

## CS 6847 : Cloud Computing

## Assignment 2: Restful Web Service

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Restful Web Service is implemented using Apache Jetty Application Server. When the application is started it runs on localhost at port 8888, the url of service is <http://127.0.0.1:8888/> and it takes a parameter val whose value is the string to be reversed.

Once the request is received, url parameter is extracted and reversed and sent back as a response. User receives the response string as reverse of the input string.

If no value is sent, it is treated as null string and processed accordingly.

2. Example:

1. Request: <http://127.0.0.1:8888/?val=java>  
Response: avaj
2. Request: <http://127.0.0.1:8888/?val=java+cpp>  
Response: ppc avaj
3. Request: <http://127.0.0.1:8888/?val=2%2b3>  
Response: 3+2

3. Implementation:

On the server side a server instance is create at the specified address and port no. An instance of AbstractHandler class is created and registered to the server as the handler. All the requestests sent to ip:port are now redirected to the handler.

Handler class overrides a method,

```
public void handle(String url, Request req, HttpServletRequest servletReq,  
                  HttpServletResponse servletResp) throws IOException,  
                  ServletException
```

All the parameters sent as a request can be extracted from req object using req.getParameter("val"). To send the response, servletResp.getWriter() PrintWriter object is used.