Satuan Acara Perkuliahan

[TI162315] – [Pemrograman Web1]

Disusun dan diajarkan
oleh:

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Diketahui dan disahkan untuk dilaksanakan,
Ketua Program Studi Teknik Informatika

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Rencana Pembelajaran Semester (RPS)

Nama Mata Kuliah	**Pemrograman Web 1**
Kode Mata Kuliah	TI162315
Bobot (SKS)	3
Tahun Ajaran	2022/2023
Mata Kuliah Prasyarat	-
Tanggal Penyusunan	18 Juli 2023
Dosen Pengampu	Andrew Fernando Pakpahan, M.T. , Ph.D.

Deskripsi Mata Kuliah
This course is designed to equip students with the practical skills and theoretical knowledge necessary to create and enhance web pages. This course will begin with an introduction to the fundamentals of web development, including an overview of HTML, CSS, and JavaScript. Students will then be introduced to advanced tools and techniques, such as CSS libraries (Bootstrap and Tailwind CSS), advanced JavaScript features, AJAX, jQuery, and popular JavaScript frameworks (React or Vue.js). Throughout the course, students will engage in a variety of assignments and quizzes, along with a final project to demonstrate their comprehensive understanding of web development.

Bahan Kajian / Materi Pembelajaran	1. HTML/CSS guides and references 2. Bootstrap and Tailwind CSS documentation 3. Interactive HTML/CSS/JavaScript online coding platforms, such as CodePen and JSFiddle 4. JavaScript references and guides, including the Mozilla Developer Network (MDN) 5. jQuery and chosen JavaScript framework (React or Vue.js) documentation 6. Online tutorial videos and articles on web development topics 7. AJAX tutorials and resources 8. ES6 tutorials and guides 9. Examples of web applications built with JavaScript frameworks 10. Online coding exercises to practice concepts and techniques
Capaian Pembelajaran	Upon completion of this course, students will be able to: 1. Understand the fundamental principles of web development. 2. Create and structure HTML web pages. 3. Apply CSS to design and layout web pages, including an understanding of the box model and CSS positioning.

	4. Use Bootstrap and Tailwind CSS to create responsive and advanced UI components. 5. Understand and apply fundamental and advanced JavaScript, including ES6 features and AJAX. 6. Manipulate web pages using JavaScript and the Document Object Model (DOM). 7. Implement event handling in JavaScript and jQuery. 8. Understand and use a JavaScript framework (React or Vue.js) to build single-page applications. 9. Integrate with APIs and handle routing in a JavaScript framework. 10. Apply best practices in web development to build and present a comprehensive final project.
Daftar Referensi	1. Mozilla Developer Network (MDN) Web Docs • HTML: https://developer.mozilla.org/en-US/docs/Web/HTML • CSS: https://developer.mozilla.org/en-US/docs/Web/CSS • JavaScript: https://developer.mozilla.org/en-US/docs/Web/JavaScript 2. W3Schools Online Web Tutorials • HTML: https://www.w3schools.com/html/ • CSS: https://www.w3schools.com/css/ • JavaScript: https://www.w3schools.com/js/ 3. Bootstrap Documentation (v5.x, released in 2021) • https://getbootstrap.com/docs/5.x/getting-started/introduction/ 4. Tailwind CSS Documentation (v3.x, released in 2023) • https://tailwindcss.com/docs 5. ECMAScript 6 (ES6) Features with Examples • https://dmitripavlutin.com/javascript-es6-features/ 6. jQuery API Documentation • https://api.jquery.com/ 7. React Documentation (v18.x, released in 2023) • https://reactjs.org/docs/getting-started.html 8. Vue.js Guide (v3.x, released in 2020) • https://v3.vuejs.org/guide/introduction.html 9. Async JavaScript: From Callbacks, to Promises, to Async/Await • https://tylermcginnis.com/async-javascript-from-callbacks-to-promises-to-async-await/ 10. Fetch API Documentation on MDN • https://developer.mozilla.org/en-US/docs/Web/API/Fetch_API 11. FreeCodeCamp's Interactive Coding Challenges • https://www.freecodecamp.org/learn

	12. CSS-Tricks Guide to Flexbox and Grid (great for understanding CSS layout principles) • Flexbox: https://css-tricks.com/snippets/css/a-guide-to-flexbox/ • Grid: https://css-tricks.com/snippets/css/complete-guide-grid/ 13. Codecademy's JavaScript Course (updated in 2023) • https://www.codecademy.com/learn/introduction-to-javascript

SISTIM PENILAIAN:
Sistim penilaian dilakukan dengan melibatkan komponen-komponen:

Assessment Type	Number	Percentage Each	Total Weight
Assignments	20	1.50%	30%
Quizzes	7	2%	14%
Mid-Term Test	1	16%	16%
Final Test	1	20%	20%
Final Project	1	20%	20%
Total	-	-	**100%**

Week	Meeting	Topic	Discussion Material	Assignment/Quiz/Project	References	Integrated Faith and Learning (IFL)
1	1	Introduction to Web Development and HTML Basics	Introduction to web development, understanding the internet, browsers, and servers	Assignment 1: "Research Assignment: How Does the Internet Work?"	MDN Introduction to HTML	Prov 24:3-4 - Discuss how wisdom is integral in creating robust and reliable systems, akin to building a strong house
1	2	HTML Basics	HTML basics: tags, elements, attributes	Assignment 2: "Creating a Basic HTML Page"	W3Schools HTML Tutorial	Gen 1:1 - Reflection on how coding is a creative process much like God's creation of the universe
2	3	HTML Structure	HTML structure: headers, paragraphs, links, lists	Assignment 3: "Adding Structure to the HTML Page"	HTML Dog HTML Beginner Tutorial	Psalm 127:1 - Consider the importance of establishing solid foundations, both in coding and in life
2	4	HTML Advanced	HTML tables, forms, and semantic HTML	Quiz 1: HTML Basics	MDN HTML Forms	Rom 5:5 - Discuss the perseverance required in understanding and mastering web development
3	5	Introduction to CSS	Introduction to CSS: linking stylesheets, basic selectors	Assignment 4: "Styling the HTML Page"	CSS Basics	Exodus 31:3-5 - Explore how God imbued us with the capacity for skilled craftsmanship, including coding
3	6	CSS Box Model	CSS box model: borders, margins, and padding	Assignment 5: "Applying the Box Model"	MDN CSS Box Model	Prov 3:6 - Discuss the importance of thoughtful consideration and planning in all aspects of life, including coding
4	7	CSS Positioning	CSS positioning: static, relative, absolute, fixed, sticky	Quiz 2: CSS Basics	CSS Positioning	Psalm 37:23 - Reflection on the role of God in guiding our paths, including our career journeys

4	8	Introduction to Bootstrap	Bootstrap introduction: understanding, integration, classes, and grid system	Assignment 6: "Creating a Layout with Bootstrap"	Bootstrap Documentation	1 Corinthians 14:40 - Discuss how orderliness is important in designing web layouts
5	9	Bootstrap Advanced	Advanced Bootstrap components: Navbar, Modals, Cards, etc.	Assignment 7: "Creating a Complex Layout using Bootstrap Components"	Advanced Bootstrap Tutorial	1 Peter 2:5 - Consider how individual components come together to form a whole, much like stones building up a spiritual house
5	10	Introduction to Tailwind CSS	Introduction to Tailwind CSS: understanding, integration, utility classes	Assignment 8: "Building a Responsive Layout with Tailwind CSS"	Tailwind CSS Documentation	Ecclesiastes 3:1 - Reflect on the timing and seasons in coding and design, and how there is a time for every purpose
6	11	Advanced Tailwind CSS	Advanced Tailwind: responsive design, customization, plugins	Assignment 9: "Building a Complex, Responsive Web Page with Tailwind CSS"	Advanced Tailwind CSS	Psalm 18:2 - Discussion about the need for strong support systems and foundations, in coding and in life
6	12	Introduction to JavaScript	Introduction to JavaScript: variables, data types, operators		JavaScript Basics	James 1:17 - Explore how every good and perfect gift, including the ability to code, comes from God
7	13	Control Structures in JavaScript	Control structures: loops and conditional statements	Assignment 10: "Control Structures Practice" Quiz 3: JavaScript Basics	JavaScript Control Flow	Prov 2:9 - Discuss the importance of understanding, wisdom, and knowledge in making sound decisions, both in coding and in life
7	14	Functions and Scope, Arrays and Objects in JavaScript	Functions and scope, Arrays and objects in JavaScript	Assignment 11: "Understanding Functions and Scope"	MDN Function	1 Cor 12:4-6 - Discuss how diversity in functions leads to the unity of purpose, both in code and in the body of Christ
8	15	Mid Project				

8	16	Mid-Term Exam			Review all previous materials	
9	17	Introduction to the DOM and Selecting/Manipulating DOM Elements	Introduction to the DOM, selecting and manipulating DOM elements	Assignment 12: "Basic and Advanced DOM Manipulation"	DOM Introduction	John 1:3, Rom 12:2 - Consider how all things are created through God, much like how all elements are created in the DOM, and discuss the idea of transformation in the context of DOM manipulation
10	18	Event Handling in JavaScript	Event handling in JavaScript	Quiz 5: JavaScript DOM Manipulation, Assignment 14: Event handling in Javascript	JavaScript HTML DOM Events	Heb 11:27 - Explore how Moses' endurance is a model for the patience required in event handling
10	19	Introduction to ES6	Introduction to ES6: let, const, arrow functions	Assignment 14: "Working with ES6"	ES6 Features	Hebrews 13:8 - Reflect on the unchanging nature of God in contrast to the evolution of JavaScript
11	20	ES6 Continued	ES6 features continued: template strings, spread and rest operators	Assignment 15: "Building a Small App with ES6"	MDN ES6 Guide	Psalm 119:105 - Discuss how God's word guides our paths, much like good coding practices guide software development
11	21	Introduction to AJAX and Asynchronous JavaScript	Introduction to AJAX, asynchronous JavaScript	Quiz 6: Advanced JavaScript	MDN AJAX Guide	Isaiah 40:31 - Discuss the importance of patience and waiting in the context of asynchronous programming
12	22	Promises, async/await, and fetch API	Promises, async/await, fetch API	Assignment 16: "Working with AJAX and Asynchronous JavaScript"	MDN Using Fetch	Heb 10:36 - Reflect on the rewards of perseverance, both in coding and in spiritual life

12	23	Introduction to jQuery	Introduction to jQuery: selectors, events, effects	Assignment 17: "Interactive Web Page with jQuery"	jQuery Tutorial	Psalm 37:7 - Discuss the importance of trust in God's timing when working with event-driven programming like jQuery
13	24	Deep Dive into jQuery	Deep dive into jQuery: AJAX, utilities	Quiz 7: jQuery	jQuery AJAX	Psalm 28:7 - Reflect on how God strengthens and helps us in difficult times, much like how jQuery simplifies complex coding tasks
13	25	Introduction to a JS Framework (React or Vue.js)	Introduction to a JS framework (React or Vue.js): setting up, basic concepts	Assignment 18: "Setting Up a Project with the Chosen Framework"	React Documentation / Vue.js Documentation	Eph 2:10 - Explore how we are God's workmanship, created to do good works, similar to how we create applications with JS frameworks
14	26	Components, Props, and State in the Chosen Framework	Components, props, and state in the chosen framework	Assignment 19: "Creating Components and Working with State and Props in the Chosen Framework"	React Components / Vue.js Components	Rom 12:4-5 - Discuss the diversity of functions within a united body, both in a software framework and in the body of Christ
14	27	Advanced Concepts in the Chosen Framework	Advanced concepts in the chosen framework: lifecycle methods (React), directives (Vue)	Quiz 8: JS Frameworks	React Advanced Guides / Vue.js Advanced	Psalm 139:16 - Reflect on how God has a perfect plan for our lives, similar to how a framework orchestrates the behavior of an application
15	28	Routing and API Integration in the Chosen Framework	Routing and API integration in the chosen framework	Assignment 20: "Building a Small App with Routing and API Integration"	React Router / Vue Router	Proverbs 16:9 - Consider how we plan our paths, but God determines our steps, much like how routing controls the paths in an application

15	29	Best Practices and Tips for the Chosen Framework, Introduction to the Final Project	Best practices and tips for the chosen framework, Introduction to the final project, planning and setup;	React Best Practices / Vue.js Style Guide	1 Corinthians 9:24 - Reflect on how running the race to get the prize is akin to striving for excellence in our coding practices
16	30	Final Test	Final Test		1 Corinthians 3:9 - Discuss how we are co-laborers with God, just as we collaborate with others on coding projects
16	31	Final Project Presentation	Final Project presentations	Presentations Skills	Phil 4:13 - Reflect on the strength we receive from Christ in all endeavors, including coding challenges

Meeting 1

Topic/Subtopic
Introduction to Web Development and HTML Basics

Specific Learning Objectives
By the end of this session, students are expected to understand the basics of web development, including the operation of the internet, and the roles of browsers and servers. Students will also gain a preliminary understanding of HTML - including the meaning of tags, elements, and attributes. The class will begin with introductions, a discussion on the course outline, and the laying out of class rules.

Detailed Lecture Content
• Introduction: Getting to know each other, outlining the course, and establishing class rules. • Install VisualStudio Code, Install Safe Exam Browser • What is Web Development? Exploring the purpose and processes of web development, its role in today's tech-driven society, and the various professions related to it. • Understanding the Internet: Discussion on how the internet works, what are browsers and servers, and how they interact with each other. • Introduction to HTML: Diving into the backbone of web pages. What is HTML? Why is it important? • Components of HTML: Explanation and examples of tags, elements, and attributes in HTML, and how they structure the content of a web page.

Integrated Faith and Learning (IFL)
Prov 24:3-4 - Discuss how wisdom is integral in creating robust and reliable systems, akin to building a strong house.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lectures, Question & Answer sessions, Discussions, and Hands-on practice.

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Learning Platform (Moodle).

Evaluation
• What is web development and why is it considered influential in today's technological advancement? • Introduction to HTML: Explain what are tags, elements, and attributes?

Assignment
• Assignment 1: "Research Assignment: How Does the Internet Work?"

References
1. MDN Introduction to HTML 2. W3Schools HTML Tutorial 3. HTML Dog HTML Beginner Tutorial

Meeting 2

Topic/Subtopic
HTML Basics

Specific Learning Objectives
By the end of this session, students are expected to apply the basic principles of HTML and create a simple HTML page. This includes the correct usage of tags, elements, and attributes and the understanding of their functionality in structuring a web page. The session will mainly focus on practical hands-on exercises.

Detailed Lecture Content
• Review of HTML Basics: A quick recap of the introduction to HTML from the previous session. • Hands-on HTML: Guided hands-on exercise on creating an HTML page, explaining the structure, and its various components. • HTML Tags: Detailed discussion on various HTML tags like <p>, <h1> to <h6>, <title>, etc., and their roles in an HTML page. • HTML Elements: Explanation on HTML elements and how they define the structure of web content. • HTML Attributes: Understanding HTML attributes and how they provide additional information about HTML elements.

Integrated Faith and Learning (IFL)
Gen 1:1 - Reflection on how coding is a creative process much like God's creation of the universe.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lectures, Question & Answer sessions, Discussions, and Hands-on practice.

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Define HTML tags, elements, and attributes and give examples. • Create a basic HTML page using the tags, elements, and attributes discussed in class.

Assignment
• Assignment 2: "Creating a Basic HTML Page"

References
1. MDN HTML Basics 2. W3Schools HTML Tutorial 3. HTML Dog HTML Beginner Tutorial

Meeting 3

Topic/Subtopic
HTML Structure

Specific Learning Objectives
By the end of this session, students are expected to understand and apply HTML structure principles, including the use of headers, paragraphs, links, and lists. Students will create an HTML page employing these elements to organize and display content effectively.

Detailed Lecture Content
• Introduction to HTML Structure: A brief overview of the importance of HTML structure in creating a web page. • HTML Headers: Understanding the use of <h1> to <h6> tags for creating headers. • HTML Paragraphs: Using the <p> tag for creating paragraphs. • HTML Links: Creating hyperlinks using the <a> tag and the href attribute. • HTML Lists: Explanation and application of ordered ( ) and unordered lists ( ), including list items ( ).

Integrated Faith and Learning (IFL)
Psalm 127:1 - Consider the importance of establishing solid foundations, both in coding and in life.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Hands-on coding exercises, Question & Answer sessions, Discussions..

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Define and give examples of the use of headers, paragraphs, links, and lists in HTML. • Explain the importance of these elements in creating a well-structured HTML page.

Assignment
• Assignment 3: "Adding Structure to the HTML Page"

References
1. HTML Structure - MDN 2. HTML Lists - W3Schools 3. HTML Links - W3Schools

Meeting 4

Topic/Subtopic
HTML Advanced

Specific Learning Objectives
By the end of this meeting, students are expected to understand and apply advanced HTML concepts including tables, forms, and semantic HTML. They will demonstrate their understanding by creating a web page using these elements.

Detailed Lecture Content
• HTML Tables: Understanding the structure and usage of tables using the **<table>**, **<tr>**, **<th>**, and **<td>** tags. • HTML Forms: Explanation and application of form creation using the **<form>** tag and associated input elements. • Semantic HTML: An overview of semantic HTML elements like **<header>**, **<footer>**, **<article>**, **<section>** etc. and their importance in making a webpage more accessible and SEO friendly.

Integrated Faith and Learning (IFL)
Romans 5:5 - Discuss the perseverance required in understanding and mastering web development.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Hands-on coding exercises, Question & Answer sessions, Discussions..

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Describe the structure of an HTML table and form. • Define semantic HTML and explain its importance in web development.

Assignment
• Quiz 1: HTML Basics

References
1. HTML Tables - MDN 2. HTML Forms - MDN 3. Semantic HTML - MDN

Meeting 5

Topic/Subtopic
Introduction to CSS

Specific Learning Objectives
By the end of this meeting, students are expected to understand the basics of CSS, how to link stylesheets, and how to use basic selectors. They will apply these skills in styling a webpage.

Detailed Lecture Content
• Introduction to CSS: Understanding what CSS is and how it enhances the visual presentation of HTML documents. • Linking Stylesheets: Demonstrating how to link external CSS files to HTML documents using the **<link>** tag. • Basic Selectors: Exploring different types of CSS selectors like element selectors, class selectors, and ID selectors, and understanding their usage.

Integrated Faith and Learning (IFL)
Exodus 31:3-5 - Explore how God imbued us with the capacity for skilled craftsmanship, including coding.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Hands-on coding exercises, Question & Answer sessions, Discussions..

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Explain the role of CSS in web development. • Describe how to link a CSS file to an HTML document. • Identify and use different types of CSS selectors.

Assignment
• Assignment 4: "Styling the HTML Page"

References
1. Introduction to CSS - MDN 2. CSS Basics - w3schools 3. CSS Selectors - MDN

Meeting 6

Topic/Subtopic
CSS Box Model

Specific Learning Objectives
By the end of this meeting, students are expected to understand the CSS Box Model, its components, and how they affect the layout and appearance of elements on a webpage.

Detailed Lecture Content
• Understanding the CSS Box Model: Exploring the concept of the box model and how every element on a web page is a box. • Box Model Components: Delving into each component of the box model, including content, padding, border, and margin. • Applying the Box Model: Demonstrating how manipulating the box model affects the layout and appearance of webpage elements.

Integrated Faith and Learning (IFL)
Proverbs 3:6 - Discuss the importance of thoughtful consideration and planning in all aspects of life, including coding.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Hands-on coding exercises, Question & Answer sessions, Discussions..

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Describe the CSS box model and its components. • Demonstrate how to manipulate the padding, border, and margin of an element using CSS.

Assignment
• Assignment 5: "Applying the Box Model"

References
1. CSS Box Model - MDN 2. Box Model - w3schools 3. Box Model - CSS Tricks

Meeting 7

Topic/Subtopic
CSS Positioning

Specific Learning Objectives
By the end of this meeting, students are expected to comprehend the concept of CSS positioning, its types, and how to implement them to control the layout of webpage elements.

Detailed Lecture Content
• Overview of CSS Positioning: Understanding the purpose and importance of CSS positioning in web development. • CSS Positioning Types: Introducing and explaining the different types of CSS positioning - static, relative, absolute, fixed, and sticky. • Practical CSS Positioning: Demonstrating how to use different CSS positions to control the layout of elements on a webpage.

Integrated Faith and Learning (IFL)
Psalm 37:23 - Reflection on the role of God in guiding our paths, including our career journeys.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Hands-on coding exercises, Question & Answer sessions, Discussions..

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Describe the different types of CSS positioning and their effects on webpage layout. • Implement the different types of CSS positioning in a hands-on coding exercise.

Assignment
• Quiz 2: CSS Basics

References
1. CSS Positioning - MDN 2. CSS Positioning - w3schools 3. CSS Positioning - CSS Tricks

Meeting 8

Topic/Subtopic
Introduction to Bootstrap

Specific Learning Objectives
By the end of this meeting, students should understand the basics of Bootstrap, its components, and how to use the Bootstrap grid system to create responsive designs.

Detailed Lecture Content
• Understanding Bootstrap: Explanation of what Bootstrap is, why it's important in web development, and its core features. • Bootstrap Components: Introduction to the components of Bootstrap, such as buttons, forms, dropdowns, and more. • The Bootstrap Grid System: Discussing how to use the Bootstrap grid system for creating responsive layouts.

Integrated Faith and Learning (IFL)
• 1 Corinthians 14:40 - Discuss how orderliness is important in designing web layouts.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Hands-on coding exercises, Question & Answer sessions, Discussions..

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Explain what Bootstrap is and why it is a significant tool in web development. • Identify key components of Bootstrap and describe their functionality. • Create a responsive webpage layout using the Bootstrap grid system.

Assignment
• Assignment 6: "Creating a Layout with Bootstrap"

References
1. Bootstrap Documentation 2. Bootstrap - w3schools 3. MD Bootstrap

Meeting 9

Topic/Subtopic
Advanced Bootstrap Components

Specific Learning Objectives
By the end of this meeting, students should be able to use advanced Bootstrap components such as Navbar, Modals, Cards, and more, to enhance their web designs.

Detailed Lecture Content
• HTML Tables: Understanding the structure and usage of tables using the **<table>**, **<tr>**, **<th>**, and **<td>** tags. • HTML Forms: Explanation and application of form creation using the **<form>** tag and associated input elements. • Semantic HTML: An overview of semantic HTML elements like **<header>**, **<footer>**, **<article>**, **<section>** etc. and their importance in making a webpage more accessible and SEO friendly.

Integrated Faith and Learning (IFL)
1 Peter 2:5 - Consider how individual components come together to form a whole, much like stones building up a spiritual house.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Hands-on coding exercises, Question & Answer sessions, Discussions..

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Identify and explain the functionality of advanced Bootstrap components such as Navbar, Modals, Cards, etc. • Implement these components in a web page. • Describe how different components can work together to create complex web layouts.

Assignment
• Assignment 7: "Creating a Complex Layout using Bootstrap Components"

References
1. Bootstrap Components - Official Documentation 2. Bootstrap Components - w3schools 3. Advanced Bootstrap Tutorial - Tutorial Republic

Meeting 10

Topic/Subtopic
Introduction to Tailwind CSS

Specific Learning Objectives
By the end of this meeting, students should understand Tailwind CSS, its utility-first principle, and be able to implement basic functionality in a web design.

Detailed Lecture Content
• Introduction to Tailwind CSS: Overview and comparison with other CSS frameworks. • Understanding Utility-first principle: The philosophy behind Tailwind's design. • Basic Tailwind Syntax and Usage: Classes, responsive design, customizing Tailwind. • Hands-on Practice: Building a simple responsive layout using Tailwind CSS.

Integrated Faith and Learning (IFL)
Ecclesiastes 3:1 - Reflect on the timing and seasons in coding and design, and how there is a time for every purpose.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Hands-on coding exercises, Question & Answer sessions, Discussions..

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Understanding of Tailwind CSS and its utility-first principle. • Implementing basic layout designs using Tailwind CSS. • Modifying Tailwind's default configurations as per design needs.

Assignment
• Assignment 8: "Building a Responsive Layout with Tailwind CSS"

References
1. Tailwind CSS - Official Documentation 2. Tailwind CSS - Introduction and Tutorial 3. Getting Started with Tailwind CSS - Tutorial

Meeting 11

Topic/Subtopic
Advanced Tailwind CSS

Specific Learning Objectives
By the end of this meeting, students should be able to work with advanced Tailwind CSS concepts, design complex responsive layouts, and utilize Tailwind CSS customization and plugins.

Detailed Lecture Content
• Exploring Tailwind CSS: Advanced utility classes for responsive design. • Customizing Tailwind CSS: Tailoring the framework for your specific project. • Tailwind CSS Plugins: Extending Tailwind's functionality. • Hands-on Practice: Building a complex, responsive web page using advanced Tailwind CSS.

Integrated Faith and Learning (IFL)
Psalm 18:2 - Discussion about the need for strong support systems and foundations, in coding and in life.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Hands-on coding exercises, Question & Answer sessions, Discussions.

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Understanding of advanced Tailwind CSS concepts and plugins. • Implementing complex layout designs using advanced Tailwind CSS classes. • Customizing Tailwind CSS to suit specific project needs.

Assignment
• Assignment 9: "Building a Complex, Responsive Web Page with Tailwind CSS"

References
1. Tailwind CSS - Official Documentation 2. Advanced Usage of Tailwind CSS - Article 3. Tailwind CSS - Advanced Course on YouTube

Meeting 12

Topic/Subtopic
Introduction to JavaScript

Specific Learning Objectives
By the end of this meeting, students should be able to understand and apply basic JavaScript concepts including variables, data types, and operators.

Detailed Lecture Content
• What is JavaScript? An introduction to the language, its importance, and use cases. • JavaScript Basics: Variables, Data Types (number, string, boolean, null, undefined, and object), and Operators (arithmetic, assignment, comparison, logical, bitwise). • Practical Examples: Writing simple JavaScript programs using basic concepts.

Integrated Faith and Learning (IFL)
James 1:17 - Explore how every good and perfect gift, including the ability to code, comes from God.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Hands-on coding exercises, Question & Answer sessions, Discussions..

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Understanding of basic JavaScript concepts: variables, data types, and operators. • Ability to write simple JavaScript programs.

Assignment

References
1. JavaScript Basics - MDN 2. JavaScript Fundamentals - JavaScript.info 3. Introduction to JavaScript - W3Schools

Meeting 13

Topic/Subtopic
Control Structures in JavaScript

Specific Learning Objectives
By the end of this meeting, students should be able to understand and utilize JavaScript control structures such as loops and conditional statements.

Detailed Lecture Content
• Introduction to JavaScript Control Structures: Loops (for, while, do-while) and Conditional Statements (if, else if, else, switch). • Concept of flow control: How loops and conditionals alter the execution path of a program. • Practical examples: Writing programs involving loops and conditional statements to solve common problems.

Integrated Faith and Learning (IFL)
Proverbs 2:9 - Discuss the importance of understanding, wisdom, and knowledge in making sound decisions, both in coding and in life.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Hands-on coding exercises, Question & Answer sessions, Discussions..

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Understanding of JavaScript control structures: loops and conditional statements. • Ability to write programs using these control structures.

Assignment
• Quiz 3: "JavaScript Basics" • Assignment 10: "Control Structures Practice"

References
1. JavaScript Control Flow - MDN 2. JavaScript Loops, Conditionals - W3Schools 3. Understanding Control Flow in JavaScript - DigitalOcean

Meeting 14

Topic/Subtopic
Functions and Scope, Arrays and Objects in JavaScript

Specific Learning Objectives
By the end of this meeting, students should be able to understand and implement JavaScript functions, understand the concept of scope, and utilize arrays and objects in JavaScript.

Detailed Lecture Content
• Understanding Functions in JavaScript: function declaration, function expression, arrow functions, parameters, return statement. • Understanding Scope in JavaScript: global scope, local scope, block scope. • Understanding and utilizing Arrays and Objects in JavaScript: array methods, object properties, methods, and object-oriented programming.

Integrated Faith and Learning (IFL)
1 Corinthians 12:4-6 - Discuss how diversity in functions leads to the unity of purpose, both in code and in the body of Christ.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Practical coding exercises, Question & Answer sessions, Discussions...

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Understanding of functions, scope, arrays, and objects in JavaScript. • Ability to write functional code using these concepts.

Assignment
• Assignment 11: "Understanding Functions and Scope"

References
1. Functions - MDN 2. JavaScript Functions - W3Schools 3. Understanding Scope in JavaScript - Scrimba

Meeting 15

Topic/Subtopic
Mid Project

Specific Learning Objectives
By the end of this meeting, students should be able to apply the skills and knowledge gained from previous lessons to a project that showcases their understanding and practical usage of HTML, CSS, JavaScript, and any chosen CSS frameworks like Bootstrap or Tailwind CSS.

Detailed Lecture Content
• Review of concepts learned from previous meetings. • Discuss the requirement of the project. • Breakout sessions to brainstorm, plan and design the project.

Integrated Faith and Learning (IFL)
No specific verse - Students are reminded to approach the project with wisdom, patience, creativity, and perseverance.

Teaching Approach		
Approach	:	Expository and Participatory
Methods	:	Lectures, Practical coding exercises, Question & Answer sessions, Discussions...

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Students' ability to apply the principles and concepts learned. • Group project presentation and code review.

Assignment
• Mid Project

References
1. HTML - MDN 2. CSS - MDN 3. JavaScript Basics - MDN 4. Bootstrap Documentation 5. Tailwind CSS Documentation

Meeting 16

Topic/Subtopic
Mid-Term Exam

Specific Learning Objectives
By the end of this meeting, students should be able to demonstrate their understanding and proficiency in HTML, CSS, JavaScript, Bootstrap, Tailwind CSS through a written and/or practical examination.

Detailed Lecture Content
• • Review session: Q&A, last-minute clarifications on difficult concepts. • Overview of exam structure, rules, and guidelines. • Conduct the mid-term exam.

Integrated Faith and Learning (IFL)
No specific verse - Students are reminded to approach the project with wisdom, patience, creativity, and perseverance.

Teaching Approach		
Approach	:	Evaluative and Review
Methods	:	Q&A, Review, Examination

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• Mid-term Examination

Assignment
• No new assignment, prepare for the result and feedback of the examination.

References
1. HTML - MDN 2. CSS - MDN 3. JavaScript Basics - MDN 4. Bootstrap Documentation 5. Tailwind CSS Documentation

Meeting 17

Topic/Subtopic
Introduction to the DOM and Selecting/Manipulating DOM Elements

Specific Learning Objectives
By the end of this session, students should be able to understand the Document Object Model (DOM), how to select and manipulate DOM elements using JavaScript.

Detailed Lecture Content
• What is the DOM? Why is it important? • Structure and hierarchy of the DOM. • Methods for selecting DOM elements: getElementById, getElementsByClassName, querySelector, etc. • Manipulating DOM elements: changing innerHTML, modifying attributes, creating new elements, deleting elements.

Integrated Faith and Learning (IFL)
John 1:3, Rom 12:2 - Reflect on the creation of all things through God, much like how all elements are created in the DOM. Discuss the concept of transformation in life, akin to DOM manipulation in web development.

Teaching Approach		
Approach	:	Expository and CommunicativeQ&A, Review, Examination
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform

Evaluation
• What is the Document Object Model (DOM)? How do you select and manipulate DOM elements in JavaScript?

Assignment
• Assignment 12: "Basic and Advanced DOM Manipulation"

References
1. Introduction to the DOM - MDN 2. DOM Tutorial - W3Schools

Meeting 18

Topic/Subtopic
Event Handling in JavaScript

Specific Learning Objectives
By the end of this lecture, students should be able to understand and implement JavaScript event handling. They should know how to add event listeners to DOM elements and create functions to execute when these events occur.

Detailed Lecture Content
• What are events in JavaScript? • Different types of events: click, mouseover, keydown, etc. • How to add event listeners to DOM elements. • Creating functions to execute when events occur. • Event propagation: capturing and bubbling. • The event object: target, currentTarget, preventDefault, etc.

Integrated Faith and Learning (IFL)
Heb 11:27 - Discuss how Moses' endurance mirrors the patience required in event handling. How can we exhibit such patience and perseverance in our coding practices?

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• What are events in JavaScript and how are they handled?

Assignment
• Assignment 12: "Basic and Advanced DOM Manipulation"

References
1. Introduction to events - MDN 2. JavaScript HTML DOM Events - W3Schools

Meeting 19

Topic/Subtopic
Introduction to ES6

Specific Learning Objectives
By the end of this lecture, students should be able to understand and apply the basics of ES6 (ECMAScript 2015) in JavaScript coding, including the usage of **let**, **const**, and arrow functions.

Detailed Lecture Content
• Introduction to ES6 and its significance. • Differences between **var**, **let**, and **const**. • Understanding block scope. • Introduction to arrow functions and their benefits. • Brief overview of other ES6 features (template literals, default parameters, etc.) that will be covered in the next lecture.

Integrated Faith and Learning (IFL)
Hebrews 13:8 - Discuss the contrast between the unchanging nature of God and the constant evolution of languages like JavaScript. How can we find stability amidst this constant change?

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• What are the key features of ES6 that differentiate it from earlier versions of JavaScript?

Assignment
• Assignment 14: "Working with ES6"

References
1. ES6 Features - MDN 2. Arrow Function - MDN 3. ES6 Overview - W3Schools

Meeting 20

Topic/Subtopic
ES6 Continued: template strings, spread and rest operators

Specific Learning Objectives
By the end of this lecture, students should be able to use ES6 features such as template strings, and understand and apply spread and rest operators in their JavaScript code.

Detailed Lecture Content
• Deep dive into ES6: Overview and significance of template strings • Using template strings for string interpolation and multi-line strings • Understanding the spread operator and its uses • Understanding the rest operator and its uses • Practical examples and exercises of these ES6 features

Integrated Faith and Learning (IFL)
Psalm 119:105 - Discuss how God's word guides our paths, much like good coding practices guide software development. Reflect on the clarity and efficiency that these ES6 features bring, much like how God's guidance brings clarity to our lives.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• How does the spread operator differ from the rest operator? • What are the advantages of using template strings over traditional string concatenation?

Assignment
• Assignment 15: "Building a Small App with ES6"

References
1. Template Strings - MDN 2. Spread Syntax - MDN 3. Rest Parameters - MDN

Meeting 21

Topic/Subtopic
Introduction to AJAX and Asynchronous JavaScript

Specific Learning Objectives
By the end of this lecture, students should understand the concept of AJAX (Asynchronous JavaScript and XML), the role of AJAX in enabling dynamic and asynchronous behavior in web applications, and the basics of working with AJAX in JavaScript.

Detailed Lecture Content
• Definition of AJAX and understanding the significance of asynchronous behavior in web applications • How AJAX works: The XMLHttpRequest object and the Fetch API • Making AJAX requests and handling responses • Understanding status codes and error handling with AJAX

Integrated Faith and Learning (IFL)
Isaiah 40:31 - But those who wait for the LORD shall renew their strength, they shall mount up with wings like eagles, they shall run and not be weary, they shall walk and not faint. Discuss the importance of patience and waiting in the context of asynchronous programming.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• What is AJAX, and how does it allow for asynchronous behavior in web applications? • How can you make an AJAX request and handle the response? • How can you handle errors in AJAX?

Assignment
• Quiz 6: Advanced JavaScript

References
1. MDN AJAX Guide 2. Asynchronous Programming and AJAX for Beginners 3. JavaScript and AJAX: Integration Techniques 4. JavaScript AJAX Tutorial

Meeting 22

Topic/Subtopic
Promises, async/await, and fetch API

Specific Learning Objectives
By the end of this lecture, students should be able to work with Promises and the async/await syntax in JavaScript. They should understand the role of the fetch API in making network requests and be able to handle the returned Promises and the data returned from these Promises.

Detailed Lecture Content
• Review of Promises in JavaScript • How to use the fetch API to make requests and return Promises • Using async/await to handle the asynchronous behavior of the fetch API • Chaining Promises returned from the fetch API • Error handling in Promises and the fetch API

Integrated Faith and Learning (IFL)
Hebrews 10:36 - For you have need of endurance, so that when you have done the will of God you may receive what is promised. Reflect on the rewards of perseverance, both in coding and in spiritual life.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• What is the fetch API, and how does it use Promises? • How can you use async/await with the fetch API? • How can you handle errors in Promises and the fetch API?

Assignment
• Assignment 16: "Working with AJAX and Asynchronous JavaScript"

References
1. Using Fetch - MDN 2. JavaScript async and await in loops 3. Async/await: How do they work? 4. Error handling in async JavaScript

Meeting 23

Topic/Subtopic
Introduction to jQuery: selectors, events, effects

Specific Learning Objectives
By the end of this lecture, students should be familiar with jQuery and understand the advantages of using this popular JavaScript library. They should know how to use selectors to target elements, handle events, and apply effects on the webpage.

Detailed Lecture Content
• Introduction to jQuery and its advantages • jQuery vs Vanilla JavaScript • Understanding jQuery selectors • Events handling in jQuery • Applying effects with jQuery

Integrated Faith and Learning (IFL)
Psalm 37:7 - "Be still before the LORD and wait patiently for him; do not fret when people succeed in their ways, when they carry out their wicked schemes." Discuss the importance of trust in God's timing when working with event-driven programming like jQuery.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• What is jQuery, and what are some of its advantages? • How do jQuery selectors work? • How can events and effects be handled in jQuery?

Assignment
• Assignment 17: "Interactive Web Page with jQuery"

References
1. jQuery Tutorial - W3Schools 2. Getting Started with jQuery - jQuery Learning Center 3. jQuery Effects - jQuery Official Documentation 4. jQuery Event Methods - jQuery Official Documentation

Meeting 24

Topic/Subtopic
Deep Dive into jQuery: AJAX, utilities

Specific Learning Objectives
By the end of this lecture, students should have a more advanced understanding of jQuery. They should be able to use jQuery's AJAX methods to fetch data from an API and understand how to use various utility functions provided by the jQuery library.

Detailed Lecture Content
• Deeper understanding of jQuery's capabilities • Using jQuery's AJAX methods for API data fetching • Understanding and using utility functions in jQuery

Integrated Faith and Learning (IFL)
Psalm 28:7 - "The LORD is my strength and my shield; my heart trusts in him, and he helps me. My heart leaps for joy, and with my song I praise him." Reflect on how God strengthens and helps us in difficult times, much like how jQuery simplifies complex coding tasks.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• How does jQuery simplify AJAX calls compared to pure JavaScript? • What are some utility functions provided by jQuery, and how can they be useful? • How do you handle AJAX responses in jQuery?

Assignment
• Quiz 7: jQuery

References
1. jQuery AJAX Methods - W3Schools 2. jQuery Utility Methods - jQuery Official Documentation 3. AJAX - jQuery Official Documentation 4. jQuery Tutorial - AJAX Introduction - TutorialsPoint

Meeting 25

Topic/Subtopic
Introduction to a JS Framework (React or Vue.js)

Specific Learning Objectives
By the end of this lecture, students should have an understanding of the fundamentals of a chosen JavaScript framework such as React or Vue.js. They should understand the concept of components, be able to set up a new project in the chosen framework, and understand the basic concepts of the chosen framework.

Detailed Lecture Content
• Choosing a JavaScript framework: React or Vue.js • Setting up a new project in the chosen framework • Understanding the basic concepts of the chosen framework

Integrated Faith and Learning (IFL)
Ephesians 2:10 - "For we are God's handiwork, created in Christ Jesus to do good works, which God prepared in advance for us to do." Explore how we are God's workmanship, created to do good works, similar to how we create applications with JS frameworks.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• What are the key differences between React and Vue.js? • How to set up a new project in the chosen framework? • What are the basic concepts of the chosen framework?

Assignment
• Assignment 18: "Setting Up a Project with the Chosen Framework"

References
1. React Documentation 2. Vue.js Documentation 3. Comparison between React and Vue 4. Getting Started with Vue.js 5. Introduction to React

Meeting 26

Topic/Subtopic
Components, Props, and State in the Chosen Framework

Specific Learning Objectives
By the end of this lecture, students should have a solid understanding of how to create components in the chosen JavaScript framework. They should be able to work with props for passing data and understand the concept of state within a component.

Detailed Lecture Content
• Introduction to Components in the chosen framework • Understanding Props and how to pass data with Props • State in Components: Initialization, updating, and using state

Integrated Faith and Learning (IFL)
Romans 12:4-5 - "For just as each of us has one body with many members, and these members do not all have the same function, so in Christ we, though many, form one body, and each member belongs to all the others." Discuss the diversity of functions within a united body, both in a software framework and in the body of Christ.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• What are components in the chosen framework? • How to pass data with props? • What is the concept of state within a component?

Assignment
• Assignment 19: "Creating Components and Working with State and Props in the Chosen Framework"

References
1. React Components, Props, and State 2. Vue.js Components 3. Understanding Props in Vue.js 4. Understanding State and Lifecycle in React 5. Vue.js Component State

Meeting 27

Topic/Subtopic
Advanced Concepts in the Chosen Framework

Specific Learning Objectives
By the end of this lecture, students should understand the advanced features of the chosen JavaScript framework. For React, this would include lifecycle methods. For Vue.js, this would include directives.

Detailed Lecture Content
• Deep Dive into advanced features of the chosen framework • If React: Lifecycle methods, their importance and usage • If Vue.js: Understanding and using Vue.js directives • Practical examples and use cases

Integrated Faith and Learning (IFL)
Psalm 139:16 - "Your eyes saw my unformed body; all the days ordained for me were written in Your book before one of them came to be." Reflect on how God has a perfect plan for our lives, similar to how a framework orchestrates the behavior of an application.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• How do lifecycle methods or directives contribute to the functionality of the application? • Can you illustrate the use of lifecycle methods (React) or directives (Vue.js) with practical examples?

Assignment
• Quiz 8: JS Frameworks

References
1. React Advanced Guides 2. Vue.js Advanced Guides

Meeting 28

Topic/Subtopic
Routing and API Integration in the Chosen Framework

Specific Learning Objectives
By the end of this lecture, students should understand the advanced features of the chosen JavaScript framework. For React, this would include lifecycle methods. For Vue.js, this would include directives.

Detailed Lecture Content
• Introduction to routing in the chosen framework (React Router/Vue Router) • Setting up and configuring routes • Understanding API integration • Making network requests within the framework • Practical examples of API integration and routing

Integrated Faith and Learning (IFL)
Proverbs 16:9 - "In their hearts humans plan their course, but the Lord establishes their steps." Consider how we plan our paths, but God determines our steps, much like how routing controls the paths in an application.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• How can you set up routing within the chosen framework? • How can you integrate external APIs within the chosen framework?

Assignment
• Assignment 20: "Building a Small App with Routing and API Integration"

References
1. React Router 2. Vue Router

Meeting 29

Topic/Subtopic
Best Practices and Tips for the Chosen Framework, Introduction to the Final Project

Specific Learning Objectives
By the end of this lecture, students should understand the best practices for working with the chosen framework (React or Vue.js). They should also understand the expectations and requirements for the final project, as well as the strategies for successful planning and setup.

Detailed Lecture Content
• Review of best practices for the chosen framework • Code organization and project structure • Performance optimization tips • Error handling and debugging • Introduction to the final project: overview, requirements, grading criteria • Planning and setup strategies for the final project

Integrated Faith and Learning (IFL)
1 Corinthians 9:24 - "Do you not know that in a race all the runners run, but only one gets the prize? Run in such a way as to get the prize." Reflect on how running the race to get the prize is akin to striving for excellence in our coding practices.

Teaching Approach		
Approach	:	Expository and Communicative
Methods	:	Lecture, Q&A, Discussion, Practical coding

Teaching Aids
PowerPoint, Laptop, LCD Projector, Whiteboard, E-Learning platform, Online Coding Platform (like Repl.it, CodePen).

Evaluation
• What are some of the best practices when working with the chosen framework? • What is the final project about and what are the expectations?

Assignment
• Final Project - Planning and setup

References
1. React Best Practices 2. Vue.js Style Guide

Meeting 30

Topic/Subtopic
Final Test

Specific Learning Objectives
By the end of this lecture, students should be able to demonstrate their understanding and proficiency in all the covered topics of the course: HTML, CSS, JavaScript, jQuery, AJAX, ES6, and the chosen JavaScript framework (React or Vue.js).

Detailed Lecture Content
• This meeting will be dedicated to the final test. It will be a comprehensive examination covering all the topics discussed in the course.

Integrated Faith and Learning (IFL)
1 Corinthians 3:9 - "For we are co-workers in God's service; you are God's field, God's building." Discuss how we are co-laborers with God, just as we collaborate with others on coding projects.

Teaching Approach		
Approach	:	Evaluative
Methods	:	Examination

Teaching Aids
Computer, E-Learning platform

Evaluation
• The students will be evaluated based on their performance in the final test. The test will assess their knowledge, understanding, and application of the topics covered in the course.

Assignment
• Final test

References
• Review all previous materials.