



® Aptech Learning Darbhanga

1<sup>st</sup> Floor, Captain Complex, Near Naka 5

Darbhanga, Bihar, Pin - 846004.

M: +91-7061605941, 8420092738

E: aptechdarbhanga@center@gmail.com

admission@aptechdarbhanga.com

www.aptechdarbhanga.com

ACWD (OV-5004)				
Duration:	8 Months*	Fee:	LUMP SUM	INSTALLMENT
Eligibility:	10 <sup>th</sup> /Undergraduates/ Graduates / working professionals			
Job opportunities:	On successfully completing the ACWD Pro course, you will be ready to join top national & international companies as: <ul style="list-style-type: none"><li>➤ <b>HTML5 programmer</b></li><li>➤ <b>PHP programmer</b></li><li>➤ <b>Web Application Developer</b></li></ul>			
Evaluation Strategy:	Award of Grades			
	PASS	CREDIT	DISTINCTION	
	Overall Weighted Marks >= 40% but < 60% qualifies for <b>PASS</b>	Overall Weighted Marks >= 60% but < 75% qualifies for <b>CREDIT</b>	Overall Weighted Marks >= 75% but < 60% qualifies for <b>DISTINCTION</b>	
	Note: To attain a PASS/CREDIT/DISTINCTION grade, a student should achieve at least 40% in Final Examination; otherwise he/she will be declared as ‘Referred’.			
Learner’s Guide (eBook)	Course Content			
	Building Next Generation Web Sites		Bootstrap and JQuery	
	<ul style="list-style-type: none"><li>1. List the uses of HTML</li><li>2. Describe the structure of a HTML document</li><li>3. Understand the working of CSS</li><li>4. Describe the various JavaScript elements</li><li>5. Create HTML documents</li><li>6. Understand HTML element markup</li><li>7. Describe working with sections, tables, forms, and input validation</li><li>8. Explain CSS Selectors</li><li>9. Use borders and backgrounds</li><li>10. Create layouts and styles</li><li>11. Implement transitions, animations and transforms</li><li>12. Explain other CSS properties and features</li><li>13. Explain DOM</li><li>14. Work with the Window object</li><li>15. Work with DOM Elements</li><li>16. Work with Events</li><li>17. Use the Element-Specific Objects</li><li>18. Explain the basics of jQuery and its usage with Bootstrap</li><li>19. Explain the Canvas</li><li>20. Use drag and drop</li><li>21. Use Geolocation</li><li>22. Use Web Storage</li><li>23. Create offline applications</li></ul>		<ul style="list-style-type: none"><li>1. Learn basics of Bootstrap and set up Bootstrap</li><li>2. Work with Plug-ins, templates and programming in Bootstrap</li><li>3. Learn jQuery</li><li>4. Understand Selectors, functions, widgets in jQuery</li><li>5. Learn the Responsive Web layout in Bootstrap</li><li>6. Learn Headers and classes in Bootstrap</li><li>7. Build Webpages using Bootstrap and jQuery</li></ul>	

## UI/UX for Responsive Design


1. Define User Interface (UI) and User Interface design
2. List and explain the different elements of User Interface Design
3. Describe the principles of User Interface Design
4. Describe the types of User Interface Design
5. Explain the User Interface Design process
6. Describe the models in User Interface Design
7. Define User Experience (UX) and User Experience Design
8. Describe the difference between UI and UX
9. Describe the different elements of UX Design
10. Explain the significance of UX
11. List and explain the principles of User Experience Design
12. Describe the best practices in User Experience Design
13. Define Responsive UI design
14. Describe the evolution of RWD
15. Describe the importance of Progressive Enhancement
16. Outline the differences between Graceful Degradation and Progressive Enhancement
17. Explain the RWD Workflow
18. Describe the significance of RWD
19. Explain the strategies for RWD in mobile phones, Android based devices, and laptops
20. Describe the need for content strategy in RWD
21. Describe the importance of content audit
22. Explain the performance optimization for a mobile-friendly site
23. Explain the difference between responsive and adaptive Website designs
24. Define Breakpoints
25. Describe Navigation Drawers
26. Describe Stacked Pagination
27. Explain Fluid Images
28. Define Bottom Bar
29. Describe Top Bar
30. Define Front Action Calls
31. Explain Short and Simple Menus
32. Describe usability studies
33. Explain the importance of usability studies
34. List the steps for testing in usability studies
35. Describe usability studies for Responsive Web Design

## Querying with MySQL

1. List the features of MySQL.
2. State the advantages of MySQL over other RDBMS.
3. Compare MySQL with other RDBMS.
4. State the advantages of PHP in MySQL.
5. Explain open source software licenses.
6. Explain the various distribution options of MySQL.
7. Explain the installation process of MySQL on Microsoft Windows.
8. Explain the installation process of MySQL on Red Hat Enterprise Linux.
9. Explain the configuration process of MySQL using Scripts.
10. Explain initialization of MySQL at startup.
11. Explain database.
12. Explain the data types.
13. Identify the different types of data.
14. Explain the creation of a table.
15. Explain Normalization.
16. Identify the different forms of normalization.
17. Explain Indexes and Referential Integrity.
18. Describe the commands to view and alter a database.
19. Explain the commands to retrieve data from a table.
20. Describe the commands to modify the table definitions.
21. Describe the commands to delete the table definitions.
22. Explain the use of keys in a table
23. Explain the use of indexes in a table
24. Explain modification of tables
25. Explain the use of the ORDER BY command
26. Explain the use of the GROUP BY command
27. Explain the different types of table joins in MySQL
28. Explain the use of Equi-Join
29. Explain the use of Inner Join
30. Explain the use of Outer-Join
31. Explain the use of Self-Join
32. Explain the use of multiple SELECT queries in a single SELECT query
33. Explain the use of UNION with the query
34. Use the functions in MySQL.
35. Describe the use of System Information functions in MySQL.
36. Describe the creation of user accounts in MySQL.
37. Identify the privileges in MySQL.
38. Explain the privileges present in MySQL.
39. Explain the commands for setting up of restrictions in MySQL.
40. Describe the new features and enhancements added to MySQL 5.7.
41. Explain Geospatial data and how to use it in MySQL.
42. List and describe spatial data types in MySQL.
43. Identify JSON Data types.
44. Describe Stored Procedures.
45. Explain transactions and how to handle them.
46. Explain the impact of transactions on performance.
47. Describe MySQL support for different languages and timezone.
48. Describe Performance Optimization.
49. Describe Query related functions.
50. Explain capability of MySQL for scaling and availability.
51. Explain how to perform data management using replication.
52. Describe concepts of partitioning in MySQL.
53. Describe concepts of Storage Systems and Management.

Dynamic Website Development using PHP	Laravel Framework for Web Applications with PHP
<ol style="list-style-type: none"> <li>1. Understand the need and history of PHP</li> <li>2. Configure PHP 7</li> <li>3. Learn the new features of PHP 7</li> <li>4. Use Form Handling in PHP</li> <li>5. Use Variables and Expressions in PHP</li> <li>6. Use various types of operators in PHP</li> <li>7. Use conditional and flow control statements in PHP</li> <li>8. Use functions in PHP</li> <li>9. Create and use arrays in PHP</li> <li>10. Describe usage of scalar type declarations in PHP programs</li> <li>11. Describe usage of anonymous classes in PHP programs.</li> <li>12. Implement database management in PHP</li> <li>13. Use cookies in PHP</li> <li>14. Perform session management in PHP</li> <li>15. Manage e-mails using PHP</li> <li>16. Explain OOPS concepts</li> <li>17. Explain generators and generator return expressions</li> <li>18. Configure PHP 7.0.4</li> <li>19. Explain exception handling and changes in exceptions in PHP 7</li> </ol>	<ol style="list-style-type: none"> <li>1. Describe the Laravel framework</li> <li>2. Describe the need for frameworks</li> <li>3. Describe the features of Laravel</li> <li>4. View the Laravel Directory structure</li> <li>5. Create a simple Web application using fundamentals of Laravel.</li> <li>6. Understand how to use Routes to serve different Web pages.</li> <li>7. Learn how Views can enhance presentation of an application.</li> <li>8. Use the Blade Templating Engine.</li> <li>9. Describe the functionalities offered by Eloquent Object Relational Mapping (ORM)</li> </ol>

Optimize Web for Search Engines	
<ol style="list-style-type: none"> <li>1. Define the Internet and different terminologies related to it</li> <li>2. Explain the various parts of a browser</li> <li>3. Describe the terms Web Address, Web pages, and Web site</li> <li>4. Define and describe search engines</li> <li>5. Explain the Google search engine</li> <li>6. Describe various search techniques and strategies</li> <li>7. Describe advanced search techniques</li> <li>8. Describe Google search preferences</li> <li>9. Describe the different types of Google search</li> <li>10. Explain the working of Google search engine</li> <li>11. Define and describe SEO</li> <li>12. Explain the roles and responsibilities of SEO Consultant</li> <li>13. List the Google Webmaster guidelines for SEO</li> <li>14. Explain the basic techniques used to implement SEO</li> <li>15. Explain the process of submitting pages to Google</li> <li>16. List the causes for sites not performing well in search</li> <li>17. Explain on-page optimization and its need in SEO</li> <li>18. Describe different techniques for achieving on-page optimization</li> <li>19. Explain the importance of keywords while developing Web site</li> <li>20. Explain the selection of keywords on the Web pages</li> <li>21. Explain the optimization of site structure</li> <li>22. Explain the significance of developing quality content</li> </ol>	<ol style="list-style-type: none"> <li>23. Explain the navigation structure for a Web site</li> <li>24. Explain the optimization of essential files such as robots.txt and sitemap.xml</li> <li>25. Describe off-page optimization techniques</li> <li>26. Explain different off-page optimization services</li> <li>27. List the guidelines for common off-page SEO mistakes</li> <li>28. Describe SEO localization</li> <li>29. Describe SEO internationalization</li> <li>30. Describe Social Media Optimization</li> <li>31. Describe the need for Search Engine Optimization (SEO) tools</li> <li>32. Describe various SEO tools and their functions</li> <li>33. Compare various SEO tools</li> <li>34. Explain how to analyze using different Google Optimization tools</li> <li>35. Describe the usage of various Google SEO tools</li> <li>36. Describe search engine marketing</li> <li>37. Compare types of search engine marketing</li> <li>38. Explain Google affiliate programs</li> <li>39. Compare Google AdWords and AdSense</li> <li>40. Explain search engine marketing strategies</li> <li>41. Explain mobile SEO</li> <li>42. Explain the technologies and tools used for development of mobile sites</li> <li>43. Explain mobile Sitemaps</li> <li>44. List the best practices for mobile SEO</li> </ol>

	<b>Project- PHP Web Application Development</b>	
<b>Documents Required:</b>	<ol style="list-style-type: none"><li>1. All educational certificates</li><li>2. Age proof</li><li>3. Residential address proof (Permanent and Current)</li><li>4. Two Passport size Photograph</li></ol>	
<b>Pay your fee Offline as well as Online, For Online Payment Scan QR Code</b>		