



Database communication in Servlet =====

1. Java allows us to communicate with databases in our Servlet because almost every Java web application requires the support of DB for performing its activity.
2. Now since, we have a Servlet running at the backend, it is the Servlet developers responsibility to **receive the required data, communicate with the DB, fetch the proper result and finally return it back as an HTML response** to the browser.

Steps required for DB communication in Servlet =====

1. Whenever we write a Servlet which is going to interact with the DB then majorly we take 3 steps:

- a. **Opening the DB connection** : Required only once.
- b. **Processing the request** : Required for every request.
- c. **Disconnecting with the DB** : Required only once.

2. For performing **step b** we can override **doGet()** or **doPost()** method since they are executed on every request.

3. For performing **step c** we can override **destroy()** method since it is called only once when the **Server stops** or site is **undeployed**.

4. For **step a** which also needs to be done only once we have two options:

a) We can override **init(ServletConfig)** method because it is executed only once on first request. But we must remember that the **init(ServletConfig)** method has a very impt definition or body defined in **HttpServlet** class and if we override it, that body will not get a chance to run.

b) Java proposes two solutions to this problem:

i) We can call parent class **init(ServletConfig)** from our Servlet's **init(ServletConfig)** using **super** keyword as show below:

```
super.init(scfg);
```

ii) There is one more **init()** in **HttpServlet** class which is non parameterized and has a blank body. Following is the prototype of this **inti()** in **HttpServlet** class:

```
public void init() throws ServletException;
```

Moreover the parameterized version of **init(ServletConfig)** defined inside **HttpServlet** class automatically calls the non parameterized version of **init()**. So instead of overriding **init(ServletConfig)**, we can override **init()**. In this case without using **super** keyword both the **init()** methods will run.

The container will call parameterized version **init(ServletConfig)** which will execute **HttpServlet's init(ServletConfig)** and from this **init(ServletConfig)**, non parameterized **init()** will be called which will run our **init()**

