

**QUALIFICATION FILE TEMPLATE**

**NSDA REFERENCE**

*To be added by NSDA*

**QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY**

**Name and address of submitting body:**

NIELIT Patna,

11th Floor, Biscomaun Tower, Gandhi Maidan, Patna, pin-800001.

**Name and contact details of individual dealing with the submission**

**Name** Shri Alok Tripathi

**Position in the organisation** Director-i/C

**Address if different from above** NA

**Tel number(s)** 0612-2219134

**E-mail address** dir-patna@nielit.gov.in

**List of documents submitted in support of the Qualifications File**

1. Industry Validation (Annexure I)
2. Placement Records (Annexure I)
3. Detailed Curriculum (Annexure II)

SUMMARY

<b>Qualification Title:</b>	Certificate Course in Linux, Apache, MySQL and PHP.
<b>Qualification Code</b>	<b>NIELIT/WD/4/26</b>
<b>Nature and purpose of the qualification:</b>	<p><b>Nature:</b></p> <ul style="list-style-type: none"> <li>❖ Certificate Course which will help in employment.</li> </ul> <p><b>Purpose:</b></p> <ul style="list-style-type: none"> <li>❖ To get unemployed youth in work.</li> <li>❖ To upgrade the skills of people already in work in Web Development using open source technology.</li> <li>❖ Entrepreneurship development.</li> </ul>
<b>Body /bodies which will award the qualification:</b>	<b>Examination Cell,</b> National Institute of Electronics and Information Technology 6-CGO Complex, Electronics Niketan Lodhi Road, New Delhi. 110003.
<b>Body which will accredit providers to offer courses leading to the qualification:</b>	National Institute of Electronics and Information Technology 6-CGO Complex, Electronics Niketan Lodhi Road, New Delhi. 110003.
<b>Body /bodies which will Be responsible for assessment:</b>	National Institute of Electronics and Information Technology 6-CGO Complex, Electronics Niketan Lodhi Road, New Delhi. 110003.  Presently, Accreditation is not prescribed; affiliation is one of the models.
<b>Occupation(s) to which the qualification gives access:</b>	Web Developer.
<b>Licensing Requirements</b>	N/A
<b>Proposed level of the qualification in the NSQF</b>	Level-5
<b>Anticipated volume of training/learning required to complete the qualification</b>	80 Hours
<b>Entry requirements/ Recommendations</b>	B.E./B.Tech/NIELIT A Level/BCA or Its equivalent.
<b>Progression from the Qualification</b>	<p>Web Developer-Next Job Role-Next Job Role</p> <p>1) <u>In Academic</u></p> <p>After completion of this course, students can go for course that provide advance courses in Web Development like advance techniques of Apache and Php. Further they can opt for database administration using open source techniques. Many companies are providing initial breakthrough to freshers to join as a trainee intern. The trainee / interns could use experience gained while working in company as a platform to enhance</p>

## QUALIFICATIONFILETEMPLATE

	<p>their technical skills and achieve better jobs.</p> <p>2) <u>Professional</u></p> <p>During the initial stages of career candidate might work as a trainee / intern whose role would be to design the web site and program simple modules. After gaining sufficient experience and upgrading his technical qualifications he could develop more complicated module which can perform complex activities. Further candidate could communicate with the clients directly and can discuss/resolve various issues in web development.</p>
<b>Planned arrangements for RPL.</b>	<ul style="list-style-type: none"><li>❖ Presently only candidates who undergo training shall be assessed.</li><li>❖ Later on, candidate can appear for certification examination directly if they fulfil entry requirements.</li></ul>
<b>International Compatibility where Known.</b>	NA
<b>Date of Planned review of the Qualification</b>	After Every 2 Years

<b>Format Structure of the Qualification</b>			
<b>Title of Component and Identification Code</b>	<b>Mandatory/Optional</b>	<b>Estimated Size (Learning hours)</b>	<b>Level</b>
Configure Linux Operating System and Apache Web Server	M	10	4
Designing of Web Pages	M	08	4
Database Design	M	09	4
Implementation of a server side programming language PHP	M	33	5
Enhancing Communication Skills	M	10	4
Development of Small Module	M	10	5

Please attach any document giving further detail about the structure of the qualification-e.g. a Curriculum or Qualification Pack. Detail Curriculum attached at **Annexure III**.

**SECTION -1**

**ASSESSMENT**

**Name of Assessment body:**  
**Examination Cell,**  
 National Institute of Electronics and Information Technology  
 6-CGO Complex, Electronics Niketan  
 Lodhi Road, New Delhi. 110003.

**Name of body checking or verifying Assessments:**  
**Examination Cell,**  
 National Institute of Electronics and Information Technology  
 6-CGO Complex, Electronics Niketan  
 Lodhi Road, New Delhi. 110003.

*No accreditation norms for providers and assessment bodies required.*

**Name of Qualification Awarding body:**  
 National Institute of Electronics and Information Technology.

**Will the assessment body be responsible for the RPL assessment?**

Give details of how RPL assessment for the qualification will be carried out and quality assured.

Presently only candidates who undergo training shall be assessed. Later on, candidate can appear for certification examination directly if they fulfil entry requirements.

**Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of NSQF:**

The emphasis is on practical demonstration of skills & knowledge based on the performance criteria. Student is required to pass in all OUTCOMES individually and marks are allotted.

Following assessment methodologies are used.

The Following assessment methodologies are used.

- A. Written Assessment (Multiple Choice Questions)
- B. Practical Assessment & class Performance
- C. Project

The assessment results are backed by following evidences.

1. The assessor collects a copy of the attendance for the training done under the scheme. The attendance sheets are signed and stamped by the In-charge / Head of the Training Centre.
2. The assessor verifies the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central/Government. The same is mentioned in the attendance sheet.
3. The assessor assigns roll number.
4. The assessor takes photograph of all the students along with the assessor standing in the middle and with the centre name/banner at the back as evidence.

Please attach any documents giving further information about assessment and /or RPL.

### ASSESSMENT EVIDENCE

In this section, you are asked to show how the assessment tools you will use will cover all the outcomes and criteria in the qualification.

**Complete a grid for each component as listed in “Formal structure of the qualification” in the summary.**

**NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information –i.e. Learning Outcomes to be assessed, assessment criteria and the means of assessment.**

**Job Role**

Web Developer

**Title of Unit/Component:**

**(Detailed Curriculum attached as Annexure-III)**

Outcomes to be assessed	Assessment Criteria for the outcome	Means of Assessment			
		Total Marks	Written	Practical	Project
Explain Linux Operating System and Apache Web Server	Preparation of Platform for Web development using Linux, Apache, MySQL and Php.	05	02	03	NA
	Configuring Apache Web Server and MySQL Database Server	05	02	03	NA
	<b>Total Marks</b>	<b>10</b>	<b>04</b>	<b>06</b>	<b>NA</b>
Designing of Web Pages	Follow the procedure to design a web page	04	02	02	NA
	Applying Client side validations	04	02	02	NA
	Creating user forms and frames.	02	00	02	NA
	<b>Total Marks</b>	<b>10</b>	<b>04</b>	<b>06</b>	<b>NA</b>
Explain and practice Database Design	Design of database based on requirements	03	02	01	NA
	Design tables and their normalization.	03	02	01	NA

## QUALIFICATIONFILETEMPLATE

	Learn how to manipulate and update data.	02	00	02	NA
	Create views and implement security features on database.	02	01	01	NA
	<b>Total Marks</b>	<b>10</b>	<b>05</b>	<b>05</b>	<b>NA</b>
Implementation of a server side programming language PHP	Fundamental Software Development Skills.	02	02	00	NA
	Architecture of front-end application.	03	03	00	NA
	Follow procedure of Software Development with latest practices.	05	03	02	NA
	Explain how to use integrating application with backend database.	10	05	05	NA
	Follow procedure how to do server side validations.	10	05	05	NA
	Implementation of security features.	10	05	05	NA
	<b>Total Marks</b>	<b>40</b>	<b>23</b>	<b>17</b>	<b>NA</b>
Enhancing Communication Skills	Develop Communication Skill.	05	02	03	NA
	Preparation for Interview.	05	02	03	NA
	<b>Total Marks</b>	<b>10</b>	<b>04</b>	<b>06</b>	<b>NA</b>

## QUALIFICATIONFILETEMPLATE

Development of Small Module	Identify Module Requirements.	05	NA	NA	05
	Development of Module.	10	NA	NA	10
	Implementation of the Module.	05	NA	NA	05
	<b>Total Marks</b>	<b>20</b>	<b>NA</b>	<b>NA</b>	<b>20</b>
	<b>Grand Total</b>	100	40	40	20

### Means of Assessment:

Proctored online assessments (LAN and Web based), carried out using a variety of question formats applicable for the course.

### Pass/Fail

Following Grading Scheme (on the basis of total marks) will be followed:

Grade	S	A	B	C	D	Fail
Marks Range (in %)	85 to 100	75 to 84	65 to 74	55 to 64	50 to 54	Below 50



**SECTION 2**

**EVIDENCE OF LEVEL**

**Level of Qualification: 5**

**OPTION A**

Title/Name of Qualification/Component: Certificate Course in Linux, Apache, MySQL and PHP.			
<b>NSQF Domain</b>	<b>Outcomes of the Qualification/Component</b>	<b>How the Job role relates to the NSQF level descriptor</b>	<b>NSQF Level</b>
Process	<b>Configure Linux Operating System and Web Server</b>	In Learning Linux Operating System and Web Server configuration candidate carries out specialized technical skills for installing and configuring Linux Server, including Linux commands, shell- scripting and knowledge of various editors.  They will also learn broad range of networking skills/activities and clarity of knowledge for configuration of web server and virtual directories.	5
Professional Knowledge		After acquiring Professional Knowledge on Configuration of Linux Operating System and Web Server candidate will have sufficient knowledge of facts and principles adopted for configuration of servers.  They will acquire knowledge in field of Linux Operating system.	5
Professional Skill		After acquiring Professional skill on Configuration of Linux Operating System and Web Server candidate will have sufficient knowledge about cognitive and practical skills required to configure servers.	6
Core Skill		After acquiring Core skill on Configuration of Linux Operating System and Web Server candidate will learn mathematical calculations in (shell	6

		scripting). After acquiring knowledge about configuration of web server candidate will learn logical communication skills.	
Responsibility		After acquiring knowledge on Configuration of Linux Operating System and Web Server candidate will learn responsibility for own work and will learn how to help others in group.	5
Process	<b>Designing of Web Pages</b>	In Learning Designing of Web Pages candidate carries out specialized technical skills for web site designing techniques.  They will also learn broad range of knowledge for client side validation and form designing skills.	6
Professional Knowledge		After acquiring Professional Knowledge about Designing of Web Pages candidate will have all factual and theoretical knowledge regarding forms and client side validations.	6
Professional Skill		After acquiring Professional skill on Designing of Web Pages candidate will learn how to solve problems by applying basic validation concepts and form designing concepts.	5
Core Skill		After acquiring Core skill on Designing of Web Pages candidate will learn about data handling and presentation technique.  After acquiring knowledge about Client side validations in Web Designing candidate will learn logical concepts and logical communication.	6
Responsibility		After acquiring knowledge on Web Designing candidate will learn responsibility for own work and will learn how to help others in group.	5

Process	<b>Database Design</b>	In Learning Database Design candidate carries out specialized technical skills for Database Design and knowledge about normalization.  They will also learn about various practices of designing the database.	6
Professional Knowledge		After acquiring Professional Knowledge on Database Design candidate will have sufficient knowledge of factual and theoretical knowledge related to database design.	5
Professional Skill		After acquiring Professional skill on Database Design candidate will have sufficient knowledge about cognitive and practical skills required to design the database.	5
Core Skill		After acquiring Core skill on Database Design candidate will learn mathematical skills while using various MySQL functions.  After acquiring knowledge Database Design candidate will learn Data Collection Skills and organizing information.	5
Responsibility		After acquiring knowledge on Database Design candidate will learn responsibility for own work and will learn how to help others in group.	5
Process	<b>Implementation of a server side programming language PHP</b>	In Learning Implementation of a server side programming language PHP candidate carries out specialized technical skills for programming techniques. After completion of this Learning Outcome, they will have knowledge of wide range of programming techniques.  Candidate will be able to solve wide range of activities involving various standard and non-standard programming practices.	6

Professional Knowledge		<p>After acquiring Professional Knowledge on Implementation of a server side programming language PHP candidate will have broad practical and factual knowledge about programming techniques.</p> <p>They will acquire knowledge in latest techniques of programming in Php.</p>	6
Professional Skill		<p>After acquiring Professional skill on Implementation of a server side programming language PHP candidate will have sufficient knowledge about cognitive and practical skills required to generate solutions to various problems in programming.</p>	6
Core Skill		<p>After acquiring Core skill on Implementation of a server side programming language PHP candidate will learn mathematical calculations, techniques to develop various algorithms.</p> <p>After acquiring Core skill on Implementation of a server side programming language PHP candidate will learn the technique of data collection and representation. They will learn various logic development techniques.</p>	6
Responsibility		<p>After acquiring knowledge on Implementation of a server side programming language PHP candidate will learn responsibility for own work and will learn how to help others in group.</p>	5
Process	<b>Enhancing Communication Skills</b>	<p>In Learning Enhancing Communication Skills candidate carries out well developed skills for improving communication skills.</p> <p>They will also learn broad range of</p>	5

		techniques for appearing before interview board.	
Professional Knowledge		After acquiring Professional Knowledge on Enhancing Communication Skills candidate will have sufficient knowledge of facts and principles adopted for Enhancing Communication Skills.	5
Professional Skill		After acquiring Professional skill on Enhancing Communication Skills candidate will have sufficient knowledge about cognitive and practical skills required to enhance their communication skills.	5
Core Skill		After acquiring Core skill on Configuration of Linux Operating System and Web Server candidate will learn mathematical calculations in (shell scripting). After acquiring knowledge about configuration of web server candidate will learn logical communication skills.	5
Responsibility		After acquiring Professional skill on Enhancing Communication Skills candidate will learn responsibility for own work and will learn how to help others in group.	5
Process	<b>Development of Small Module</b>	In Development of Small Module candidate carries out well developed technique for programming with clear choice of procedures/functions/methodology to adopted in various situations.	5
Professional Knowledge		After acquiring Professional Knowledge on Development of Small Module candidate will have broad practical and factual knowledge about programming techniques.  They will acquire knowledge in latest techniques of programming in Php.	6

## QUALIFICATIONFILETEMPLATE

Professional Skill		After acquiring Professional skill on Development of Small Module candidate will have sufficient knowledge about cognitive and practical skills required to generate solutions to various problems in programming.	6
Core Skill		After acquiring Core skill on Development of Small Module candidate will learn mathematical calculations, techniques to develop various algorithms.  After acquiring Core skill on Development of Small Module candidate will learn the technique of data collection and representation. They will learn various logic development techniques.	6
Responsibility		After acquiring knowledge on Development of Small Module candidate will learn responsibility for own work and will learn how to help others in group.	5

### SECTION 3

#### EVIDENCE OF NEED

##### **What evidence is there that the qualification is needed?**

PHP developers are responsible for using their knowledge of coding and scripting languages to write concise, clean and well-documented code for websites, software or web applications.

Working in PHP development requires very strong math, logic, and analytical skills. Strong interpersonal and teamwork skills are also important, because PHP development work often takes place in a team environment.

As of January 2013, PHP was used in more than 240 million websites (39% of those sampled) and was installed on 2.1 million web servers

The employment outlook for computer software engineering, which includes PHP development, is excellent; the U.S. Bureau of Labour Statistics (BLS) projects employment of software developers will grow by 17% from 2014-2024. Information from payscale.com shows that PHP developers earned a median salary of \$59,898 as of January 2016.

In addition to writing code, PHP developers may also design website wireframes and layouts, work with online databases, test websites for technical problems and provide advice to a team of web designers and developer so to learn LAMP qualification is needed.

Source:

<https://w3techs.com/technologies/>

<https://bls.gov>

[http://study.com/articles/PHP\\_Developer\\_Job\\_Info\\_and\\_Requirements\\_for\\_a\\_Career\\_as\\_a\\_PHP\\_Developer.html](http://study.com/articles/PHP_Developer_Job_Info_and_Requirements_for_a_Career_as_a_PHP_Developer.html)

### **What is estimated uptake of this qualification and what is the basis of this estimate?**

On an average estimated uptake of this qualification will vary as per demand in Industry. Perhaps, estimated uptake on the basis of current scenario is 500 to 600 per year. Basis of this estimate is current average count of enrolments in Php Course in all NIELIT Centres.

### **What steps were taken to ensure the qualification (s) does/do not duplicate already existing or planned qualification in the NSQF?**

The Qualification does not exist as per information available in public domain.

### **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 update?**

The Qualification is to be monitored and reviewed every two years. The following data will be used

- ❖ Results of assessments
- ❖ Employer feedback regarding student skill after conducting a placement drive
- ❖ Employer feedback will be sought post-placement
- ❖ Student feedbacks
- ❖ Workshops and seminar for reviewing the qualifications
- ❖ Consultation/ Tie-up with Industries or Expert for review of the Curriculum so as to meet the changing pace of technology and Industry requirements.

**Please attach any documents giving further information about any of the topics above.: NIL**

## **SECTION 4**

### **EVIDENCE OF PROGRESSION**

#### **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 the sector?**

This qualification comprises both technical and analytical skills and can be linked to any qualification higher than this one, existing or to come.

#### **Opportunity for Php Developer to venture into more advanced courses or to start their own business.**

After successful completion of this course a candidate can choose for either advanced course in Php or they can start their own business for web based solutions. In addition to

this as per industry requirement they may be hired as a Php developer.  
Please attach any documents giving further information about any of the topics above: **NA**

**SECTION 5**

**EVIDENCE OF INTERNATIONAL COMPARABILITY**

**List any Comparisons which have been established**

**1. Website Development using Php and MySQL.**

Martin School of Web design Sydney is a leading institute providing Diploma in Website Development using Php and MySQL.

(Source: <http://www.martin.edu.au>)

**2. Zend Certified Engineer**

Zend PHP Certification is an industry-wide standard that recognizes PHP expertise and is a measure of distinction that employers use to evaluate prospective employees.

(Source: <http://www.zend.com/en/services/certification/php-5-certification>)



