

Q59 - Asynchronous Processing in Servlets [4]

Considering the following asynchronous servlets code, choose which statements are true after a GET request to the NullServlet is made:

com.nullhaus.NullServlet

```
package com.nullhaus;

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

@WebServlet(urlPatterns = "/foo/*", name = "NullServlet", asyncSupported = true)
public class NullServlet extends HttpServlet {
    public void doGet(HttpServletRequest req, HttpServletResponse resp) throws IOException {

        resp.getWriter().println("Howdy from NullServlet1!");

        final AsyncContext ac = req.startAsync();

        ac.start(new Runnable() {
            public void run() {
                ac.dispatch("/baz");
            }
        });
    }
}
```

com.nullhaus.NullServlet2

```
package com.nullhaus;

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

@WebServlet(urlPatterns = "/baz/*", name = "NullServlet2", asyncSupported = false)
public class NullServlet2 extends HttpServlet {
    public void doGet(HttpServletRequest req, HttpServletResponse resp) throws IOException {

        resp.getWriter().println("Howdy from NullServlet2!");
    }
}
```

- a. This code compiles
- b. The "Howdy from NullServlet2" will be included in the response
- c. The "Howdy from NullServlet1" will be included in the response
- d. A runtime exception will be thrown when accessing this servlet
- e. This code doesn't compile

Hide answer

a, b, c

Reference: pages 10 - 20, 2.3.3.3 "Asynchronous processing"

Explanation: It is fine to dispatch from an **asynchronous servlet to the synchronous**. By using `req.startAsync()` the original request and response objects are passed to the asynchronous thread, so the "Howdy from NullServlet1" **will not be lost** and will be included in the response.