

QUALIFICATION FILE - CONTACT DETAILS OF THE SUBMITTING BODY

NATIONAL INSTITUTE OF ELECTRONICS AND INFORMATION TECHNOLOGY
NIELIT Bhawan, Plot No. 3, PSP Pocket, Sector-8,
Dwarka, New Delhi-110077

Name and address of submitting body:

NATIONAL INSTITUTE OF ELECTRONICS AND INFORMATION TECHNOLOGY
NIELIT Bhawan, Plot No. 3, PSP Pocket, Sector-8,
Dwarka, New Delhi-110077

Name and contact details of individual dealing with the submission

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List of documents submitted in support of the Qualifications File

1. Annexure I - Detailed Course Curriculum
2. Annexure-II- Evidence of Job/Requirement in industry
3. Annexure III - Industry Validations
4. Annexure IV - Lesson Plan

Model Curriculum to be added which will include the following:

- Indicative list of tools/equipment to conduct the training
Attached of Section 2 of Annexure-I
- Trainers' qualification
Attached of Section 3 of Annexure-I
- Lesson Plan
Attached of Annexure-IV
- Distribution of training duration into theory/practical/OJT component
 1. Theory- 90 Hours
 2. Practical- 120 Hours
 3. OJT component – NIL

SUMMARY

1. Qualification Title	Certified Web Developer
2. Qualification code, if any	--
3. NCO code and occupation	2166.0300
4. Nature and purpose of the qualification (Please specify whether the qualification is short term or long term)	Short Term Course
5. Body/bodies which will award the qualification	National Institute of Electronics and Information Technology, NIELIT Bhawan, Plot No. 3, PSP Pocket, Sector-8, Dwarka, New Delhi-110 077.
6. Body which will accredit providers to offer courses leading to the qualification	National Institute of Electronics and Information Technology, NIELIT Bhawan, Plot No. 3, PSP Pocket, Sector-8, Dwarka, New Delhi-110 077.
7. Whether accreditation/affiliation norms are already in place or not, if applicable (if yes, attach a copy)	Yes
8. Occupation(s) to which the qualification gives access	<ul style="list-style-type: none"> • PHP Developer • Web Application Developer • Back End Developer
9. Job description of the occupation	<p><u>Academic:</u></p> <p>After completion of the course student will be able to pursue <u>Microsoft Certified Solutions Developer (MCSD)</u>, Responsive Web Design Course, Server-Side Script Programming Which Combines Programming Languages with Database like Dot Net Java, and ASP with MySQL.’</p> <p>Candidates can start from level 4 and lead to further levels.</p>

	<p><u>Professional:</u></p> <p>The candidate will be able to do Client-side programming and scripting such as Web Site maintenance, Front end, Backend, and Database Developer. Further getting the exposure he/she may be able to do Server-Side Programming also.</p> <p>Web Developer is responsible for the coding, design, and layout of a website according to a company's specifications. As the role takes into consideration user experience and function, a certain level of both graphic design and computer programming is necessary</p>
10. Licensing requirements	<p>MS-Office Software License required.</p> <p>Text editor software (any One): Notepad++/Sublime text/ Visual Studio Code etc.</p> <p>Other Software: WAMP/LAMP/XAMP/MAMP etc</p>
11. Statutory and Regulatory requirements of the relevant sector (documentary evidence to be provided)	NA
12. Level of the qualification in the NSQF	03
13. Anticipated volume of training/learning required to complete the qualification	210 hours for both Theory and Practical Learning (4 months short term course)
14. Indicative list of training tools required to deliver this qualification	Windows / Linux operating system, Microsoft office, etc.

15.Entry requirements and/or recommendations and minimum age	<p>Eligibility:</p> <p>Final-year Polytechnic Diploma in CS/IT after class 10th</p> <p>Or</p> <p>2-Year ITI Certificate in IT/ITeS after class 10th</p> <p>Or</p> <p>12th pass</p>
16.Progression from the qualification (Please show Professional and academic progression)	<p><u>Academic:</u></p> <p>After completion of the course, students will be able to pursue Microsoft Certified Solutions Developer (MCSD), Responsive Web Design Course, Server-Side Script Programming Which Combines Programming Languages with Databases like Dot NET, Java, and ASP with MySQL.</p> <p>Candidates can start from level 3 and lead to further levels.</p> <p><u>Professional:</u></p> <p>The candidate will be able to do Client-side programming and scripting such as Web Site maintenance, Front end Developer. Further getting exposure he/she may be able to do Server-Side Programming also.</p>
17.Arrangements for the Recognition of Prior learning (RPL)	<p>As per minimum eligibility criteria RPL is not mandatory</p>
18. International comparability where known (research evidence to be provided)	<p>NA</p>

19. Date of planned review of the qualification		Every 5 Years	
20. Formal structure of the qualification Mandatory components			
	Title of component and identification code/NOSs /Learning outcomes	Estimated size (Learning hours)	Level
(i)	Introduction to the Internet to web Design	10	3
	HTML5	20	3
	CSS	20	3
	JavaScript	20	3
	Bootstrap	20	3
	Linux Introduction	10	3
	Server-side programming language PHP	50	3
	Database connectivity with PHP and MySQL (Linux/Window)	30	3
	Project on website Development	30	3
	Including Theory/ Lecture Hours / practical Hours	210	3
Sub Total (A)	210	3	
Optional Components			
	Title of component and identification code/NOSs Learning outcomes	Estimated size (Learning hours)	Level
		0	
	Sub Total (B)	0	

Total (A+B)	210	
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SECTION 1**ASSESSMENT**

21	<p>Body/Bodies which will carry out an assessment:</p> <p>The Examination Section:</p> <p>National Institute of Electronics and Information Technology</p> <p>NIELIT Bhawan, Plot No. 3, PSP Pocket, Sector-8,Dwarka, New Delhi-110077</p>
22	<p>How will RPL assessment be managed and who will carry it out?</p> <p>RPL Policy will be described as and when available</p>
23	<p>Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that the assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.</p> <p>ASSESSMENT GUIDELINE:</p> <p>The major point of concentration of the course is solely on practical skill enhancement of the candidate and testing his core skills based on rigorous performance criteria. Each Outcome is assessed and marked separately. Candidates must pass in all Outcomes individually and accordingly; marks are allotted for each Outcome. Following assessment, methodologies are adopted.</p> <ul style="list-style-type: none"> A. Written Assessment (Multiple Choice Questions) B. Practical Assessment C. Internal Assignment <p>The candidate's overall knowledge shall be tested based on a comprehensive written assessment. His practical skills shall be equally measured with a detailed practical assessment. The technical skills of the student and his ability to express himself shall be monitored vide internal Assignment.</p>

24. Assessment evidence

Outcomes to be assessed / NOSs to be assessed	Assessment criteria for the outcome	Estimate Learning Hours
1. Explain Internet Concept, Basics of Web Site	Learn to use the Internet and the basics of networking and recognize various Servers available. Recognize Various Browsers, also how the Client (i.e.) browser will communicate with the server using the internet	10
2. Learn to create a web page using HTML, CSS, JavaScript & Bootstraps	1- Understand the HTML tags & its element 2- Know the method to use CSS to HTML code 3- Able to create a responsive website using JavaScript and Bootstraps	80
3. Fundamental of Linux Operating System and Server-Side Development using PHP	1- Able to create PHP scripts & code blocks 2- Use Expression, function & operator 3- PHP Syntax and embedding in HTML 4- User Interface Design (UI) using HTML5 and PHP.	60
4. Practice concepts of Database Connectivity with PHP	Learn the Configure PHP and MySQL	30
5. Develop a simple project	Able to develop a simple project on website creation using the above learning techniques	30
Total Marks		210

Means of assessment

Learning Hours	NSQF Level	Theory			Practical		Internal Assessment (Marks)	Project / Presentation / Assignment (Marks)	Major Project. / Dissertation. (Marks)		Total
		Papers	No. of Ques (Q). / Paper	Marks /paper	Papers	Marks / Paper			No. of Projects.	Marks	
210	3	2 (T1 and T2)	100 Q for T1 and 100 Q for T2	100 marks for T1 and 100 marks for T2	1 (P)	90 marks	30 marks for (IA)	30 marks for (AS & P)	0	0	350

T1 (TP1): Theory paper 1

T2 (TP2): Theory paper 2

P (P): Practical paper comprising of 2 practical exams (P-1, P-2) 1 for each module.

IA: Internal Assessment

AS &P: Assignment

Examination Pattern

S. No	Examination Pattern	Modules Covered	Duration in Minutes	Maximum Marks
1	Theory Paper (TP1)– 1: Front End Web Development	1,2,3,4,5	90	100
2	Theory Paper (TP2) – 2: Database & Backend	6,7,8,9	90	100

	Development			
3	Practical (P) comprising of P-1, P-2, and P-3 for each of the respective modules.	1 to 10	180	90
4	Internal Assessment (IA)	1 to 10	-	30
5	Assignments	1 to 10	-	30
	Total			350

Project / Presentation / Assignment

From the option Project/Presentation/Assignment, it is proposed that an Assignment of 30 marks should be given to every student enrolled in the course (with 15marks each for each of the 2-part of the course). The detailed breakup of Assignment marks is given below:

S.no	Module Number	Marks
1	1 to 5 (Front End Developer Part)	15
2	6 to 10 (Back End Developer Part)	15
	Total	30

(Detailed Curriculum attached As Annexure-I)

Note

1. Pass percentage would be 50% marks in each component, with an aggregate pass percentage of 50% and above
2. Grading will be as under:

Grade	S	A	B	C	D
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Marks Range (in %)	$\geq 85\%$	$\geq 75\%$ and $< 85\%$	$\geq 65\%$ and $< 75\%$	$\geq 55\%$ and $< 65\%$	$\geq 50\%$ and $< 55\%$
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3. Theory examination would be conducted online and the paper comprises MCQ and each question will carry 1 mark
4. Practical examination/Internal Assessment/ Project/Presentation/Assignment would be evaluated internally
5. Project would be evaluated preferably by an External / Subject Expert including NIELIT Officials
6. Candidates may apply for re-examination within the validity of registration
7. The examinations would be conducted in English Language only.

NSQF QUALIFICATION FILE

SECTION 2

25. EVIDENCE OF LEVEL

OPTION A

Title/Name of qualification/component: Certified Web Developer			Level: 03
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relate to the NSQF level descriptors	NSQF Level
Process	Candidates can become more familiar with web development applications with the help of HTML, CSS, Java Script, PHP and MySQL. The theory and practical knowledge will provide knowledge on Web site creation and maintenance.	Work in a familiar, predictable, routine, situation of clear choice.	03
Professional Knowledge	The candidate will be able to do Client-side programming and scripting such as Web Site maintenance, Front end, Backend and database Developer. Further getting exposure he/she may be able to do Server-Side Programming also.	Factual knowledge of field of knowledge or study.	03
Professional	Web Developer is responsible for the coding, design and layout of a website according to a	Recall and demonstrate practical skill, routine and repetitive in narrow range of application, using	03

NSQF QUALIFICATION FILE

skill	company's specifications. As the role takes into consideration user experience and function, a certain level of both graphic design and computer programming is necessary.	appropriate rule and tool, using quality concepts	
Core skill	<ul style="list-style-type: none"> • To identify customer requirements and needs • Design UI with above requirements. • To refine preliminary design if necessary 	Language to communicate written or oral, with required clarity, skill to basic arithmetic and algebraic principles, basic understanding of social political and natural environment.	03
Responsibility	The candidate will be able to do Client-side programming and scripting such as Web Site maintenance, Front end Developer. Further getting exposure, he/she may be able to do Server-Side Programming or acts as a freelancer to develop websites.	Responsibility for own work and learning.	03

NSQF QUALIFICATION FILE

SECTION 3

EVIDENCE OF NEED

26	What evidence is there that the qualification is needed? What is the estimated uptake of this qualification and what is the basis of this estimate?	
	Need of the qualification	<p>This is a programming course that uses current industry standard tools to developed and operate the web-based application like create styled web pages, Graphical User Interfaces (GUIs), multi-page static/dynamic web sites, Content management system, Server side (back-end) devices and skills for developing database applications.</p> <p>Also, the contents have been designed such that a wide range of career options are possible for an individual after completing the course. He/she may be working as a front end or/and web-based developer.</p>
	Estimated uptake	Estimated about 200 candidates per year. Estimation is done on the basis of regular advertisements coming in different newspapers/websites about this skill.

27	Recommendation from the concerned Line Ministry of the Government/Regulatory Body. To be supported by documentary evidences
	NA
28	What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF? Give justification for presenting a duplicate qualification
	The Qualification does not exist as per information available in the public domain.
29	What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated? Specify the review process here
	<p>The Qualification is to be monitored and reviewed by Academic committee members for every two years. With the help of following inputs provided</p> <ol style="list-style-type: none">1. Results Analysis

NSQF QUALIFICATION FILE

	2. Employer Survey 3. Alumni Survey
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SECTION 4

EVIDENCE OF PROGRESSION

30	<p>What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?</p> <p>Show the career map here to reflect the clear progression</p> <p>Both Theory and analytics skills are acquired from this qualification, so that the student may upgrade them by taking further courses on advanced web designing. Source: http://www.webtechlearning.com/future-career-scope-of-web-designingcourse-in-india/ . Today the world is dominated by the web. Every business is now conducted globally using the web. In this digital world, the online presence on the web is very important for every organization to advertise, promote and sell their products and services to worldwide users. A candidate who will be learning about the basic of web designing which include HTML, CSS, Php, Photoshop, Dreamweaver, Word press, Joomla, and Magneto become a web developer.</p>
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