17/09/2020
DEPSTAR - 5CE2
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18DCE115   ADVANCE JAVA   PROGRAMMING

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Q1) The Result set interface represents the result set of a database database query. It reads from a database query & returns the result set of it. Here Result set is a object that maintains a cursor that points to the current row in the result set.

Result set Interface methods :

i) public boolean next(): To move cursor to these one row next from the current possition.

ii) Public boolean previous(): To move cursor to one row previous from the current position.

iii) public boolean First(): To move cursor to the First row in Result set object.

iv) public boolean last(): To move cursor to the last row in Result set object.
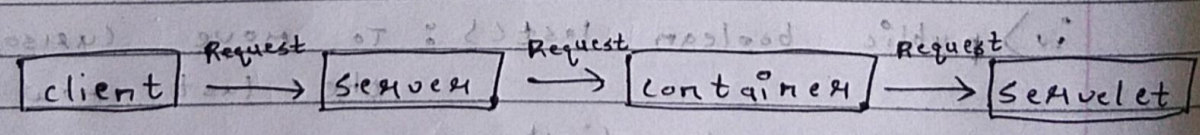
✎ And many others ...! These above are some commonly used methods.

Q2) Web container is a java application that controls servelet. Server does not have main() method, so they require a container to load them. Container is a place where servelet gets deployed.
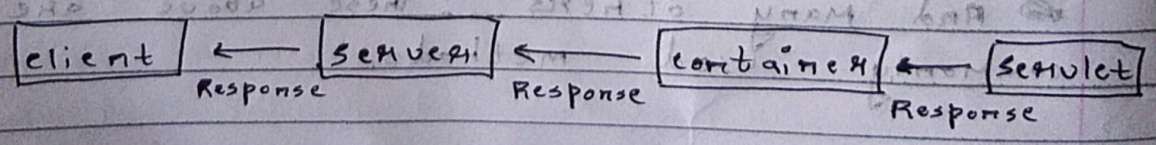Example : Tomcat.

A web container handle request of servelets, JSP files, & other files that include server-side-code. It creates servelet instances, loads, and unload servelets, creates & manages requests & Response objects, and performs other servelet-management tasks.

Diagrams for requests & to the servers & response recieved by client.

i) Request made by client to server:

client → Server → container → Servelet
(Request)   (Request)   (Request)

2) Response recieved by client:

client ← Serveri ← container ← Servlet
(Response)   (Response)   (Response)

Q3 Life cycle of servlet is managed by servlet container which uses javax.servlet.servlet interface to understand the servlet object & manage it.

Different stages of servlet life cycle are :

i) **loading of servlet :** when web server starts the servlet container deploys & loads all the servlets.

ii) **(reating instance of servlet :** After the servlets are loaded successfully, the servlet container creat instance per servlet class and all the request to the servlet are executed on same instance.

iii) **Invoke init() method :** After all servlet get instance, this method is invoked for each instantiated servlet. This method initialise the servlet.

iv) **Invoke service () method :** This method is invoked to inform the servlet about the client requests. when service() method is called by a thread which is spawn by the method.

v) Invoke destroy () method : when servlet container shuts down (i.e. when we stop web server), it unloads all servlets & calls destroy() method for each initialised servlets.

ab) STATEMENT :

i) Used to execute normal sql queries

ii) we can't pass parameters to sql query using interface.

iii) performace of this interface ise very low.

iv) It is mainly used when a particular sql query is to be executed once.

Prepared Statement :

i) Used to execute paramaterised or dynamic sql queries.

ii) we can pass parameters at Run time to the sql query.

iii) performance is better than statement.

iv) It is preffered when particular query is to be executed multiple times.

~~Callable Stater~~

Callable Statement :

i) Used to call stored procedures

ii) we can pass 3 types of parameters (i.e. IN, OUT, and IN OUT)

iii) performance is high.

iv) preffered when stored procedure are to be executed.

Q5 Advantages of JDBC API :-

i) N. configuration required on client side, hence, Maintainence time & cost as the JDNI mamini service is used.

ii) No special installation

iii) Database connection done in URL; hece make code portable & easy.

iv) provide access to metadata & so easy to develop sophesticated application

v) Buisness can use there existing database & access it seemlessly.

vi) Reduces complexity.

Q6) HttpservletRequest methods :-

i) get Auth Type() - Returns name of authenticat" scheme used to protect the servlet.

ii) get Cookies() - Returns an array containing all the Cookie objects the client sent with this

iii) getDateHeader() - Returns value of specific request header as a long value that represents a date object.

iv) getHeader() → Returns value of specific request header as a string

v) getHeaders() - Returns values of specified request header as an Enumeration of string objects.

vi) getIntHeader - Returns an enumeration of all header names this request contains.

other Methods :-

- getHeader Names
- getMethod
- getPathInfo
- getContextPath
- getQuery String
- getRemote User
- isUserInRole
- getRequestSessionId
- getRequestURI
- getSession
- isRequestedSessionIdFromURL
- isRequestedSessionIdFromCookie
- isRequestedSessionIdValid
- isRequestedSessionIdFromURL