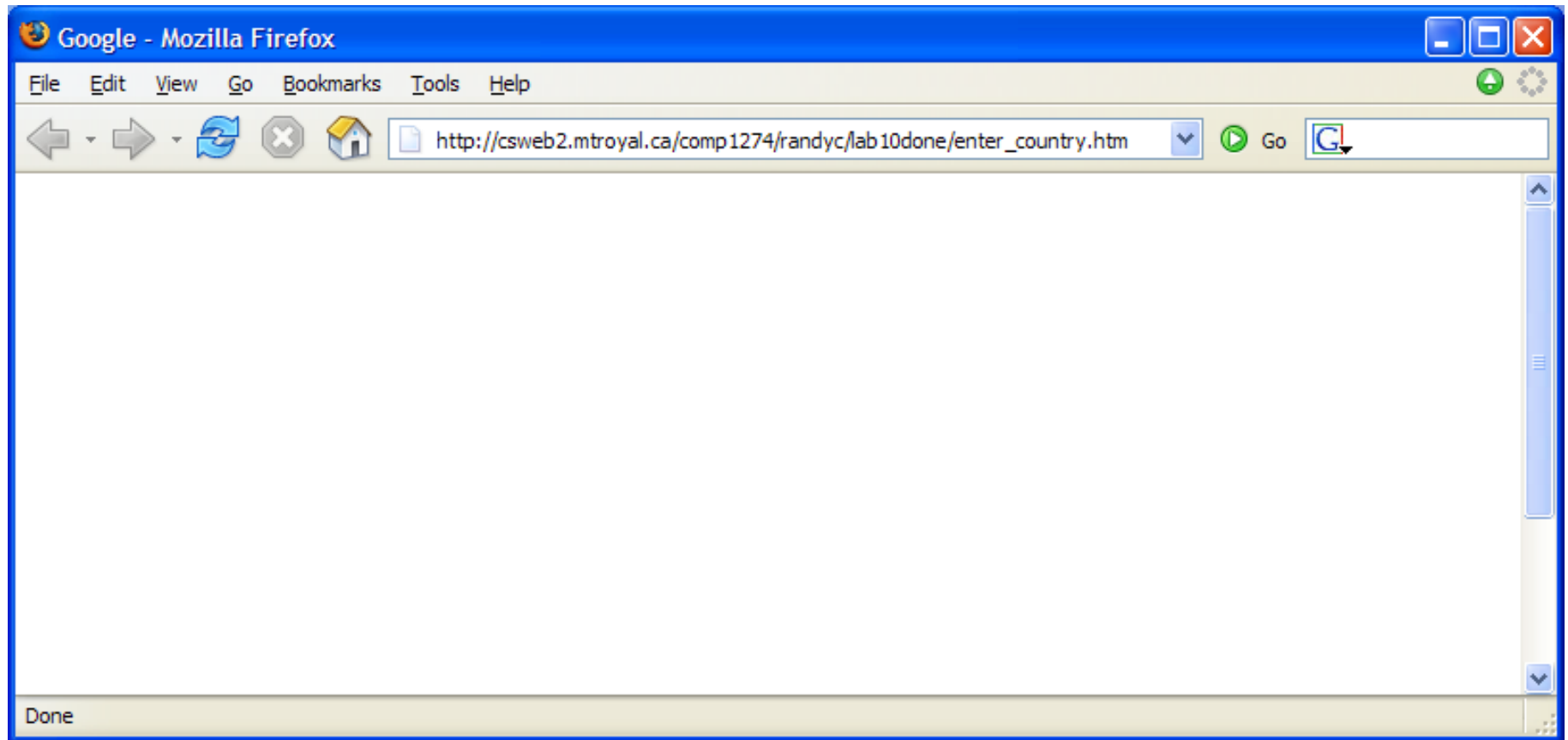


# HTTP EXAMPLE 1



# 1. User makes request

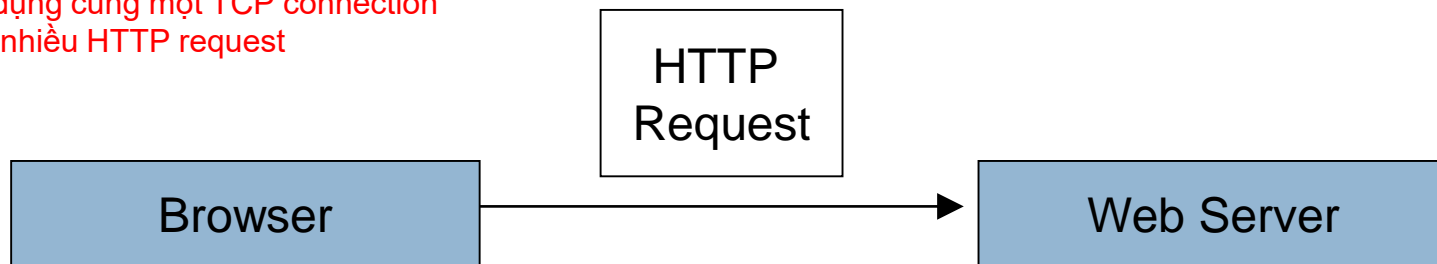


## 2. Browser sends HTTP request to server

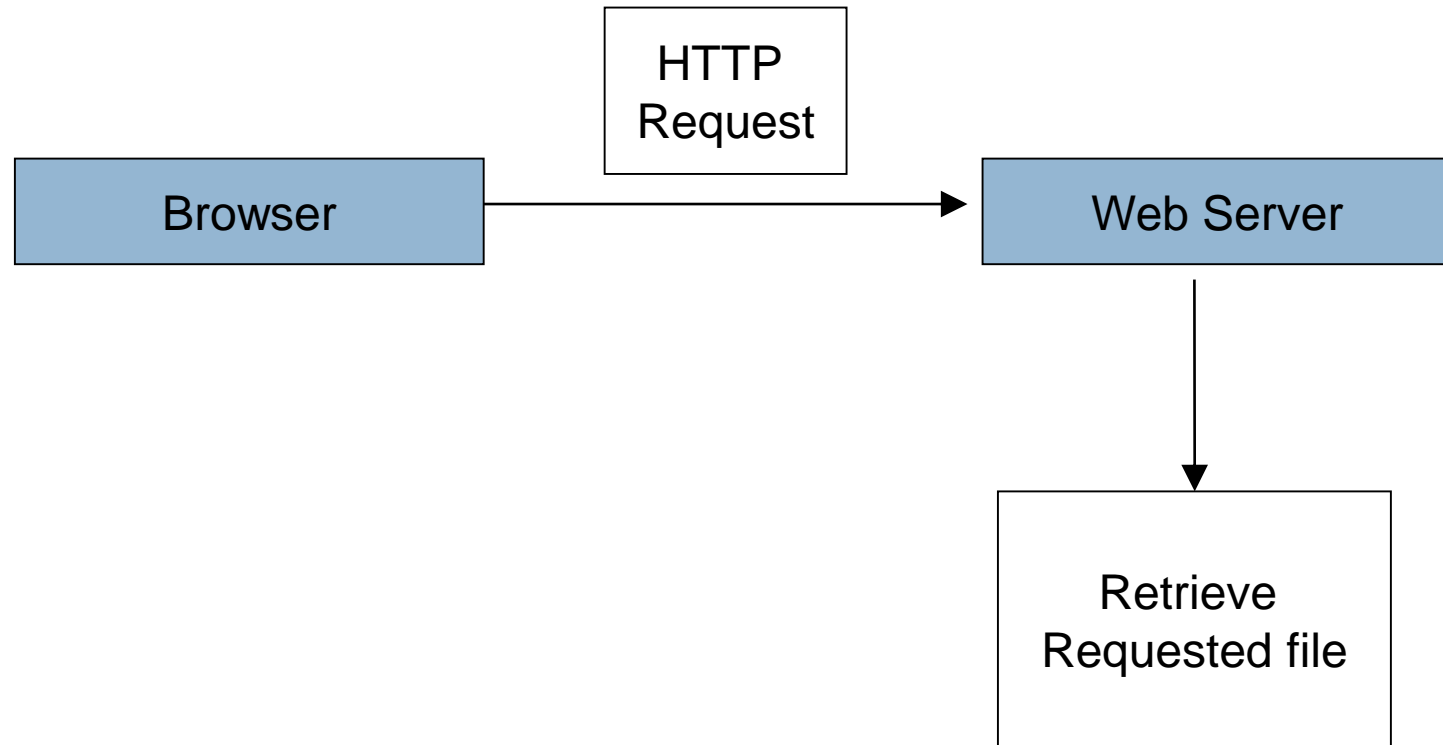
```
GET /comp1274/randyc/lab10done/enter_country.htm HTTP/1.1
Accept: */*
Accept-Language: en-us,en-ca;q=0.5
Accept-Encoding: gzip, deflate
User-Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; SV1; .NET
CLR 1.1.4322; InfoPath.1; .NET CLR 2.0.50727)
Host: csweb2.mtroyal.ca
Connection: Keep-Alive
```

[http://en.wikipedia.org/wiki/HTTP\\_persistent\\_connection](http://en.wikipedia.org/wiki/HTTP_persistent_connection)

Sử dụng cùng một TCP connection  
cho nhiều HTTP request



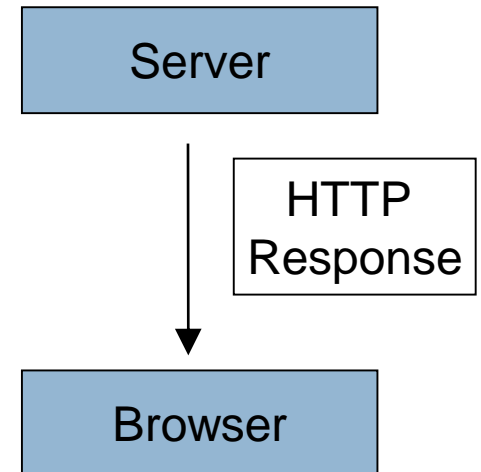
### 3. Server receives and processes the HTTP request



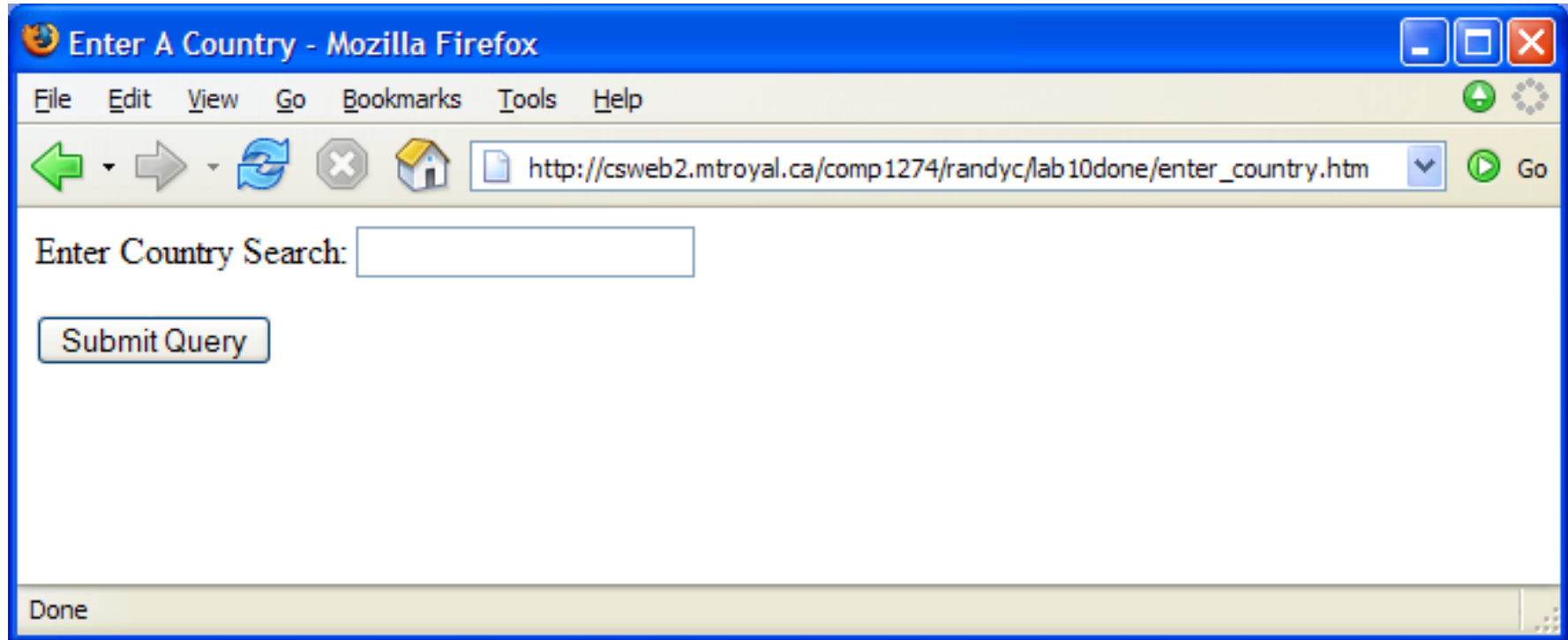
# 4. Server sends HTTP response back

```
HTTP/1.1 200 OK
Server: Microsoft-IIS/5.0
Date: Thu, 30 Mar 2006 19:50:54 GMT
Content-Type: text/html
Accept-Ranges: bytes
Last-Modified: Fri, 24 Mar 2006 17:50:50 GMT
Content-Length: 209

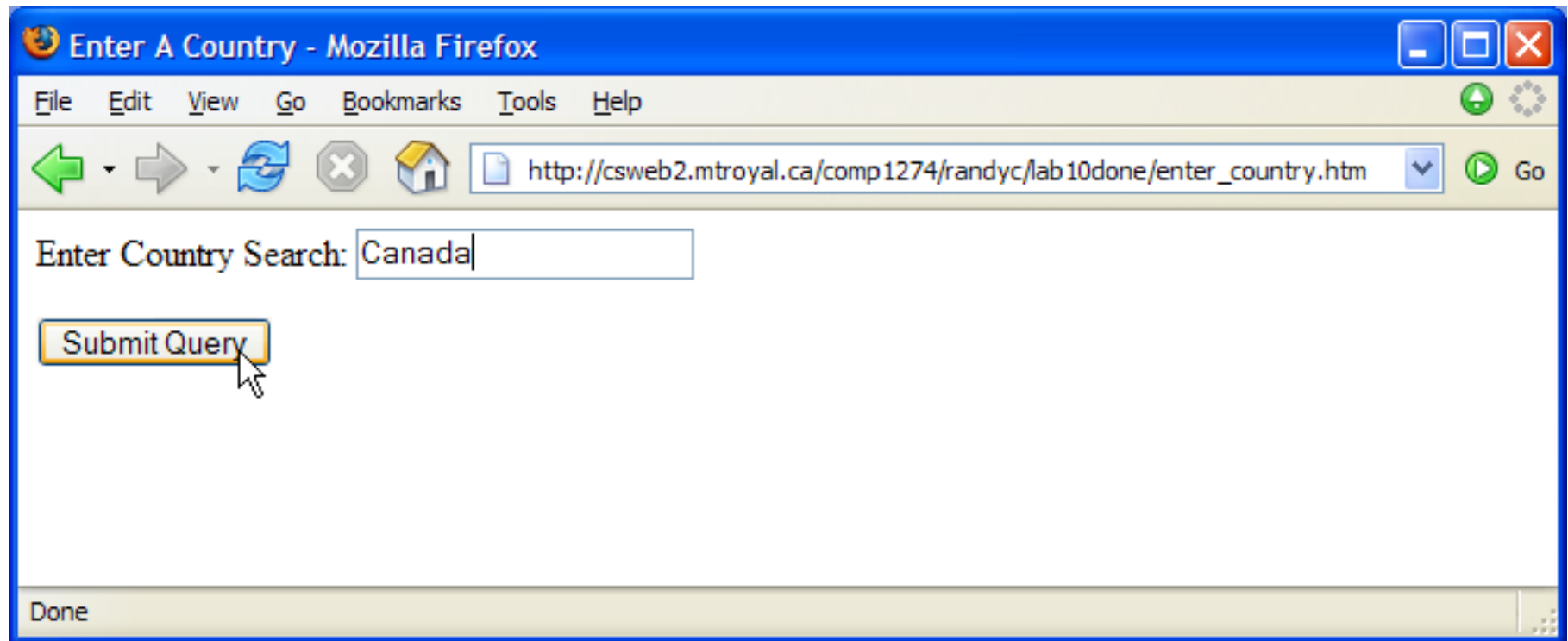
<HTML><HEAD><TITLE>Enter A Country</TITLE></HEAD>
<BODY>
<FORM METHOD=POST ACTION=form_filter.asp>
  Enter Country Search:
  <INPUT TYPE=TEXT NAME=Search><P>
  <INPUT TYPE=SUBMIT>
</FORM>
</BODY></HTML>
```



# 5. Browser displays response



## 6. User submits data



## 7. Browser sends HTTP request to server

```
POST /comp1274/randyc/lab10done/form_filter.asp HTTP/1.1
Accept: */*
Referer: http://csweb2.mtroyal.ca/comp1274/randyc/lab10done/enter_country.htm
Accept-Language: en-us,en-ca;q=0.5
Content-Type: application/x-www-form-urlencoded
Accept-Encoding: gzip, deflate
User-Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; SV1; .NET CLR
1.1.4322; InfoPath.1; .NET CLR 2.0.50727)
Host: csweb2.mtroyal.ca
Content-Length: 13
Connection: Keep-Alive
Cache-Control: no-cache
```

**Search=Canada**

User entered form data goes here in the http request header  
as a name=value pair



# Digression: What if GET rather than POST?

```
<FORM METHOD=GET ACTION=form_filter.asp>
```

Then the user entered form data is added to the requested URL

```
GET /comp1274/randyc/lab10done/form_filter.asp?Search=Canada HTTP/1.1
```

Versus

```
<FORM METHOD=POST ACTION=form_filter.asp>
```

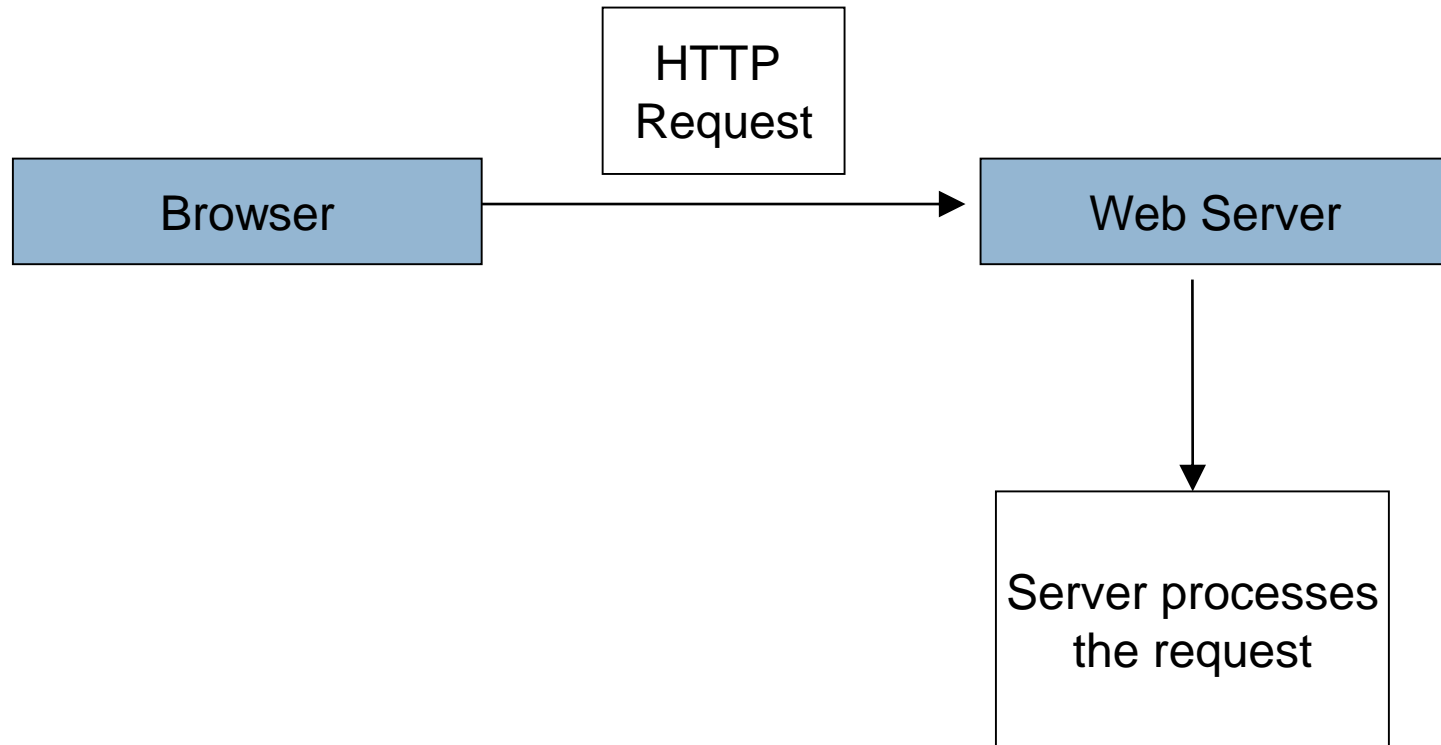
Then the user entered form data is added to the end of HTTP request header

```
POST /comp1274/randyc/lab10done/form_filter.asp HTTP/1.1
```

*rest of HTTP request header goes here*

```
Search=Canada
```

## 8. Server receives and processes the HTTP request

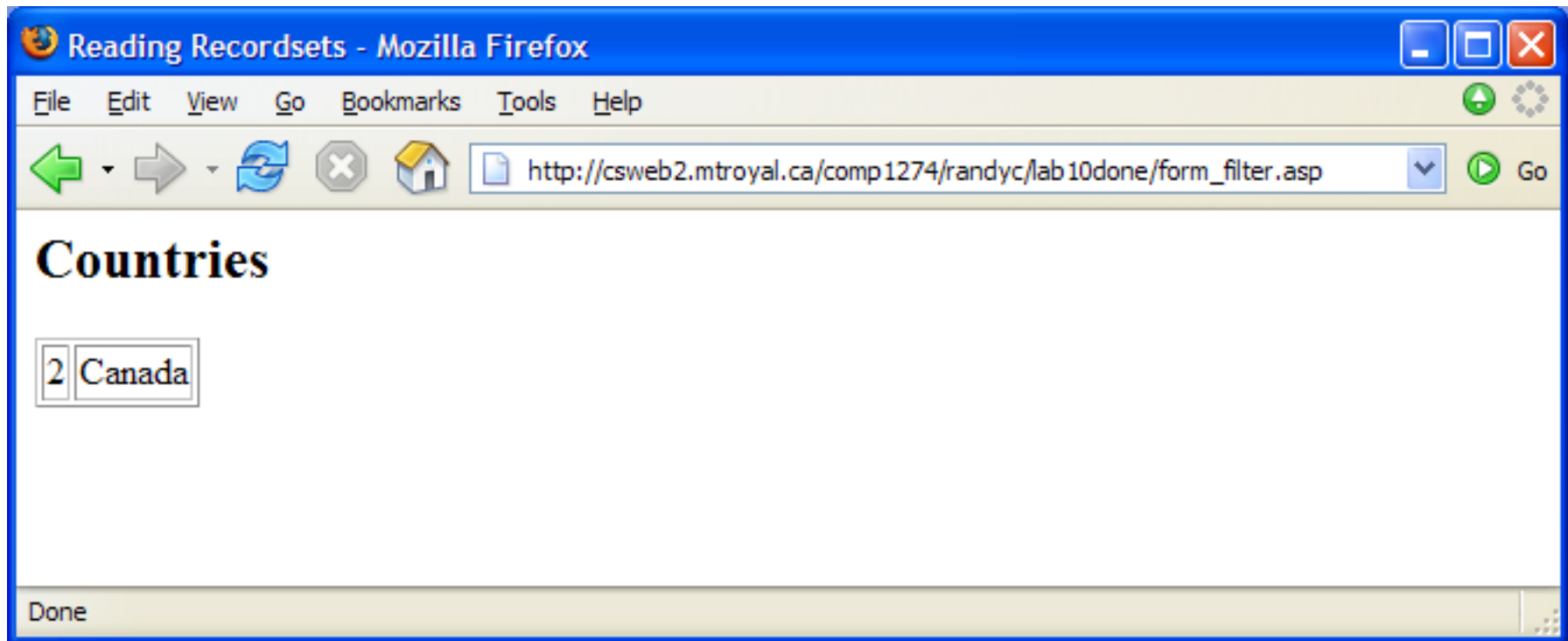


## 9. Server script generates response sent back to browser

```
HTTP/1.1 200 OK
Server: Microsoft-IIS/5.0
Date: Thu, 30 Mar 2006 19:51:06 GMT
Content-Length: 164
Content-Type: text/html
Cache-control: private

<HTML><HEAD><TITLE>Reading Recordsets</TITLE></HEAD>
<BODY>
<H2>Countries</H2>
<TABLE BORDER=1>
<TR><TD>2</TD><TD>Canada</TD></TR>
</TABLE>
</BODY></HTML>
```

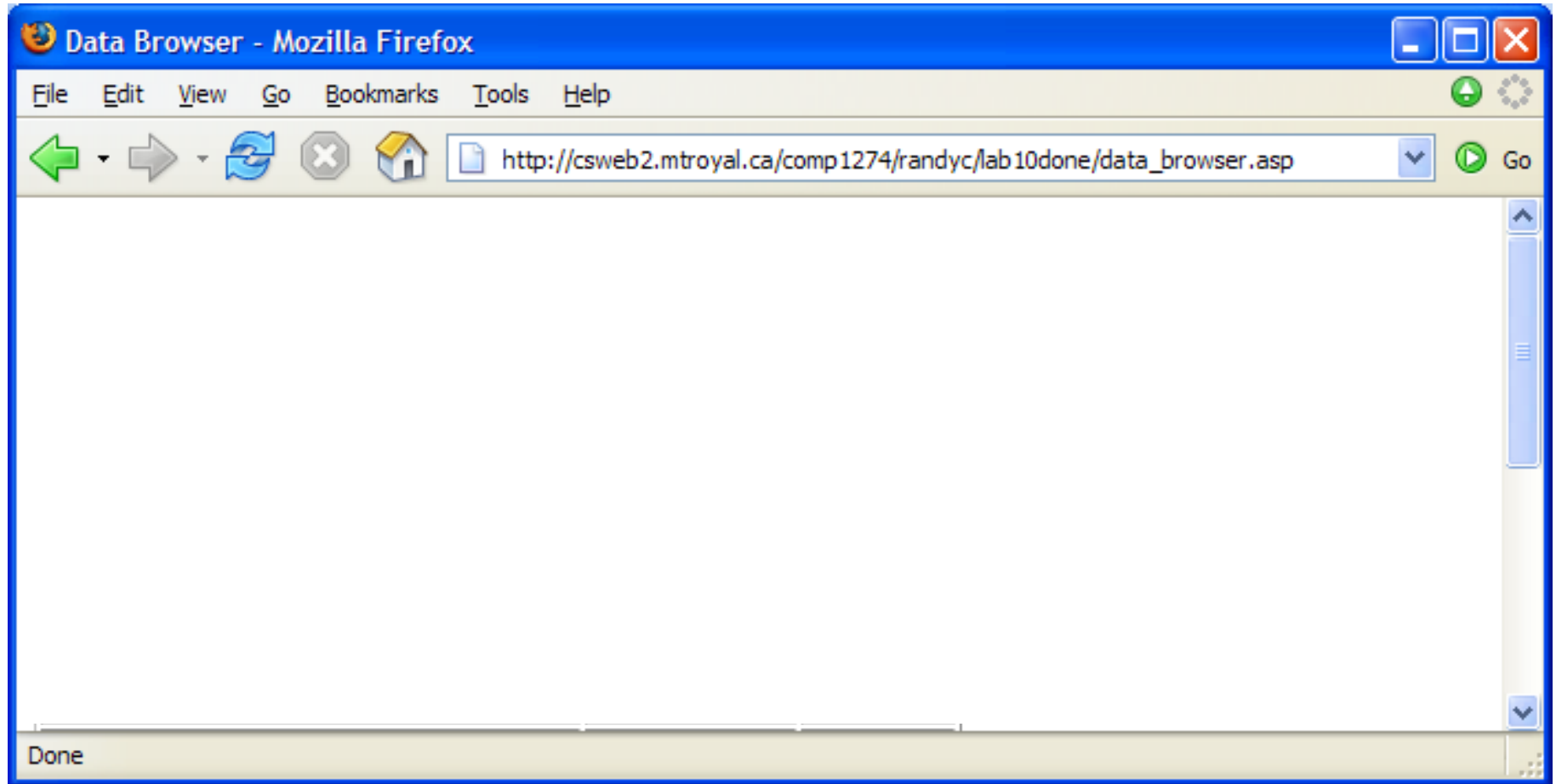
# 10. Browser displays the response



# HTTP EXAMPLE 2



# 1. User makes request



## 2. Browser sends HTTP request to server

```
GET /comp1274/randyc/lab10done/data_browser.asp HTTP/1.1
```

```
Accept: */*
```

```
Accept-Language: en-us,en-ca;q=0.5
```

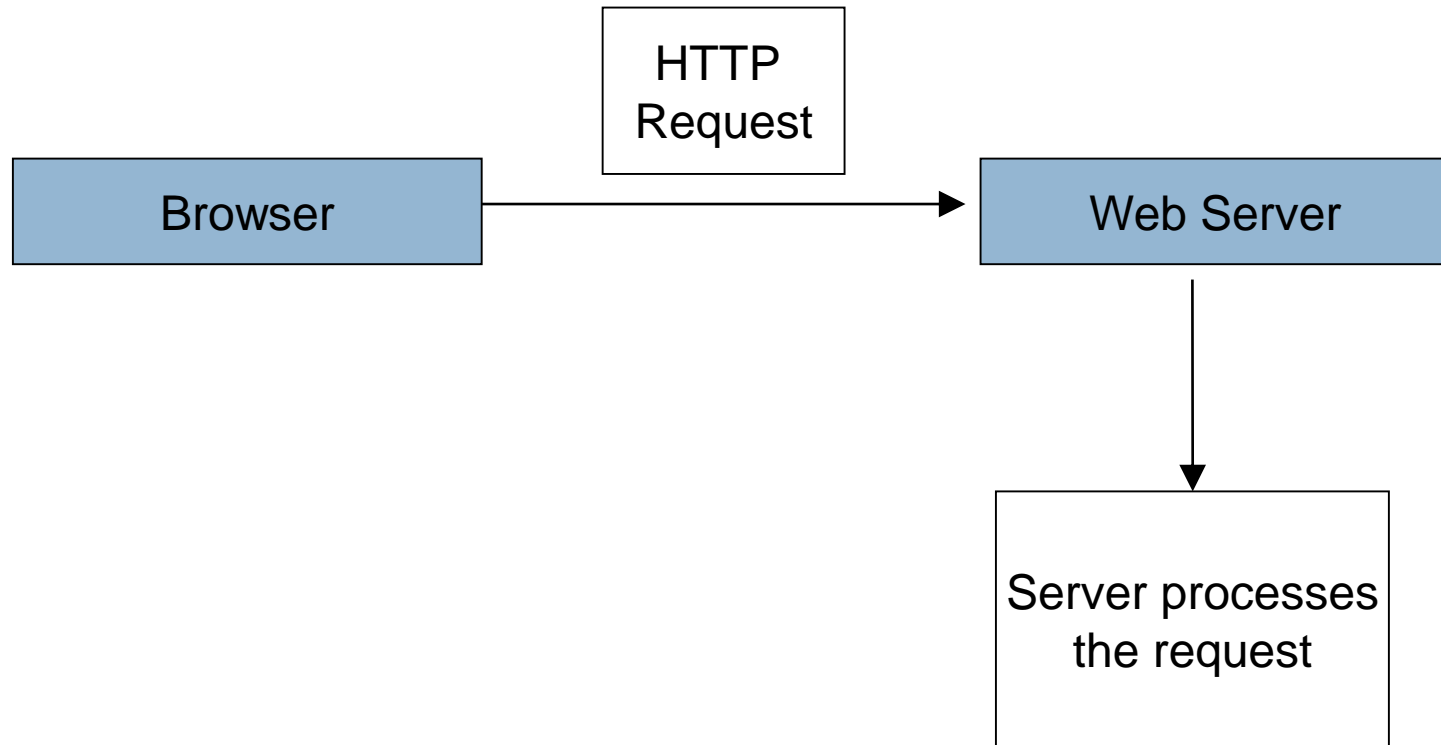
```
Accept-Encoding: gzip, deflate
```

```
User-Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; SV1; .NET  
CLR 1.1.4322; InfoPath.1; .NET CLR 2.0.50727)
```

```
Host: csweb2.mtroyal.ca
```

```
Connection: Keep-Alive
```

### 3. Server receives and processes the HTTP request



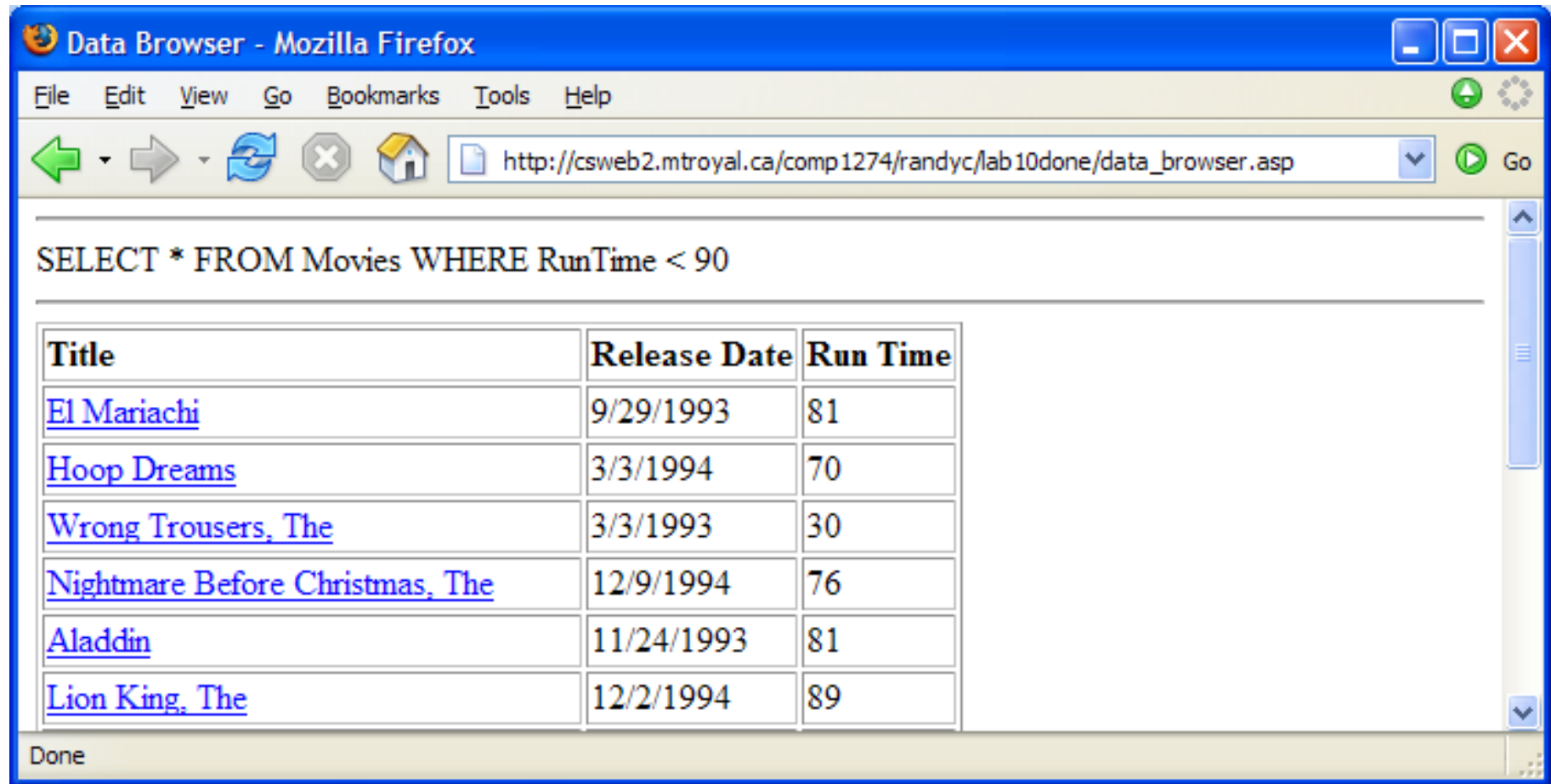


## 4. Server script generates response sent back to browser

```
HTTP/1.1 200 OK
Server: Microsoft-IIS/5.0
Date: Thu, 30 Mar 2006 19:51:06 GMT
Content-Length: 1590
Content-Type: text/html
Cache-control: private

<HTML><HEAD><TITLE>Data Browser</TITLE></HEAD>
<BODY>
<HR>SELECT * FROM Movies WHERE RunTime < 90<HR>
<TABLE BORDER=1>
  <TR>
    <TD><B>Title</B></TD>
    <TD><B>Release Date</B></TD>
    <TD><B>Run Time</B></TD>
  </TR>
  ...
```

# 5. Browser displays the response



The screenshot shows a Mozilla Firefox browser window with the title "Data Browser - Mozilla Firefox". The address bar displays the URL `http://csw2b2.mtroyal.ca/comp1274/randyc/lab10done/data_browser.asp`. The page content displays an SQL query: `SELECT * FROM Movies WHERE RunTime < 90`. Below the query, a table lists movie data:

Title	Release Date	Run Time
<a href="#">El Mariachi</a>	9/29/1993	81
<a href="#">Hoop Dreams</a>	3/3/1994	70
<a href="#">Wrong Trousers, The</a>	3/3/1993	30
<a href="#">Nightmare Before Christmas, The</a>	12/9/1994	76
<a href="#">Aladdin</a>	11/24/1993	81
<a href="#">Lion King, The</a>	12/2/1994	89

The status bar at the bottom of the browser window shows "Done".

## 6. User makes request (click on a link)

Data Browser - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://csweb2.mtroyal.ca/comp1274/randyc/lab10done/data\_browser.asp

Go

SELECT \* FROM Movies WHERE RunTime < 90

Title	Release Date	Run Time
<a href="#">El Mariachi</a>	9/29/1993	81
<a href="#">Hoop Dreams</a>	3/3/1994	70
<a href="#">Wrong Trousers, The</a>	3/3/1993	30
<a href="#">Nightmare Before Christmas, The</a>	12/9/1994	76
<a href="#">Aladdin</a>	11/24/1993	81
<a href="#">Lion King, The</a>	12/2/1994	89

http://csweb2.mtroyal.ca/comp1274/randyc/lab10done/movie.asp?ID=84

## 7. Browser sends HTTP request to server

```
GET /comp1274/randyc/lab10done/movie.asp?ID=84 HTTP/1.1
Accept: */*
Referer: http://csweb2.mtroyal.ca/comp1274/randyc/lab10done/data_browser.asp
Accept-Language: en-us,en-ca;q=0.5
Accept-Encoding: gzip, deflate
User-Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; SV1; .NET CLR
1.1.4322; InfoPath.1; .NET CLR 2.0.50727)
Host: csweb2.mtroyal.ca
Connection: Keep-Alive
```

## 8. Server receives request, processes it, and generates response

```
HTTP/1.1 200 OK
Server: Microsoft-IIS/5.0
Date: Thu, 30 Mar 2006 19:51:06 GMT
Content-Length: 585
Content-Type: text/html
Cache-control: private

<HTML><HEAD><TITLE>Nightmare Before Christmas, The</TITLE></HEAD>
<BODY>
<H1>Nightmare Before Christmas, The</H1>
Directed by <B>Henry Selick</B><BR>
Released on 12/9/1994<BR>
Movie length is 76 minutes
<H2>Summary</H2>
...
```

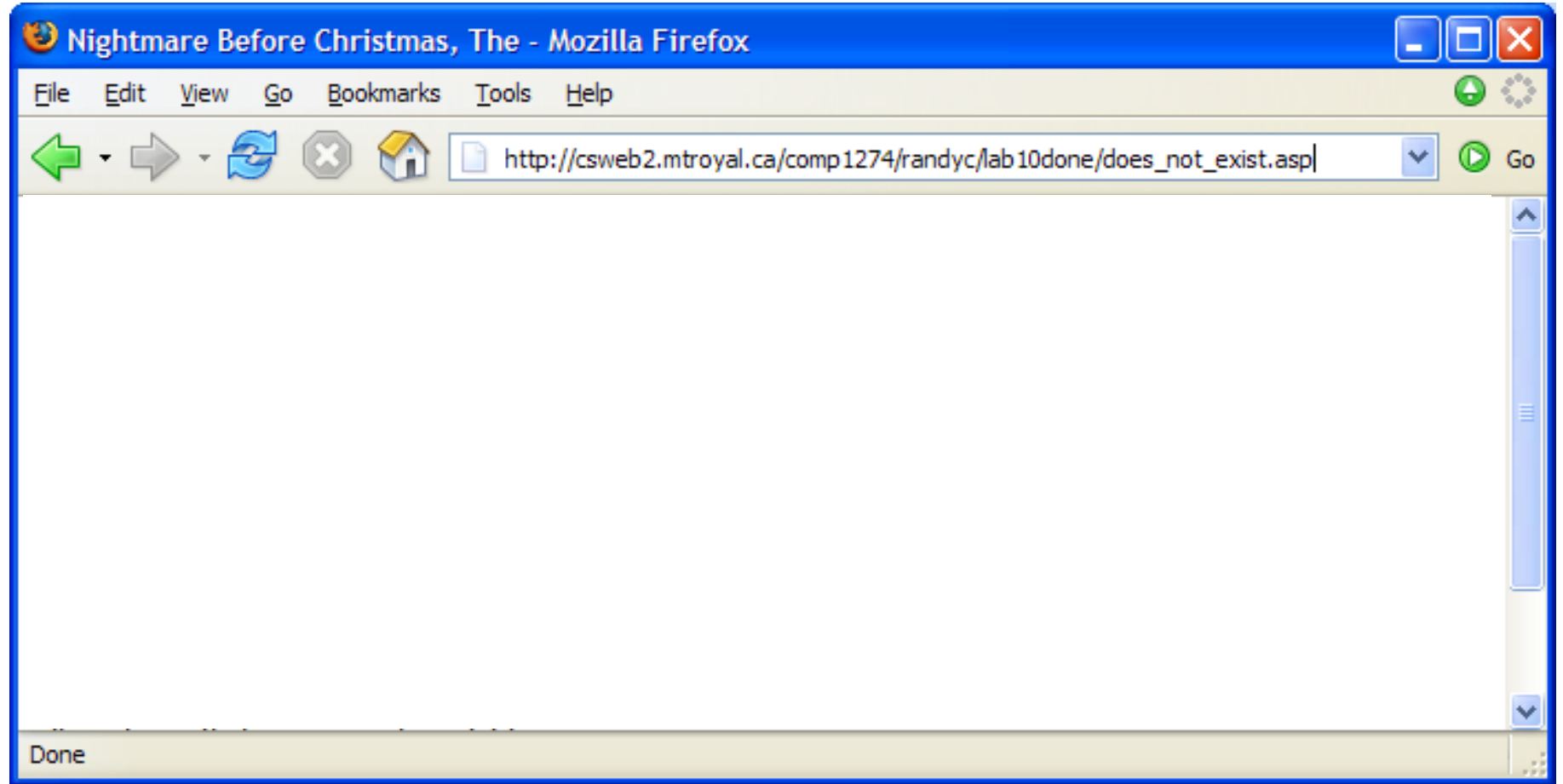
## 9. Browser displays the response



# HTTP EXAMPLE 3



# 1. User makes request





## 2. Browser sends HTTP request to server

```
GET /comp1274/randyc/lab10done/does_not_exist.asp HTTP/1.1
```

```
Accept: */*
```

```
Accept-Language: en-us,en-ca;q=0.5
```

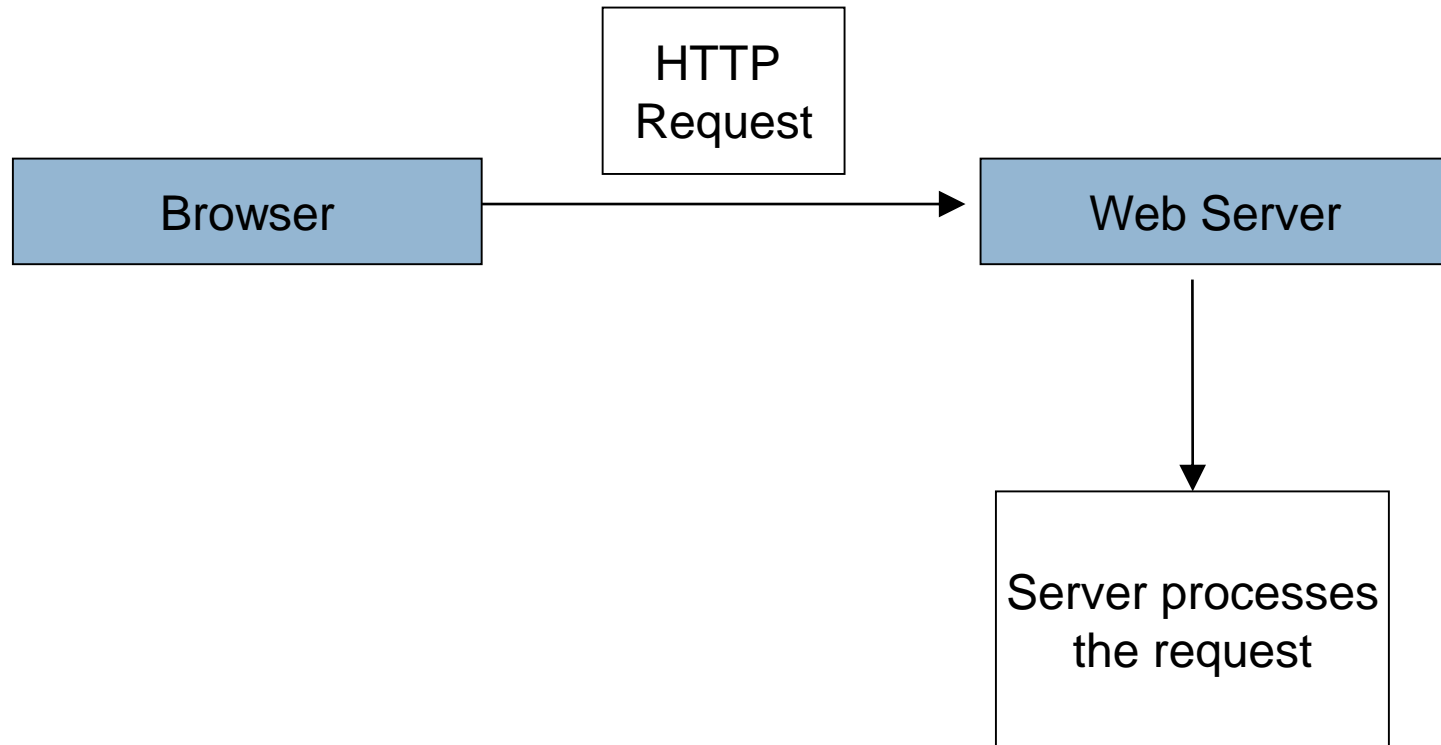
```
Accept-Encoding: gzip, deflate
```

```
User-Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; SV1; .NET  
CLR 1.1.4322; InfoPath.1; .NET CLR 2.0.50727)
```

```
Host: csweb2.mtroyal.ca
```

```
Connection: Keep-Alive
```

### 3. Server receives and processes the HTTP request



## 4. Server receives request, processes it, and generates response

HTTP/1.1 **404 Object Not Found**

Server: Microsoft-IIS/5.0

Date: Thu, 30 Mar 2006 19:51:06 GMT

Content-Length: 4040

Content-Type: text/html

Cache-control: private

<html>

...

<title>The page cannot be found</title>

...

<body>

<table>

...

The page you are looking for might have been removed, had its

...

# 5. Browser displays the response

