

## Q65 - Asynchronous Processing in Servlets [10]

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, ServletException {

        if (req.getDispatcherType() == DispatcherType.REQUEST) {
            AsyncContext ac = req.startAsync();
            ac.dispatch("/baz");
        } else if (req.getDispatcherType() == DispatcherType.ASYNC) {
            resp.getWriter().println("Shotgun!");
        }
    }
}
```

**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=true)
public class NullServlet2 extends HttpServlet {
    public void doGet(HttpServletRequest req, HttpServletResponse resp) throws IOException {
        AsyncContext ac = req.startAsync();
        ac.dispatch("/foo");
    }
}
```

- a. This code compiles
- b. The "Shotgun!" will be included in the response
- c. The infinite loop dispatch-loop will be created
- d. The request will be served fine, but no text will be included in the response
- e. A runtime exception will be thrown when accessing this servlet
- f. This code doesn't compile

Hide answer

a, b

**Reference:** page 16, 2.3.3.3 "Asynchronous processing"

**Explanation:** It is **illegal** to use more than one asynchronous dispatch from **one AsyncContext**, but in this case a AsyncContext **has been reinitialized** ( `req.startAsync()` instead of `req.getAsyncContext()` ).