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**Marks** 14.00/15.00

**Grade** 93.33 out of 100.00

### Question 1

Complete

Mark 1.00 out of 1.00

What does `--` in an SQL Injection attack do?

- ☐ a. Increases query execution speed
- ☒ b. Comments out the rest of the SQL query
- ☐ c. Adds an additional condition to the query
- ☐ d. Encrypts user input

### Question 2

Complete

Mark 1.00 out of 1.00

Why does this React component not execute XSS payloads?

- ☒ a. React automatically escapes input to prevent script execution
- ☐ b. The browser blocks all inline scripts by default
- ☐ c. dangerouslySetInnerHTML is required to execute scripts
- ☐ d. The comment data is stored in a secure database

### Question 3

Complete

Mark 1.00 out of 1.00

How can a developer protect against XSS attacks in a MERN stack app?

- ☐ a. Use dangerouslySetInnerHTML without sanitization
- ☐ b. Use inline JavaScript to filter malicious code
- ☒ c. Sanitize user input using DOMPurify or server-side escaping
- ☐ d. Allow script execution inside innerHTML

**Question 4**

Complete

Mark 1.00 out of 1.00

What is the most common way to fix XSS vulnerabilities?

- ☐ a. Storing scripts in the database
- ☐ b. Using JavaScript's eval() function
- ☐ c. Allowing only admin users to enter scripts
- ☒ d. Using DOMPurify to sanitize user input

**Question 5**

Complete

Mark 1.00 out of 1.00

Which of the following XSS payloads is most likely to bypass filtering?

- ☐ a. <iframe src=javascript:alert('XSS')>
- ☒ b. All of the above
- ☐ c. <img src=x onerror=alert('XSS')>
- ☐ d. <script>alert('XSS')</script>

**Question 6**

Complete

Mark 1.00 out of 1.00

Which payload can be used to bypass authentication in an SQL injection attack?

- ☐ a. '; SELECT \* FROM passwords;
- ☐ b. ' OR username='admin' AND password='admin';
- ☒ c. ' OR 1=1 --
- ☐ d. ' AND DROP TABLE users;

**Question 7**

Complete

Mark 1.00 out of 1.00

Which of the following SQL queries is vulnerable to SQL Injection?

- ☒ a. SELECT \* FROM users WHERE username = "" + user\_input + "" AND password = "" + pass\_input + "";
- ☐ b. SELECT \* FROM users WHERE username = 'admin' AND password = 'admin';
- ☐ c. PREPARE stmt FROM 'SELECT \* FROM users WHERE username = ? AND password = ?';
- ☐ d. SELECT \* FROM users WHERE username = ? AND password = ?;

**Question 8**

Complete

Mark 1.00 out of 1.00

What is the main difference between SQL Injection and XSS?

- ☒ a. SQL Injection targets databases, while XSS targets browsers
- ☐ b. SQL Injection is always more dangerous than XSS
- ☐ c. Both are prevented using the same techniques
- ☐ d. XSS can modify SQL databases

**Question 9**

Complete

Mark 1.00 out of 1.00

How does the fixed version of the XSS Demo prevent XSS?

- ☐ a. By blocking all comments containing <script>
- ☐ b. By only allowing administrators to post comments
- ☐ c. By encoding all data before storing it
- ☒ d. By using DOMPurify to sanitize both input and output

**Question 10**

Complete

Mark 1.00 out of 1.00

What is SQL Injection?

- ☐ a. A way to encrypt SQL queries
- ☐ b. A tool to optimize database performance
- ☐ c. A method to securely access a database
- ☒ d. A technique used to bypass authentication and manipulate database queries

**Question 11**

Complete

Mark 1.00 out of 1.00

What is the best way to protect a Node.js MySQL database from SQL Injection?

- ☐ a. Validate user input with client-side JavaScript only
- ☐ b. Store passwords in plain text for easy authentication
- ☐ c. Use eval() to sanitize user input
- ☒ d. Use prepared statements and parameterized queries

**Question 12**

Complete

Mark 0.00 out of 1.00

Which of the following is NOT a way to prevent SQL Injection?

- ☒ a. Using ORMs like Sequelize or Mongoose
- ☐ b. Using Prepared Statements
- ☐ c. Escaping user input before using it in a query
- ☐ d. Using DOMPurify for sanitization

**Question 13**

Complete

Mark 1.00 out of 1.00

What additional security measures can prevent XSS attacks?

- ☐ a. Content Security Policy (CSP)
- ☐ b. Sanitizing user input before storing it
- ☐ c. Escaping special characters (<, >)
- ☒ d. All of the above

**Question 14**

Complete

Mark 1.00 out of 1.00

Which of the following best describes Stored XSS?

- ☐ a. XSS that only works on outdated browsers
- ☐ b. A script is executed immediately when injected
- ☐ c. A script is embedded in a URL and executed when the victim clicks the link
- ☒ d. The malicious script is stored in the database and executed when loaded by a user

**Question 15**

Complete

Mark 1.00 out of 1.00

What does the dangerouslySetInnerHTML property in React do?

- ☐ a. Blocks XSS automatically
- ☐ b. Encrypts JavaScript code
- ☐ c. Prevents all forms of user input
- ☒ d. Allows raw HTML to be inserted into the page