Web Development Full Stack 1st edition Coller Test Bank

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Name:_____ Class:_____ Date:_____

Chapter 01: How Does the Web Work?

1. Imagine that you have opened a web browser, typed in a URL, and pressed the Enter key. What does the browser do next?

a. renders data from a web server into a webpage
b. stores certain pieces of information for future use and reloading efficiency
c. translates the URL into a fetch request and sends the request to a web server
d. presents a user interface on the monitor

ANSWER: c

2. A web browser provides tools such as a text box for entering a web address and buttons for moving backward or forward or reloading a page through its _____.

a. GUI
b. DNS
c. URL
d. IP

ANSWER: a

3. How does a browser make a GET request?

a. It sends an IP address to a Domain Name System server.
b. It issues a ping command to a certain IP address.
c. It sends an HTML file to a web server.
d. It sends an HTTP message to the web server at a certain IP address.

ANSWER: d

4. After making a fetch request for a webpage, a browser receives a response from a web server _____.

a. that is always the same, regardless of the browser's user or situation
b. as a series of data packets that the browser reassembles as they arrive
c. as a single HTML file whose loading speed is determined by its size
d. that has incorporated data from a database into page content to create a static webpage

ANSWER: b

5. The browser's first action when reconstructing a webpage is to load the outermost DOM object by finding the pair of ____ tags.

a. `<html>` and `</html>`
b. `<title>` and `</title>`
c. `<head>` and `</head>`
d. `<p>` and `</p>`

ANSWER: a

6. Browsers store data during the loading or parsing of a webpage _____.

a. instead of using cookies
b. to avoid wasting network resources by repeatedly retrieving the same content
c. to create a permanent record of the user's browsing activity
d. to reduce their cache sizes

ANSWER: b

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7. Web browser developers must keep abreast of decisions made by the World Wide Web Consortium because _____.
   a. popular browsers in today's market follow several different sets of browser standards
   b. this organization approves unique browser specifications developed by technology companies
   c. users of the Internet prefer the proprietary browsers developed by this private technology company
   d. this organization makes widely followed rules for how web servers and web browsers should communicate

ANSWER: d

8. Which of the following browsers is *not* one of the four that are most commonly used?
   a. Google Chrome
   b. Apple Safari
   c. Microsoft Internet Explorer
   d. Mozilla Firefox

ANSWER: c

9. A full stack web developer needs to know enough about how a browser works to _____.
   a. restore a user's Internet connectivity
   b. reboot a web server that has gone down due to a power outage
   c. diagnose the source of failure when a webpage isn't loading or rendering properly
   d. write the code for a new web browser

ANSWER: c

10. The most popular search engine crawls and analyzes webpages using self-contained applications called _____.
   a. databases
   b. Googlebots
   c. content management systems
   d. indexes

ANSWER: b

11. A key purpose of search engine optimization is _____.
   a. to create and update websites in an automated way
   b. reducing visibility to increase security
   c. creating artificial site popularity
   d. to improve a webpage's ranking in an index database

ANSWER: d

12. Google's published rules regarding how it selects and ranks pages in a search result set indicate that a web developer who wishes to achieve SEO should _____.
   a. use valid HTML and test it in several browsers
   b. not request that Google crawl their website directly
   c. design their page content specifically for crawling by Google
   d. add webpages filled with keywords that boost their relevance

ANSWER: a

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13. The Apache web server _____.
    a. was originally designed to run on the Linux/Unix operating systems
    b. is currently available in releases for Mac OS but not for Windows
    c. accounts for nearly 90% of the web servers used today
    d. project began as an open source collaboration in 1980

ANSWER: a

14. When an Apache web server responds to an incoming request from the Internet, it _____.
    a. must access the operating system directories on its physical or virtual computer host
    b. typically must do so without accessing any directories on its physical computer host
    c. always returns the default index or home page from a web-accessible directory
    d. can access only those directories the server administrator has granted it access to

ANSWER: d

15. When a web server receives an incoming request from the network for a specific static page and is able to locate that page, the server next _____.
    a. sends back the page's HTML file in its entirety in response to the request
    b. deconstructs the text of the page's HTML into a series of data packets
    c. searches any other directories in the home folder for the HTML page
    d. responds by returning either the default index page or a 404 message

ANSWER: b

16. Which of the following services does a web hosting service provide?
    a. HTML file creation and organization
    b. control of the directory of the Internet
    c. rental of storage space on a server
    d. webpage testing/quality assurance

ANSWER: c

17. When an Apache web server receives a request for a file with the .php extension it _____.
    a. returns the code in the requested file to the web browser
    b. recognizes that the webpage being requested requires processing before it is returned
    c. first encrypts the requested .php file, then returns it to the web browser
    d. returns a 404 message to the web browser

ANSWER: b

18. One of the web server's roles in delivering a dynamic webpage created with the PHP language is _____.
    a. locating the requested .php file and handing it off to the PHP engine
    b. performing database queries to retrieve information needed to display the page
    c. creating HTML elements for the page and inserting appropriate data into them
    d. sending the requested .php file in its entirely as a response to the browser

ANSWER: a

19. Suppose a browser displays an HTML form to the user, and then the user fills in the form and clicks the Submit

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button. What does the browser do next?

a. asks the web server for a webpage
b. stores data entered into the form in a database
c. sends a POST request to the web server
d. sends a GET request to the web server

ANSWER: c

20. To become a successful full stack web developer, you must gain skills programming in _____.

a. Rust, Go, and C
b. Python, SQL, and R
c. CMS, IP, and HTTP
d. HTML, CSS, and JavaScript

ANSWER: d

21. When a full stack developer is assigned a new website development project, what should that developer do first?

a. create a project plan, including a site map, page mockups, and technology stack
b. initiate the web development cycle for the project
c. gather requirements by asking about the business goals, timeframe, budget, and other factors
d. begin writing and unit testing code for the site's webpages

ANSWER: c

22. Business analysts _____.

a. synthesize opinions of a website's users into documentation of what that site should look like
b. help project team members stay up to date on deliverables and within budget
c. facilitate meetings related to a website project among groups
d. assist project team members by connecting them with needed resources

ANSWER: a

23. Waterfall project management is most appropriate for _____.

a. new software product development
b. small teams of developers
c. customers still establishing their business processes
d. large or complex projects

ANSWER: b

24. WordPress _____.

a. requires greater effort in producing raw HTML and CSS as compared to text editors
b. is configured and operated through interaction at the command line
c. is typically used to expedite the back-end development of a website
d. provides an efficiency of scale for web applications with many static HTML pages

ANSWER: d

25. An interpreted programming language _____.

a. must be compiled into executable machine code before it is run

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b. is typically slow for web developers to write and modify
c. should not be used to create dynamic webpages
d. uses a web server's processing power to execute code directly from a webpage

ANSWER: d

26. Software built to create an interaction point between a database and a set of dynamic webpages that need to pull data from or send data to the database is called a(n) _____.
a. Uniform Resource Locator
b. Document Object Model
c. Application Programming Interface
d. Cascading Style Sheet

ANSWER: c

27. Why might a large corporation choose to use a compiled programming language for the code on their web servers?
a. Preparing compiled code for the server requires fewer steps than preparing interpreted code.
b. Compiled code (machine language) runs faster on the server than interpreted languages do.
c. The use of a compiled language is a more complex strategy than the use of an interpreted language.
d. Using compiled code reduces the number of software applications developers use to build websites.

ANSWER: b

28. Which type of software allows multiple developers to write and revise code in parallel and to step backward to a previous state of the code when necessary?
a. version control
b. JSON
c. database
d. project management

ANSWER: a

29. MySQL, MongoDB, and Oracle are popular choices for which software component used in full stack web development?
a. back end
b. version control
c. project management
d. database

ANSWER: d

30. The global network of servers that each keep a copy of the database of all known human-friendly web addresses and their corresponding IP addresses is called the DNS.
a. True
b. False

ANSWER: True

31. A browser's rendering engine uses the HTML JSON to reconstruct a webpage as it receives content from a server.
a. True
b. False

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ANSWER: False

32. According to Google's documentation, developers can optimize their webpages for its search engine by building useful pages composed of important content for humans to read or hear.
    a. True
    b. False

ANSWER: True

33. The Apache web server's internal plumbing is very different from that of other popular web servers.
    a. True
    b. False

ANSWER: False

34. When a webpage depends on linked CSS and JavaScript files, the web server sends all of these files to the browser in response to the browser's initial request for the webpage.
    a. True
    b. False

ANSWER: False

35. When the PHP engine processes a dynamic webpage, it begins by creating the top portion of a valid HTML page, including any links to associated CSS and JavaScript documents.
    a. True
    b. False

ANSWER: True

36. A browser creates a POST request to send data to the URL of a web server as a string of key-value pairs.
    a. True
    b. False

ANSWER: True

37. When you are starting a new website development project, beginning by writing the code for one of the site's key components saves many intellectual dead ends and mistaken false starts while encouraging the right people and technology to collaborate.
    a. True
    b. False

ANSWER: False

38. Project managers serve as professional planners, and often are not involved in writing or testing code for the projects they work on.
    a. True
    b. False

ANSWER: True

39. When you want to use the same set of data to build multiple dynamic webpages, it is efficient to build an API that makes the required set of procedure calls to the database and then connect each webpage to the API.
    a. True

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b. False

ANSWER: True

40. Using API software allows a full stack developer to ensure the availability of their code regardless of hardware failures, to respond to changes in project requirements, and to create a common space to develop in parallel with colleagues.

a. True

b. False

ANSWER: False

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