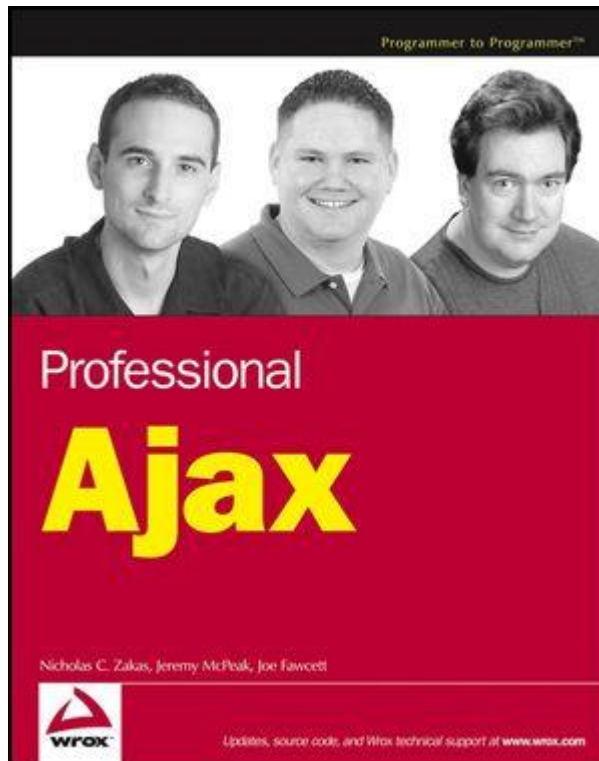


2. Luke Welling, Laura Thomson, **“PHP and MySQL Web Development”**, 5th Edition, Pearson Education, 2016.

# Books

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3. Nicholas C Zakas, “**Professional JavaScript for Web Developers**”, 3rd Edition, Wrox/Wiley India, 2012.



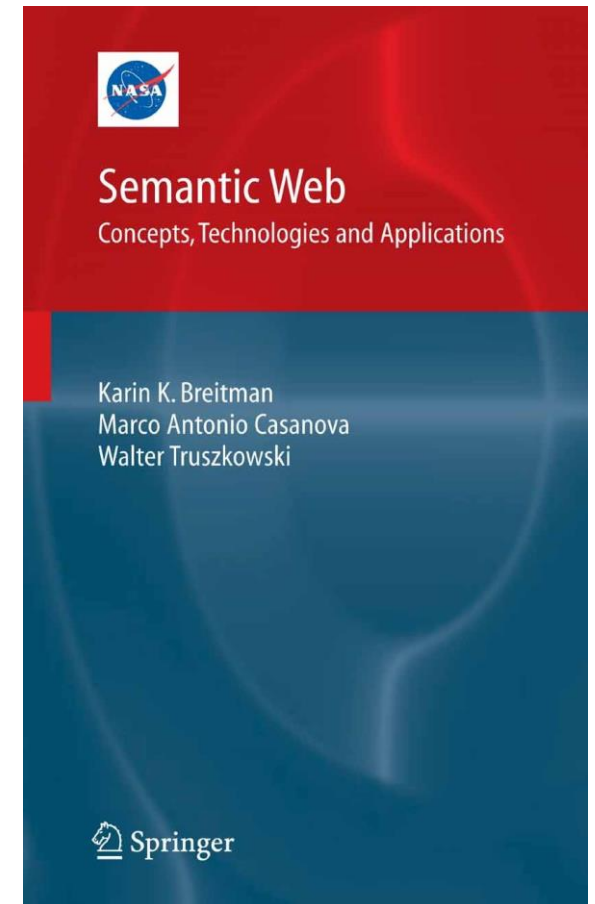
4. Nicholas C Zakas et al, **Professional AJAX**, Wrox, 2007.



# Books

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5. Karin K. Breitman, Marco Antonio Casanova and Walter Truszkowski, Semantic Web: Concepts, Technologies, and Applications, Springer International Edition, 2007.



# Software's Required

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- ✓ Eclipse/Netbeans IDE (any version)
- ✓ Visual Studio Code
- ✓ Wamp/Xamp server
- ✓ Apache Tomcat server-if Eclipse is used
- ✓ Any editor:



1. Notepad++

2. Atom

3. Brackets



4. Sublime Text

5. Vim

6. Webbuilder



7. Adobe Dreamweaver

8. EditPlus





# Prerequisites

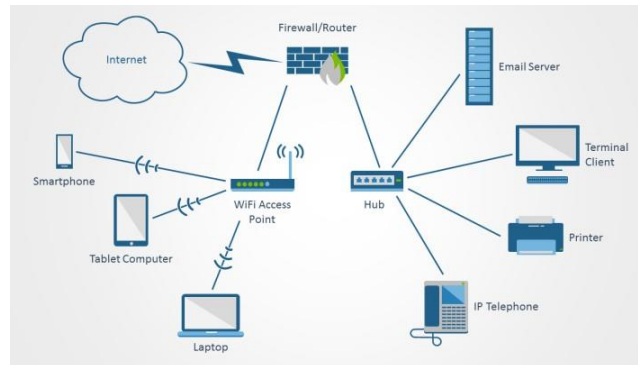
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## 1. Database concepts



## 2. Any programming language.

## 3. Basics of networking



# Continuous Teacher Assessment (CTA)

# CTA activity

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## **Requirement:**

Design and development of web applications using the following technologies to solve Institutional/Departmental requirements.

1. HTML/XHTML/HTML5
2. XML, DTD, XSD
3. PHP, JavaScript, Ajax
4. MySQL
5. CSS

## **Activity:**

- I. Defining problem statement.
- II. Designing of the database for the above requirement.
- III. Unit-wise assignments
- IV. Hosting of web applications using any open source domains.