Report Scheduler

Friday, May 26, 2023 10:08 AM

What is Caching

- Caching keeps frequently accessed objects, images and data closer to where you need them, speeding up access and saving monetary cost.
- Between client and server
- Application layer and database layer
- In general between any 2 layers

When to Use Caching

- There is repetitive data return for same input
- To save monetary cost
- To improve latency among layers

@Cachable

- Used with the methods that are cacheable
- cacheManager
- cacheResolver
- Synchronized Caching

@CahcePut

- To update the cache

@CacheEvict

- To clear the cache values from cache storage

@Caching

- To specify multiple annotations of the same type (such as @CacheEvict or @CachePut)

@CacheConfig

- Class level
- For all the methods of the class
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First steps for Cache is add annotation in main class that is @EnableCaching

IOC - Inversion Control means Injecting the object and their dependency with creating the object
Spring has 2 types of IOC one is Bean Factory and Application Context .Programmer can create the object of bean or application context and pass input file example xml file . Then using get method we can get object

What is the difference between @Restcontroller and @Controller annotation.

@Controller:
- The @Controller annotation is used to define a class as a Spring MVC controller.
- It is typically used in combination with @RequestMapping to specify the URL mappings for handling HTTP requests.
- The methods within a class annotated with @Controller return a logical view name, which is resolved by a ViewResolver to render the HTML page

@RestController:
- The @RestController annotation is a specialized version of @Controller that is used for RESTful web services.
- It combines @Controller and @ResponseBody, meaning that the return value of methods is directly serialized to the HTTP response body, instead of being resolved to a view.
- It is commonly used when you want to build a RESTful API, and the response is not an HTML page but rather data in a format like JSON or XML.

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In summary, while both @Controller and @RestController are used to create

controllers in Spring MVC, @RestController is specialized for RESTful web services and is a convenient choice when you want to return data directly in the response body, typically in JSON or XML format. If you are building a traditional web application with views, you would typically use @Controller.

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Advantage of Encapsulation in Java

By providing only a setter or getter method, you can make the class **read-only or write-only** . In other words, you can skip the getter or setter methods.

What is Polymorphism in Java?

Polymorphism is considered one of the important features of Object-Oriented Programming. Polymorphism allows us to perform a single action in different ways. In other words, polymorphism allows you to define one interface and have multiple implementations. The word “poly” means many and “morphs” means forms, So it means many forms.

Abstraction in Java

Data **abstraction** is the process of hiding certain details and showing only essential information to the user.
Abstraction can be achieved with either **abstract classes** or **interfaces**
The abstract keyword is a non-access modifier, used for classes and methods:

- **Abstract class:** is a restricted class that cannot be used to create objects (to access it, it must be inherited from another class).
- **Abstract method:** can only be used in an abstract class, and it does not have a body. The body is provided by the subclass (inherited from).

An abstract class can have both abstract and regular methods:

Serilizable & deserilizable

Thursday, February 15, 2024 9:25 AM

Serializable means converting the Object in to byte array . In order to develop need to implement the marker interface serializable .
Byte stream is platform independent so that it can run on any platform.
Object class has method called writeobject() it is used to write a data to file .
The class has to be one private static final serialVersionUID = 1L. Basis on this unique id is generated using class name , attributes and associated with access modifiers
If class does not contain serialversionUID then JVM will generate one automatically during run time but it recommended to define in class . As generated is compiler dependent and it may result in unexpected InvalidClassException

If we implement the sterilization then in case if you don't need to serialize all fields then we need to define that variable as persistence , So it will be big task if class has many fields

ForkJoin

Wednesday, February 21, 2024 3:39 PM

StringBuilder and String Buffer

Friday, March 15, 2024 1:23 PM

1. StringBuilder:
   - StringBuilder was introduced in Java 5.
   - It is not thread-safe, meaning it is not synchronized, and therefore not suitable for concurrent access by multiple threads.
   - StringBuilder has better performance compared to StringBuffer in single-threaded environments because it does not incur the overhead of synchronization.
   - It is recommended to use StringBuilder when the code does not need to be accessed by multiple threads simultaneously.
2. StringBuffer:
   - StringBuffer has been available since the earliest versions of Java.
   - It is thread-safe, meaning it is synchronized, and therefore suitable for concurrent access by multiple threads.
   - StringBuffer is less efficient in single-threaded environments compared to StringBuilder because of the overhead of synchronization.
   - It is recommended to use StringBuffer when there is a need for thread-safe string manipulation, especially in multi-threaded environments.

Kafkha

Tuesday, March 19, 2024 6:56 AM

Avro Schema is basically used to define the schema like define the field need to expose this can contain optional , conditional and mandatory fields

Need to build APP using this link : [Spring Boot | Kafka Schema Registry & Avro with Practical Example and Implementation | #JavaTechie]