

Dt:26/5/2022

define Iterator<E>?

=>Iterator<E> is an interface from java.util package and which is used to retrieve elements from Collection<E> objects in forward direction.

=>The following are some important methods from Iterator<E>:

(a)hasNext()

(b)next()

(c)remove()

(d)forEachRemaining()

(a)hasNext():

=>hasNext() method will check the element is available or not, and generate boolean result.

Method Signature:

public abstract boolean hasNext();

(b)next():

=>This next() method is used to take the element from Collection<E> object.

Method Signature:

public abstract E next();

(c)remove():

=>This method is used to remove the element from Collection<E> object.

Method Signature:

public default void remove();

(d)forEachRemaining():

=>forEachRemaining() method added to Iterator<E> from Java8 version onwards and uses LambdaExpression to retrieve the elements.

Method Signature:

public default void forEachRemaining(java.util.function.Consumer<? super E>);

define iterator() method?

=>iterator() method is used to create the implementation object of Iterator<E> interface and the object will hold the reference of Collection<E> object, in this process the iterator() method also generate cursor pointing before the first element of Collection<E> object.

syntax:

Iterator<ProductBean> it = al.iterator();

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Assignment:

Construct Servlet Application to perform the following operations:

=>AddBook

=>ViewBooks

=>EditBookDetails(based on BookCode)

=>DeleteBook(based on BookCode)

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faq:

define request?

=>The query generated from user or client through WebBrowser is known as request.

Diagram:

Types of requests:

=>Requests are categorized into two types:

1.POST request

2.GET request

1.POST request :

=>The request generated to send the data to Server is known as POST request.

*=>Through POST request we can send all types of data like Text,Audio,Video,
Image and Animation.*

=>Through POST request we can send Unlimited data.

*=>The data which is sent through POST request is secured because the data is
encapsulated into the body part of HTTP.*

=>We use the following syntax to generate POST request:

<form action="url" method="POST">

...

</form>

=>we use `doPost()` method from `HttpServlet` to accept `POST` request.

Method Signature:

```
protected void doPost(javax.servlet.http.HttpServletRequest,  
javax.servlet.http.HttpServletResponse)throws javax.servlet.ServletException,  
java.io.IOException;
```

2.GET request"

=>The request generated to get the data from the Server is known as `GET` request.

=>Through `GET` request we can send only text data.

=>Through `GET` request we can send only limited data, which means up to 4kb or 8kb.

=>The data which is sent through `GET` request is not secured, because the data is display in address bar directly.

=>We use the following four ways to generate `GET` request:

(i)Using `method="GET"` in `<form>` tag

```
<form action="url" method="GET">
```

...

```
</form>
```

(ii)without using `method` attribute in `<form>` tag

```
<form action="url">
```

...

```
</form>
```

(iii)Using Hyper Link

(iv)Using servlet-url-pattern in AddressBar

=>we use doGet() method from HttpServlet to accept GET request

Method Signature:

*protected void doGet(javax.servlet.http.HttpServletRequest,
javax.servlet.http.HttpServletResponse)throws javax.servlet.ServletException,
java.io.IOException;*

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