Servlet

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what is servlet?

- It's an middle tier for the web application written by Java language (Web Middleware)

Steps of the servlet

1. read data from client (include applet and custom http client program) (html form data)

2. read the implicit http request data sent by browser (http request header)

3. generate the result

4. send explicit data to client

5. send the implicit data to client

Life Cycle

1. init

2. service

   when get a request, first, check the type(get/post/put/delete), then call doXXX method.

   when your task need to handle both post and get, you can call doGet in the doPost method.

3. doGet or doPost (doXXX e.g. doPut doDelete)

4. destory

SingleThreadModel interface

public class YourServlet extends HttpServlet implements SingleThreadModel

Some common class / api

1. HttpServletRequest   HttpServletResponse

2. in HttpServlet class, there's a log method, can be used in the sub class

web.xml

1. This is an web application describe file, we need to add xml entry to specify the servlet, e.g.
   ```
   <servlet>
       <servlet-name>ServletName</servlet-name>
       <servlet-class>class place</servlet-class>
   </servlet>
   <servlet-mapping>
        <servlet-name>ServletName</servlet-name>
        <url-pattern>url pattern</url-pattern>
   </servlet-mapping>
   ```

2. in servlet3.0 there's an annotation WebServlet can be used instead of xml entry

mostly, we add an action attribute in the html code form tag to call servlet, when submit form, all data from page will be warped into an HttpServletRequest object, and call the Servlet's doXXX method.