

Q35 - Programmatic Servlets Addition [2]

Consider the following Servlet code and the `ServletContainerInitializer` code.

com.nullhaus.MyJar1Servlet

```
package com.nullhaus;

import javax.servlet.annotation.*;
import javax.servlet.http.*;
import javax.servlet.*;
import java.io.*;

@WebServlet(value = "/foo/*", name="NullHaus1")
public class MyJar1Servlet extends HttpServlet {
}
```

com.nullhaus.MyInit

```
package com.nullhaus;

import javax.servlet.*;
import java.util.*;

public class MyInit implements ServletContainerInitializer {
    public void onStartup(Set<Class<?>> c, ServletContext ctx) throws ServletException {
        try {
            Class klass = Class.forName("com.nullhaus.MyJar1Servlet");
            Class<MyJar1Servlet> clazz = (Class<MyJar1Servlet>)klass;

            Servlet s = ctx.createServlet(clazz);
            ServletRegistration.Dynamic d = ctx.addServlet("NullHaus1", s);

            d.addMapping("/baz/*");
        } catch (ClassNotFoundException e) {
            // ...
        }
    }
}
```

Assume that the `MyInit` class is properly registered in the container as a `ServletContainerInitializer`. Choose the statements which are true:

- a. There will be at least one instance of the `MyJar1Servlet` named NullHaus1
- b. The number of `MyJar1Servlet` instances is unspecified
- c. This code doesn't compile

Hide answer

b

Reference: page 62, 8.1.1 "@WebServlet"

Explanation: When the servlet is **programmatically** created using the **same name** as previously defined (using annotations or DD), the behaviour is **not specified**.

Tomcat 7 and Glassfish 3.1 (both uses Catalina servlet container implementation) will throw NullPointerException -- **ctx.addServlet(-) returns null** and none of the url patterns will be mapped to the servlet.

Rasin 4.0.16 will create **one instance** of the servlet and **add the two url-patterns**, so the single servlet instance will respond to both:

`/baz/*` and `/foo/*` url patterns.