EDUSUM
#1 Online Certification Guide

LPI 030-100

LPI Development Essentials Certification Questions & Answers

Exam Summary – Syllabus –Questions

030-100
LPI Development Essentials
40 Questions Exam – 500 / 800% Cut Score – Duration of 60 minutes

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Know Your 030-100 Certification Well:

The 030-100 is best suitable for candidates who want to gain knowledge in the LPI Development Essentials. Before you start your 030-100 preparation you may struggle to get all the crucial Development Essentials materials like 030-100 syllabus, sample questions, study guide.

But don't worry the 030-100 PDF is here to help you prepare in a stress free manner.

The PDF is a combination of all your queries like-
- What is in the 030-100 syllabus?
- How many questions are there in the 030-100 exam?
- Which Practice test would help me to pass the 030-100 exam at the first attempt?

Passing the 030-100 exam makes you LPI Development Essentials. Having the Development Essentials certification opens multiple opportunities for you. You can grab a new job, get a higher salary or simply get recognition within your current organization.

LPI 030-100 Development Essentials Certification Details:

Exam Name	LPI Development Essentials
Exam Code	030-100
Exam Price	$120 (USD)
Duration	60 mins
Number of Questions	40
Passing Score	500 / 800
Books / Training	**Web Development Essentials**
Schedule Exam	**Pearson VUE**
Sample Questions	**LPI Development Essentials Sample Questions**
Practice Exam	**LPI 030-100 Certification Practice Exam**

030-100 Syllabus:

Topic	Details
	Software Development and Web Technologies
Software Development Basics	**Weight:** 1 **Description:** The candidate should be familiar with the most essential concepts of software development and be aware of important programming languages. **Key Knowledge Areas:** • Understand what source code is • Understand the principles of compilers and interpreters • Understand the concept of libraries • Understand the concepts of functional, procedural and object-oriented programming • Awareness of common features of source code editors and integrated development environments (IDE) • Awareness of version control systems • Awareness of software testing • Awareness of important programming languages (C, C++, C#, Java, JavaScript, Python, PHP)
Web Application Architecture	**Weight:** 2 **Description:** The candidate should understand common standards in web development technology and architecture. **Key Knowledge Areas:** • Understand the principle of client and server computing • Understand the role of web browsers and be aware of commonly used web browsers • Understand the role of web servers and application servers • Understand common web development technologies and standards • Understand the principles of APIs • Understand the principle of relational and non-relational

Topic	Details
	(NoSQL) databases
	• Awareness of commonly used open source database management systems
	• Awareness of REST and GraphQL
	• Awareness of single-page applications
	• Awareness of web application packaging
	• Awareness of WebAssembly
	• Awareness of content management systems
	Files, terms, and utilities:
	• Chrome, Edge, Firefox, Safari, Internet Explorer
	• HTML, CSS, JavaScript
	• SQLite, MySQL, MariaDB, PostgreSQL
	• MongoDB, CouchDB, Redis
HTTP Basics	**Weight:** 3
	Description: The candidate should be familiar with the basics of HTTP. This includes understanding HTTP headers, content types, caching, and status codes. Furthermore, the candidate should understand the principles of cookies and their role for session handling and be aware of advanced HTTP features.
	Key Knowledge Areas:
	• Understand HTTP GET and POST methods, status codes, headers and content types
	• Understand the difference between static and dynamic content
	• Understand HTTP URLs
	• Understand how HTTP URLs are mapped to file system paths
	• Upload files to a web server's document root
	• Understand caching
	• Understand cookies
	• Awareness of sessions and session hijacking
	• Awareness of commonly used HTTP servers

Topic	Details
	• Awareness of HTTPS and TLS • Awareness of web sockets • Awareness of virtual hosts • Awareness of common HTTP servers • Awareness of network bandwidth and latency requirements and limitations **Files, terms, and utilities:** • GET, POST • 200, 301, 302, 401, 403, 404, 500 • Apache HTTP Server ("httpd"), NGINX
HTML Document Markup	
• HTML Docume nt Anatomy	• **Weight:** 2 • **Description:** The candidate should understand the anatomy and syntax of an HTML document. This includes creating basic HTML documents. • **Key Knowledge Areas:** • Create a simple HTML document • Understand the role of HTML • Understand the HTML skeleton • Understand the HTML syntax (tags, attributes, comments) • Understand the HTML head • Understand meta tags • Understand character encoding • **Files, terms, and utilities:** • <!DOCTYPE html> • <html> • <head> • <body> • <meta>, including the charset (UTF-8), name and content attributes
HTML Semantics and	**Weight:** 2

Topic	Details

Document Hierarchy	**Description:** The candidate should be able to create HTML documents with a semantic structure.
	
	Key Knowledge Areas:
	
	• Create markup for contents in an HTML document
	• Understand the hierarchical HTML text structure
	• Differentiate between block and inline HTML elements
	• Understand important semantic structural HTML elements
	
	Files, terms, and utilities:
	
	• <h1>, <h2>, <h3>, <h4>, <h5>, <h6>
	• <p>
	• , ,
	• <dl>, <dt>, <dd>
	• <pre>
	• <blockquote>
	• <strong>, <em>, <code>
	• <b>, <i>, <u>
	• <span>
	• <div>
	• <main>, <header>, <nav>, <section>, <footer>

HTML References and Embedded Resources	**Weight:** 2 **Description:** The candidate should be able to link an HTML document with other documents and embed external content, such as images, videos and audio in an HTML document. **Key Knowledge Areas:** • Create links to external resources and page anchors • Add images to HTML documents • Understand key properties of common media file formats, inlcuding PNG, JPG and SVG • Awareness of iframes

Topic	Details
	Files, terms, and utilities: • id attribute • <a>, including the href and target (_blank, _self, _parent, _top) attributes • <img>, including the src and alt attributes
HTML Forms	**Weight:** 2 **Description:** The candidate should be able to create simple HTML forms containing input elements of various types. **Key Knowledge Areas:** • Create simple HTML forms • Understand HTML form methods • Understand HTML input elements and types **Files, terms, and utilities:** • <form>, including the method (get, post), action, and enctype attributes • <input>, including the type (text, email, password, number, date, file, range, radio, checkbox, hidden) attribute • <button>, including the type (submit, reset, hidden, button) attribute • <textarea> • common form element attributes (name, value, id) • <label>, including the for attribute
	CSS Content Styling
• CSS Basics	• **Weight:** 1 • **Description:** The candidate should understand the various ways to style an HTML document using CSS. This includes the structure and syntax of CSS rules. • **Key Knowledge Areas:** • Embedding CSS within an HTML document • Understand the CSS syntax

Topic	Details
	• Add comments to CSS • Awareness of accessibility features and requirements • **Files, terms, and utilities:** • HTML style and type (text/css) attributes • \<style> • \<link>, including the rel (stylesheet), type (text/css) and src attributes • ; • /*,*/
CSS Selectors and Style Application	**Weight:** 3 **Description:** The candidate should be able to use selectors in CSS and understand how CSS rules are applied to elements within an HTML document. **Key Knowledge Areas:** • Use selectors to apply CSS rules to elements • Understand CSS pseudo-classes • Understand rule order and precedence in CSS • Understand inheritance in CSS **Files, terms, and utilities:** • element; .class; #id • a, b; a.class; a b; • :hover, :focus • !important
CSS Styling	**Weight:** 2 **Description:** The candidate should use CSS to add simple styles to the elements of an HTML document. **Key Knowledge Areas:** • Understand fundamental CSS properties • Understand units commonly used in CSS

Topic	Details
	Files, terms, and utilities: • px, %, em, rem, vw, vh • color, background, background-*, font, font-*, text-*, list-style, line-height
CSS Box Model and Layout	**Weight:** 2 **Description:** The candidate should understand the CSS box model. This includes defining the position of elements on a website. Additionally, the candidate should understand the document flow. **Key Knowledge Areas:** • Define the dimension, position and alignment of elements in a CSS layout • Specify how text flows around other elements • Understand the document flow • Awareness of the CSS grid • Awareness of responsive web design • Awareness of CSS media queries **Files, terms, and utilities:** • width, height, padding, padding-*, margin, margin-*, border, border-* • top, left, right, bottom • display: block | inline | flex | inline-flex | none • position: static | relative | absolute | fixed | sticky • float: left | right | none • clear: left | right | both | none
	JavaScript Programming
JavaScript Execution and Syntax	**Weight:** 1 **Description:** The candidate should be able to execute JavaScript files and inline code from an HTML document and understand basic JavaScript syntax.

Topic	Details
	Key Knowledge Areas: • Run JavaScript within an HTML document • Understand the JavaScript syntax • Add comments to JavaScript code • Access the JavaScript console • Write to the JavaScript console **Files, terms, and utilities:** • <script>, including the type (text/javascript) and src attributes • ; • //, /* */ • console.log
JavaScript Data Structures	**Weight:** 3 **Description:** The candidate should be able to use variables in JavaScript code. This includes understanding values and data types. Furthermore, the candidate should understand assignment operators and type conversion and be aware of variable scope. **Key Knowledge Areas:** • Define and use variables and constants • Understand data types • Understand type conversion/coercion • Understand arrays and objects • Awareness of the variable scope **Files, terms, and utilities:** • =, +, -, *, /, %, −, ++, +=, -=, *=, /= • var, let, const • boolean, number, string, symbol • array, object • undefined, null, NaN
JavaScript Control	**Weight:** 4 **Description:** The candidate should be able to use control

Topic	Details
Structures and Functions	structures in JavaScript code. This includes using comparison operators. Furthermore, the candidate should be able to write simple functions and understand function parameters and return values. **Key Knowledge Areas:** • Understand truthy and falsy values • Understand comparison operators • Understand the difference between loose and strict comparison • Use conditionals • Use loops • Define custom functions **Files, terms, and utilities:** • if, else if, else • switch, case, break • for, while, break, continue • function, return • ==, !=, <, <=, >, >= • ===, !==
JavaScript Manipulation of Website Content and Styling	**Weight:** 2 **Description:** The candidate should understand the HTML DOM. This includes manipulating HTML elements and CSS properties through the DOM using JavaScript as well as using DOM events in simple scenarios. **Key Knowledge Areas:** • Understand the concept and structure of the DOM • Change the contents and properties of HTML elements through the DOM • Change the CSS styling of HTML elements through the DOM • Trigger JavaScript functions from HTML elements

Topic	Details
	Files, terms, and utilities: • document.getElementById(), document.getElementsByClassName(), document.getElementsByTagName(),document.querySelector(), document.querySelectorAll() • innerHTML, setAttribute(), removeAttribute() properties and methods of DOM elements • classList, classList.add(), classList.remove(), classList.toggle() properties and methods of DOM elements • onClick, onMouseOver, onMouseOut attributes of HTML elements
	NodeJS Server Programming
NodeJS Basics	**Weight:** 1 **Description:** The candidate should understand the basics of NodeJS. This includes running a local development server as well as understanding the concept of NPM modules. **Key Knowledge Areas:** • Understand the concepts of Node.js • Run a NodeJS application • Install NPM packages **Files, terms, and utilities:** • node [file.js] • npm init • npm install [module_name] • package.json • node_modules
NodeJS Express Basics	**Weight:** 4 **Description:** The candidate should be able to create a simple dynamic website with the Express web framework. This includes defining simple Express routes as well as serving dynamic files

Topic	Details
	through the template engine EJS. **Key Knowledge Areas:** • Define routes to static files and EJS templates • Serve static files through Express • Serve EJS templates through Express • Create simple, non-nested EJS templates • Use the request object to access HTTP GET and POST parameters and process data submitted through HTML forms • Awareness of user input validation • Awareness of cross-site Scripting (XSS) • Awareness of cross-site request forgery (CSRF) **Files, terms, and utilities:** • express and body-parser node module • Express app object • app.get(), app.post() • res.query, res.body • ejs node module • res.render() • <% … %>, <%= … %>, <%# … %>, <%- … %> • views/
SQL Basics	**Weight:** 3 **Description:** The candidate should be able to create individual tables in an SQLite database and add, modify and delete data using SQL. Furthermore, the candidate should be able to retrieve data from individual tables and execute SQL queries from NodeJS. This does not include referencing or combining data between multiple tables. **Key Knowledge Areas:** • Establish a database connection from NodeJS • Retrieve data from the database in NodeJS • Execute SQL queries from NodeJS

Topic	Details
	• Create simple SQL queries excluding joins • Understand primary keys • Escape variables used in SQL queries • Awareness of SQL injections **Files, terms, and utilities:** • sqlite3 NPM module • Database.run(), Database.close(), Database.all(), Database.get(), Database.each() • CREATE TABLE • INSERT, SELECT, DELETE, UPDATE

LPI 030-100 Sample Questions:

Question: 1

In the context of web content, how do static and dynamic content differ?

a) Static content is served from a database, while dynamic content is served from a file system.
b) Static content is the same for all users, while dynamic content can change based on user interaction.
c) Static content is used for web applications, while dynamic content is used for websites.
d) Static content is cached by the browser, while dynamic content is not.

Answer: b

Question: 2

What are essential features of source code editors and Integrated Development Environments (IDEs)?
(Choose two)

a) Ability to compile and execute code
b) Built-in web browser for testing web applications
c) Syntax highlighting and code completion
d) Network monitoring for security analysis

Answer: a, c

Question: 3

To update data in a table, which SQL command should be used?

a) MODIFY
b) CHANGE
c) UPDATE
d) ALTER

Answer: c

Question: 4

Which of these are commonly used open source database management systems?
(Choose two)

a) Microsoft SQL Server
b) Oracle Database
c) MySQL
d) PostgreSQL

Answer: c, d

Question: 5

When creating links to page anchors in HTML, which attribute specifies the section of the page to link to?

a) href
b) src
c) name
d) target

Answer: a

Question: 6

For embedding audio files in HTML, which of the following elements is appropriate?

a) <img>
b) <audio>
c) <video>
d) <iframe>

Answer: b

Question: 7

In CSS, what are media queries primarily used for?

a) To create different styles for different media types and screen sizes
b) To add media content like video and audio
c) To query and retrieve media files from the server
d) To automatically play media files on a webpage

Answer: a

Question: 8

Which of the following are valid input types in HTML?

(Choose two)

a) date
b) file
c) upload
d) image

Answer: a, b

Question: 9

What is a common way to protect against Cross-Site Scripting (XSS) in a Node.js application?

a) Implementing HTTPS
b) Using prepared SQL statements
c) Disabling cookies
d) Sanitizing user input

Answer: d

Question: 10

How are HTTP URLs typically mapped to file system paths on a web server?

a) Through the server's firewall settings
b) By using the Domain Name System (DNS)
c) According to the server's directory structure and configuration files
d) By encrypting the URL into a file path

Answer: c

Study Guide to Crack LPI Development Essentials 030-100 Exam:

- Getting details of the 030-100 syllabus, is the first step of a study plan. This pdf is going to be of ultimate help. Completion of the syllabus is must to pass the 030-100 exam.
- Making a schedule is vital. A structured method of preparation leads to success. A candidate must plan his schedule and follow it rigorously to attain success.
- Joining the LPI provided training for 030-100 exam could be of much help. If there is specific training for the exam, you can discover it from the link above.
- Read from the 030-100 sample questions to gain your idea about the actual exam questions. In this PDF useful sample questions are provided to make your exam preparation easy.
- Practicing on 030-100 practice tests is must. Continuous practice will make you an expert in all syllabus areas.

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