5.Write a program to demonstrate a Servlet Filter.

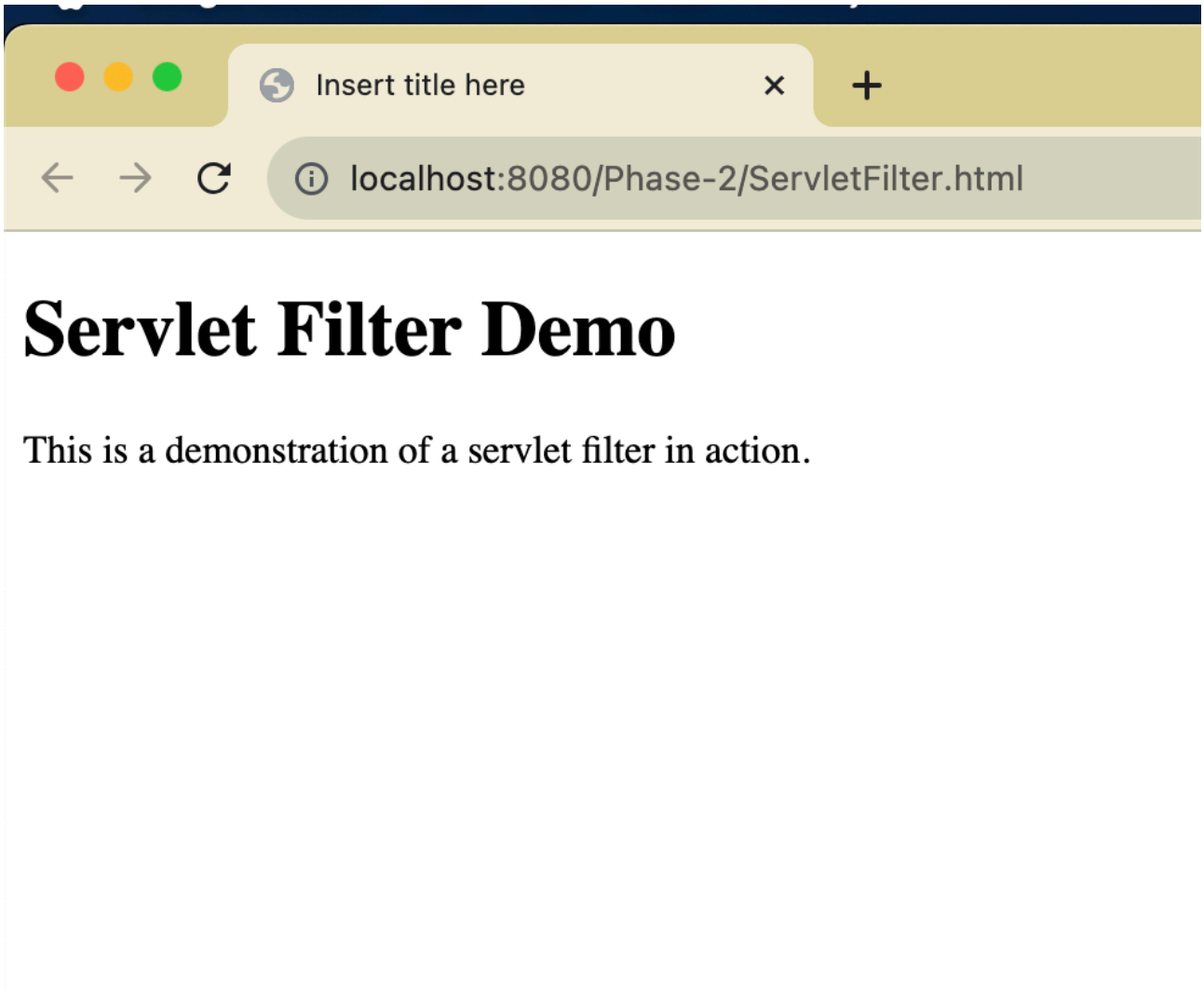
```
package AssistedPractice;

import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
/**
* Servlet implementation class LoggingFilter
*/
public class LoggingFilter implemetns Filter {
private static final long serialVersionUID = 1L;
@Override
public void init(FilterConfig filterConfig) throws ServletException {
// Initialization code
}
@Override
public void doFilter(ServletRequest request, ServletResponse response,
FilterChain chain)
throws IOException, ServletException {
// Pre-processing code
System.out.println("Request received from: " + request.getRemoteAddr());
// Forward the request down the filter chain
chain.doFilter(request, response);
// Post-processing code
}
@Override
public void destroy() {
// Cleanup code
}
}
```

Html

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<h1>Servlet Filter Demo</h1>
<p>This is a demonstration of a servlet filter in action.</p>
</body>
</html>
```

Output :-


Insert title here
localhost:8080/Phase-2/ServletFilter.html
Servlet Filter Demo
This is a demonstration of a servlet filter in action.