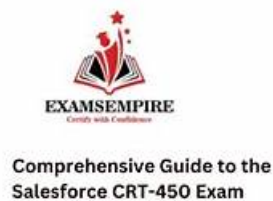


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### Salesforce Certified Platform Developer I Sample Questions (Q154-Q159):

#### NEW QUESTION # 154

Which two scenarios require an Apex method to be called imperatively from a Lightning web component?  
Choose 2 answer

- A. Calling a method that is not annotated with cacheable=true
- B. Calling a method that is external to the main controller for the Lightning web component
- C. Calling a method with the click of a button
- D. Calling a method that makes a web service callout

Answer: A,D

Explanation:

The two scenarios that require an Apex method to be called imperatively from a Lightning web component are:

\* Calling a method that makes a web service callout: A web service callout is a request that is sent from Salesforce to an external service, such as a REST or SOAP API<sup>1</sup>. Web service callouts are subject to limits and restrictions, such as the maximum number of callouts per transaction, the maximum response size, and the requirement to use asynchronous execution for long-running callouts<sup>1</sup>. Therefore, to control when the callout occurs and handle the response or errors, it is recommended to call the Apex method that makes the callout imperatively from the Lightning web component<sup>2</sup>.

\* Calling a method that is not annotated with `cacheable=true`: The `cacheable=true` annotation on an Apex method indicates that the method can be cached and reused by the Lightning Data Service, which is a layer of the Lightning web component framework that manages data and metadata<sup>3</sup>. This annotation improves the performance and user experience of the Lightning web component, as it reduces the number of server round trips and network latency<sup>3</sup>. However, not all Apex methods can or should be annotated with `cacheable=true`, such as methods that perform DML operations, return different results for different users, or depend on the current state of the database<sup>3</sup>. In such cases, the Apex method should be called imperatively from the Lightning web component to ensure the data is fresh and consistent<sup>2</sup>.

References:

\* 1: Callouts | Apex Developer Guide | Salesforce Developers

\* 2: Call Apex Methods Imperatively | Work with Salesforce Data | Lightning Web Components Developer Guide | Salesforce Developers

\* 3: Call Apex Methods | Work with Salesforce Data | Lightning Web Components Developer Guide | Salesforce Developers

### NEW QUESTION # 155

A `PrimaryId__c` custom field exists on the `Candidate__c` custom object. The field is used to store each candidate's id number and is marked as Unique in the schema definition.

As part of a data enrichment process, Universal Containers has a CSV file that contains updated data for all candidates in the system. The file contains each Candidate's primary .. as a data point. Universal Containers wants to upload this information into Salesforce, while ensuring all data rows are correctly mapped to a candidate in the system.

Which technique should the developer implement to streamline the data upload?

- A. Create a before save flow to correctly map the records.
- **B. Update the `PrimaryId__c` field definition to mark it as an External Id.**
- C. Upload the CSV into a custom object related to `Candidate__c`.
- D. Create a before insert trigger to correctly map the records,

**Answer: B**

Explanation:

C: Update the `PrimaryId__c` field definition to mark it as an External Id:

Marking `PrimaryId__c` as an `External Id` allows Salesforce to use this field to match records during the data import process, streamlining the process of mapping CSV rows to existing `Candidate__c` records.

`External Id` fields are indexed and can be used in tools like `Data Loader`, `Data Import Wizard`, or `API-based upserts` to ensure that records are matched correctly based on the value of the external ID field.

In this case, since `PrimaryId__c` is unique, marking it as an external ID eliminates the need for custom triggers or flows.

Why this is the best solution?

This technique leverages built-in Salesforce capabilities (no need for custom code or automation).

It ensures accurate record matching and is the standard approach for data enrichment tasks involving unique identifiers.

Why not the other options?

A: Upload the CSV into a custom object related to `Candidate__c`:

This approach unnecessarily introduces another object, adding complexity. The goal is to update existing `Candidate__c` records, not store the data in a separate object.

B: Create a before insert trigger to correctly map the records:

Using triggers for this purpose is overengineering. Salesforce already provides tools like `upsert` for this exact use case. Writing a trigger would require additional effort and could introduce unintended errors or performance issues.

D: Create a before save flow to correctly map the records:

While flows are powerful, they are not the optimal solution for this use case. Data mapping is better handled using an external ID during import to ensure proper matching and updates.

References:

External IDs in Salesforce

Upsert with Data Loader

Unique and External ID Fields

### NEW QUESTION # 156

While writing an Apex class, a developer wants to make sure that all functionality being developed is handled as specified by the requirements.

Which approach should the developer use to be sure that the Apex class is working according to specifications?

- A. Include a savepoint and `rollback()`.
- **B. Create a test class to execute the business logic and run the test in the Developer Console.**
- C. Run the code in an Execute Anonymous block in the Developer Console.
- D. Include a try/catch block to the Apex class.

**Answer: B**

Explanation:

Creating test classes ensures that the Apex class works according to specifications by validating the functionality under various scenarios and edge cases. Running tests in the Developer Console provides detailed feedback on whether the class meets requirements.

Reference: Testing Apex

Incorrect Options:

A: Savepoints and rollbacks are used to manage transactions, not for validation.

B: Try/catch blocks handle exceptions but do not ensure the code adheres to specifications.

C: Execute Anonymous only tests small portions of code interactively, not comprehensive functionality.

Below is the formatted response for the provided question, adhering to the specified format and requirements.

The question falls under the Salesforce Platform and Declarative Features topic, as it involves Visualforce page components and their security implications, which is a key focus of the Salesforce Platform Developer I certification. The answer is based on official Salesforce Platform Developer I documentation, with a comprehensive explanation and references to relevant Salesforce documentation.

### NEW QUESTION # 157

A developer is writing tests for a class and needs to insert records to validate functionality. Which annotation method should be used to create record for every method in the test class?

- A. `@isTest (SeeAllData=true)`
- B. `@StartTest`
- C. `@FreTest`
- **D. `@TestSetup`**

**Answer: D**

### NEW QUESTION # 158

Assuming that `name` is a String obtained by a Visualforce page, which two SOQL queries performed are safe from SOQL injection? (Choose two.)

- **A. apex**  
Copy  
`String query = '%' + name + '%';`  
`List<Account> results = [SELECT Id FROM Account WHERE Name LIKE :query];`
- B. apex  
Copy  
`String query = 'SELECT Id FROM Account WHERE Name LIKE \'%' + name.noQuotes() + '%\''; List<Account> results = Database.query(query);`
- **C. apex**  
Copy  
`String query = 'SELECT Id FROM Account WHERE Name LIKE \'%' + String.escapeSingleQuotes (name) + '%\''; List<Account> results = Database.query(query);`
- D. apex  
Copy  
`String query = 'SELECT Id FROM Account WHERE Name LIKE \'%' + name + '%\''; List<Account> results = Database.query(query);`

**Answer: A,C**

Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

To determine which SOQL queries are safe from SOQL injection, we need to evaluate each option for how it handles the name parameter (user input from a Visualforce page) and whether it properly mitigates the risk of SOQL injection. SOQL injection occurs when untrusted user input is directly embedded into a query string, allowing malicious users to manipulate the query's logic. Let's analyze each option systematically, referencing Salesforce's official documentation, particularly the Secure Coding Guidelines and Apex Developer Guide.

Understanding SOQL Injection:

\* SOQL Injection: This vulnerability arises when user input is dynamically concatenated into a SOQL query string without proper sanitization, allowing an attacker to alter the query's behavior. For example, if name is ' OR '1'=1, an unsafe query might return all records instead of the intended subset.

The Salesforce Secure Coding Guidelines state: "SOQL injection occurs when untrusted input is concatenated into a query string, potentially allowing an attacker to bypass intended logic" (Salesforce Secure Coding Guidelines, SOQL Injection).

\* Prevention Techniques:

\* Bind Variables (:variable): Using bind variables in SOQL queries ensures user input is treated as a value, not part of the query logic, preventing injection. The Apex Developer Guide notes:

"Using bind variables (:variable) in SOQL queries is the safest way to prevent SOQL injection" (Salesforce Apex Developer Guide, Secure Coding for SOQL).

\* Sanitization: If dynamic SOQL (e.g., Database.query()) is used, user input must be sanitized using methods like String.escapeSingleQuotes() to escape special characters (e.g., single quotes) that could alter the query.

\* Context: The name variable comes from a Visualforce page, meaning it's untrusted user input and must be handled carefully to prevent injection.

Evaluating the Options:

\* A.

apex

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```
String query = '%' + name + '%';
```

```
List<Account> results = [SELECT Id FROM Account WHERE Name LIKE :query];
```

\* Approach: Constructs a query string by concatenating wildcards (%) with the name variable, then uses a bind variable (:query) in the SOQL query.

\* Security: Using a bind variable (:query) ensures that the value of query (which includes name) is treated as a literal value in the LIKE clause, not as part of the query's syntax. Even if name contains malicious input (e.g., ' OR '1'=1), the SOQL engine treats it as a single string to match against Name, preventing injection. The Apex Developer Guide confirms: "Bind variables prevent SOQL injection by treating user input as data, not executable code" (Salesforce Apex Developer Guide, Secure Coding for SOQL).

\* Example: If name = 'Test' OR '1'=1, then query = '%Test' OR '1'=1%'. The SOQL query becomes:

apex

Copy

```
[SELECT Id FROM Account WHERE Name LIKE '%Test' OR '1'='1%']
```

This searches for records where Name matches the literal string '%Test' OR '1'=1%', which is safe and does not alter the query logic.

\* Conclusion: Safe from SOQL injection due to the use of a bind variable.

\* B.

apex

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```
String query = 'SELECT Id FROM Account WHERE Name LIKE \'%' + name.noQuotes() + '%\'; List<Account> results = Database.query(query);
```

\* Approach: Dynamically constructs a SOQL query string by concatenating name.noQuotes() into the query, then executes it using Database.query().

\* Security: The noQuotes() method is not a standard Apex method on the String class. The Apex Developer Guide does not define noQuotes() as a built-in method (Salesforce Apex Developer Guide, String Class). Assuming it's a custom method, it likely attempts to remove quotes from the string, but this does not prevent SOQL injection. Concatenating user input directly into the query string is inherently unsafe unless properly sanitized.

\* Example: If name = 'Test' OR '1'=1, and assuming noQuotes() does nothing (or removes quotes, which doesn't help), the query becomes:

apex

Copy

```
SELECT Id FROM Account WHERE Name LIKE '%Test' OR '1'='1'
```

The OR '1'=1' condition evaluates to true for all records, returning all Accounts, which is a successful SOQL injection attack.

\* Conclusion: Not safe, as it directly concatenates user input without proper sanitization or bind variables, and noQuotes() is not a

reliable or standard method for preventing injection.

\* C.

apex

Copy

```
String query = 'SELECT Id FROM Account WHERE Name LIKE \'' + String.escapeSingleQuotes(name) +
'\'';
```

```
List<Account> results = Database.query(query);
```

\* Approach: Dynamically constructs a SOQL query string by concatenating name into the query after applying String.escapeSingleQuotes(), then executes it using Database.query().

\* Security: The String.escapeSingleQuotes() method escapes single quotes in the input by adding a backslash (\), preventing the input from breaking out of the string literal in the SOQL query. The Apex Developer Guide states: "String.escapeSingleQuotes() prevents SOQL injection in dynamic queries by escaping single quotes, ensuring the input cannot alter the query structure" (Salesforce Apex Developer Guide, String Class). This ensures that even malicious input cannot manipulate the query logic.

\* Example: If name = 'Test' OR '1'=1, then String.escapeSingleQuotes(name) returns Test\' OR \'1\'=\'1. The query becomes:

apex

Copy

```
SELECT Id FROM Account WHERE Name LIKE '%Test\' OR \'1\'=\'1%
```

This searches for records where Name matches the literal string %Test\' OR \'1\'=\'1%, which is safe and does not allow the OR condition to execute as logic.

\* Conclusion: Safe from SOQL injection due to the use of String.escapeSingleQuotes() to sanitize the user input in a dynamic query.

\* D.

apex

Copy

```
String query = 'SELECT Id FROM Account WHERE Name LIKE \'' + name + '\''; List<Account> results =
Database.query(query);
```

\* Approach: Dynamically constructs a SOQL query string by directly concatenating name into the query, then executes it using Database.query().

\* Security: This approach is vulnerable to SOQL injection because name is directly embedded into the query string without sanitization. The Salesforce Secure Coding Guidelines warn: "Directly concatenating user input into a dynamic SOQL query without escaping can lead to SOQL injection" (Salesforce Secure Coding Guidelines, SOQL Injection).

\* Example: If name = 'Test' OR '1'=1, the query becomes:

apex

Copy

```
SELECT Id FROM Account WHERE Name LIKE '%Test' OR '1'=1%
```

The OR '1'=1' condition evaluates to true for all records, returning all Accounts, demonstrating a successful SOQL injection attack.

\* Conclusion: Not safe, as it directly concatenates user input without sanitization or bind variables.

Why Options A and C are Correct:

\* Option A: Uses a bind variable (:query) in the SOQL query, ensuring that the user input (name) is treated as a literal value, not executable code. This is the most secure way to prevent SOQL injection, as recommended by Salesforce.

\* Option C: Uses String.escapeSingleQuotes() to sanitize the user input before embedding it into a dynamic SOQL query, preventing the input from altering the query's logic. This is a safe approach for dynamic queries when bind variables cannot be used directly.

\* Options B and D: Both concatenate user input directly into the query string without adequate sanitization (noQuotes() is not a standard or reliable method in B, and D has no sanitization), making them vulnerable to SOQL injection.

Example of Vulnerability (Option D):

Consider a Visualforce page where name is set via a user input field:

apex

Copy

```
String name = ApexPages.currentPage().getParameters().get('name');
```

```
String query = 'SELECT Id FROM Account WHERE Name LIKE \'' + name + '\''; List<Account> results =
Database.query(query);
```

If a malicious user submits name = ' OR '1'=1, the query becomes:

apex

Copy

```
SELECT Id FROM Account WHERE Name LIKE '% OR '1'=1%
```

This returns all Accounts, bypassing the intended filtering, which is a successful SOQL injection attack.

Mitigating SOQL Injection:

\* Preferred (Option A): Use bind variables whenever possible:

apex

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```
String query = ':' + name + ':';
```

```
List<Account> results = [SELECT Id FROM Account WHERE Name LIKE :query];
```

\* Alternative (Option C): If dynamic SOQL is required, sanitize input with `String.escapeSingleQuotes()`:

```
apex
```

```
Copy
```

```
String query = 'SELECT Id FROM Account WHERE Name LIKE \'' + String.escapeSingleQuotes(name) +
'\'';
```

```
List<Account> results = Database.query(query);
```

Handling Typos:

\* The options are syntactically correct in the provided image, with no typos to address.

\* Option B's `name.noQuotes()` is not a standard Apex method, but the analysis assumes it's a custom method that fails to prevent injection, as it's not a recognized sanitization technique.

References:

Salesforce Apex Developer Guide:

"Secure Coding for SOQL" section: Recommends using bind variables to prevent SOQL injection.

"String Class" section: Details `String.escapeSingleQuotes()` for sanitizing dynamic queries.

"Database Class" section: Describes `Database.query()` for dynamic SOQL execution.(Available at:

<https://developer.salesforce.com/docs/atlas.en-us.apexcode.meta/apexcode/>) Salesforce Secure Coding Guidelines:

"SOQL Injection" section: Warns against concatenating untrusted input and recommends bind variables or sanitization.(Available at:

[https://developer.salesforce.com/docs/atlas.en-us.secure\\_coding\\_guide.meta](https://developer.salesforce.com/docs/atlas.en-us.secure_coding_guide.meta)

[/secure\\_coding\\_guide/](#))

Platform Developer I Study Guide:

Section on "Salesforce Platform and Declarative Features": Covers secure coding practices, including preventing SOQL injection in Visualforce contexts.(Available at: <https://trailhead.salesforce.com/en/content>

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## NEW QUESTION # 159

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