

# How can I serve an image to the browser using Struts 2 + Hibernate 3?

Asked 16 years, 2 months ago   Modified 12 years, 5 months ago

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2



I am developing a web application using Struts 2.1.2 and Hibernate 3.2.6.GA. I have an entity, `User`, which I have mapped to a table `USERS` in the DB using Hibernate. I want to have an image associated with this entity, which I plan to store as a `BLOB` in the DB. I also want to display the image on a webpage along with other attributes of the `User`.

The solution I could think of was to have a table `IMAGES(ID, IMAGE)` where `IMAGE` is a `BLOB` column. `USERS` will have an `FK` column called `IMAGEID`, which points to the `IMAGES` table. I will then map a property on `User` entity, called `imageId` mapped to this `IMAGEID` as a `Long`. When rendering the page with a JSP, I would add images as `` etc, and have an Action which reads the image and streams the content to the browser, with the headers set to cache the image for a long time.

Will this work? Is there a better approach for rendering images stored in a DB? Is storing such images in the DB

the right approach in the first place?

hibernate

image

struts2

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edited Jul 18, 2012 at 7:27

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asked Sep 29, 2008 at 22:57



Binil Thomas

13.8k ● 10 ● 58 ● 70

4 Answers

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4



Yes your suggested solution will work. Given that you are working in a Java environment storing the images in the database is the best way to go. If you are running in a single server environment with an application server that will let you deploy in an exploded format technically you could store the images on disk but that wouldn't be the best practice. One suggestion would be to use a servlet instead of a JSP. To get good browser behavior you want the browser to think that the file type that it is displaying matches the file type that it is expecting. Despite the existence of mime type headers the file extension is still really important. So you want a link that looks like this:

```
<a href="foo.jsp">
  <servlet-name>ImageServlet</servlet-name>
  <servlet-class>com.example.ImageServlet</servlet-cla
</servlet>
<servlet-mapping>
  <servlet-name>ImageServlet</servlet-name>
  <url-pattern>/imageservlet/*</url-pattern>
</servlet-mapping>
```

Then in your servlet simply parse the request URL for the image ID rather than using the query string as the query string will confuse some browsers. Using the query string won't break browsers outright but you'll get odd behavior with regards to caching and some browsers may report the content as unsafe.

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edited Sep 30, 2008 at 6:37

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answered Sep 29, 2008 at 23:34



Craig Wohlfeil

647 ● 9 ● 9

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I have implemented this using this mechanism (using an `ServletResponseAware` Action instead of a Servlet). I am not picking this as an accepted answer hoping that other mechanisms might come up. I have upvoted this, so that this is the best known answer as of now. — Binil Thomas Sep 30, 2008 at 20:55

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Internet Explorer does not support that style of image embedding.

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answered Sep 29, 2008 at 23:15



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Thomas R

3,036 ● 5 ● 32 ● 31



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Just tested

[rifers.org/blogs/gbevin/2005/4/11/embedding\\_images\\_inside\\_html](http://rifers.org/blogs/gbevin/2005/4/11/embedding_images_inside_html) with IE7 and it works just fine. – Jorge Ferreira Sep 29, 2008 at 23:18

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If you want to display the user image directly with their properties perhaps you can consider embedding the image data directly in the HTML.



Using a special data: URL scheme you are able to embed any mime data inside a HTML page, the format is as follows:



```
data:<mimetype>;base64,<data>
```

needs to be replaced by the mime-type of your data (image/png for instance) and is the base64 encoded string of the actual bytes of the file.

See [RFC 2557](#).

Example:

```
<img  
src="
```

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edited Sep 29, 2008 at 23:17

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answered Sep 29, 2008 at 23:11



Jorge Ferreira

97.8k ● 25 ● 126 ● 134

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I just read that this does not work with IE, until version 8 is released. Also, the image is not cached on the browser. So, despite the ease of coding, I think I will use my original scheme. – [Binil Thomas](#) Sep 30, 2008 at 3:05

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also remember that there is a (really strict) limit on the length of such a string. From 1k chars to 100k depending on browser. – [pavel\\_kazlou](#) Dec 28, 2011 at 14:33

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Your suggested solution would work perfectly. I have done the same thing.

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But you don't need a servlet for this. Struts2 has already a stream result.



See this [Struts 2 Example](#) which describes exactly what you want.



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answered Jan 30, 2009 at 14:35

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kazanaki

8,054 ● 8 ● 53 ● 79

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