

Final Module C

Due Dec 15 at 11:59pm**Points** 20**Questions** 20**Time Limit** 40 Minutes

Instructions

The final exam is comprehensive, though the second portion of the course is emphasized. In addition to questions on the readings, there may be questions regarding the Bookstore project. You only have 40 minutes to complete 20 questions, therefore you may want to create a page of written notes for yourself to avoid having to look a lot of things up.

Major topics (about 10 questions total in 4 modules):

- HTML & CSS (including Flexbox)
- Internetworking, HTTP, and webapp architecture
- Javascript (including code, promises, and arrow functions)
- DAO (including find & create methods, and model classes)

Significant topics (about 5 questions total in 4 modules):

- Ajax, DOM, and Fetch
- Vuex and storage
- Vue components
- Databases and SQL
- Bookstore admin (including file layout, IntelliJ, and deployment)
- Vue directives
- Vulidate and validation
- SSL/TLS and cryptography
- SubmitOrder overview
- REST API (including naming, and Jersey & Jackson)

Attempt History

	Attempt	Time	Score
LATEST	<u>Attempt 1</u>	27 minutes	19 out of 20

Score for this quiz: **19** out of 20

Submitted Dec 5 at 5:23pm

This attempt took 27 minutes.

Question 1**1 / 1 pts**

A primary key must have a unique value

Correct!☒ True☐ False**Question 2****1 / 1 pts**

Current JavaScript (ES6) does not have classes.

Correct!☐ True☒ False**Question 3****1 / 1 pts**

What type of object does a fetch call return?

Correct!☒ Promise☐ URL☐ Response

☐ JSON

Question 4

1 / 1 pts

Peer-to-peer networking is characterized by a lack of

- ☐ clients
- ☐ requests
- ☒ centralized control
- ☐ routers

Correct!

Question 5

0 / 1 pts

If the signature of a create method (in a DAO interface) takes a Connection object, it technically violates encapsulation because it reveals details about how the method is implemented

☐ True

☒ False

Correct Answer

You Answered

Question 6

1 / 1 pts

In the Bookstore project, which tables in the database are updated in a successful transaction?

Correct!

- ☐ customer and customer-order
- ☐ customer-order and customer-order-line-item
- ☐ customer-order
- ☒ customer, customer-order, and customer-order-line-item

Question 7**1 / 1 pts**

When converting from JSON to Java, what does the annotation `@JsonIgnoreProperties` in the Java model class do?

- ☐ No such option exists - when converting from JSON to Java, the properties in the model class must always be the same as the properties on the JSON object
- ☐ Allows us to ignore properties in the JSON object that are not defined in the model class AND allows us to ignore properties in the model object that are not defined in the JSON object
- ☒ Allows us to ignore properties in the JSON object that are not defined in the model class
- ☐ Allows us to ignore properties in the model object that are not defined in the JSON object

Correct!**Question 8****1 / 1 pts**

Which of the following is NOT one of the methods that can be used when calling a REST API?

☐ POST

☒ CREATE

☐ PUT

☐ GET

Correct!

Question 9

1 / 1 pts

In the Bookstore project, which create method does NOT have the following statement and why?

```
ResultSet rs = statement.getGeneratedKeys();
```

☐

The create method for customer. Because we do not need return the customer ID

☐

The create method for customer-order. Because no key is generated for customer-order.

☒

The create method for customer-order-line-item. Because no key is generated for customer-order-line-item.

☐

The create method for customer-order-line-item. Because multiple keys are generated for customer-order-line-item.

Correct!

Question 10**1 / 1 pts**

In the Bookstore project, the REST API interface and a few other classes require DAO objects. How are these DAO objects initialized?

- ☐ They are initialized using annotation through dependency injection
- ☐ They are initialized in the constructor of the REST API - the client passes in DAO instances
- ☐ They are initialized by calling their getInstance methods - DAO objects are singletons
- ☒ They are initialized by accessing their values in the singleton class ApplicationContext

Correct!**Question 11****1 / 1 pts**

Suppose $x = 5$ (so x is a number) and $y = "5"$ (so y is a string). Which of the following is true about the `==` and the `===` operators?

- ☒ $x == y$ is true, but $x === y$ is false
- ☐ $x == y$ is false, but $x === y$ is true
- ☐ Both $x == y$ and $x === y$ are true

Correct!

- ☐ both `x == y` and `x === y` are false

Question 12

1 / 1 pts

Consider the following JavaScript code:

```
elements.filter(element => element.length > 10);
```

What is this equivalent to?

- ☐

```
elements.filter(element) {  
  return element.length > 10;  
};
```
- ☐

```
elements.filter() {  
  return elements.length > 10;  
};
```
- ☒

```
elements.filter(function(element) {  
  return element.length > 10;  
});
```
- ☐

```
elements.filter(element) {  
  return function(element) {  
    element.length > 10;  
  }  
};
```

Correct!

Question 13

1 / 1 pts

Which of the following is a Vuex action?

☐

```
ADD_TO_CART(state, book) {  
  state.cart.addItem(book, 1);  
}
```

☐

```
addItem(book, quantity = 1) {  
  let existingItem = this._items.find(  
    item => item.book.bookId == book.bookId  
  );  
  if (!existingItem) {  
    let newItem = new ShoppingCartItem(book);  
    newItem.quantity = quantity;  
    this._items.push(newItem);  
  } else {  
    existingItem.quantity++;  
  }  
}
```

Correct!

☒

```
addToCart(context, book) {  
  context.commit("ADD_TO_CART", book);  
}
```

☐

```
addToCart(book) {  
  this.$store.dispatch("addToCart", book);  
}
```

Question 14

1 / 1 pts

This cryptographic technology takes a message of variable size and compresses it into a message of fixed size in such a way that the original message cannot be obtained from the compressed one.

☐ certificate of authentication

☒ one-way cryptographic hash

☐ symmetric key cryptography

☐ public key cryptography

Correct!

Question 15**1 / 1 pts**

In the Bookstore project, where is the code that performs server-side validation of the fields on the checkout page?

- ☐ CustomerForm.java
- ☒ DefaultOrderService.java
- ☐ OrderForm.java
- ☐ Checkout.vue

Correct!**Question 16****1 / 1 pts**

In the implementation of a DAO's find method, which of the following is NOT one of the resources you might find in a try-with-resources statement?

- ☐ PreparedStatement
- ☒ BufferedReader
- ☐ ResultSet
- ☐ Connection

Correct!**Question 17****1 / 1 pts**

What HTTP method is assumed if a fetch request contains only a URL?

Correct!☐ CREATE☐ POST☐ PUT☒ GET**Question 18****1 / 1 pts**

What CSS does a flex container always have?

☐ contents: flex☐ flex-direction: [row or column]☒ display: flex☐ flex: true**Correct!****Question 19****1 / 1 pts**

A RESTful API should be stateless

☒ True☐ False**Correct!****Question 20****1 / 1 pts**

What element is used for input fields inside of a <form> element?

☐ <record>

☒ <input>

☐ <text>

☐ <field>

Correct!

Quiz Score: **19** out of 20