

Cloud Computing: Rest based Web Services - Examples

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Examples that we will discuss today

1. Image Service for uploading and retrieving images
2. Like button:
 - How we can get the clicks from users?
 - How can we store them in database?
3. Assignment No – 1
4. Q&A

Image Service – Upload an Image

@POST

@Consumes("image/jpeg, image/jpg")

public Response upload(InputStream in,
@HeaderParam("Content-Type") String fileType,
@HeaderParam("Content-Length") long fileSize) **throws**

IOException {

...

...

...

}

List of MIME types

Header parameters to determine length of the content and choose appropriate storage. Also determine the handler of these data type.

XMLHttpRequest State Diagram

```
interface XMLHttpRequest : XMLHttpRequestEventTarget {  
    // event handler attributes  
    attribute EventListener onreadystatechange;  
  
    // ready states  
    const unsigned short UNSENT = 0;  
    const unsigned short OPENED = 1;  
    const unsigned short HEADERS_RECEIVED = 2;  
    const unsigned short LOADING = 3;  
    const unsigned short DONE = 4;  
    readonly attribute unsigned short readyState;  
    ....  
    ....
```

XMLHttpRequest ... Request

```
// request metadata
void open(in DOMString method, in DOMString url);
void open(in DOMString method, in DOMString url, in boolean async);
void open(in DOMString method, in DOMString url, in boolean async, in
DOMString user);
void open(in DOMString method, in DOMString url, in boolean async, in
DOMString user, in DOMString password);
void setRequestHeader(in DOMString header, in DOMString value);

// request
readonly attribute XMLHttpRequestUpload upload;
void send();
void send(in ByteArray data);
void send(in DOMString data);
void send(in Document data);
void abort();
```

XMLHttpRequest Response

```
// response metadata
DOMString getAllResponseHeaders();
DOMString getResponseHeader(in DOMString header);
readonly attribute unsigned short status;
readonly attribute DOMString statusText;

// response body
void overrideMimeType(mime);
readonly attribute ByteArray responseBody;
readonly attribute DOMString responseText;
readonly attribute Document responseXML;
};
```

Lets look at the example

Implementing the Like Button similar to FaceBook

Like Button

The Like button is the quickest way for people to share content with their friends. A single click on the Like button will 'like' pieces of content on the web and share them on Facebook. You can also display a Share button next to the Like button to let people add a personal message and customize who they share with.

Exercise:

Work with your team members to implement the Like Button.
Discuss the design of your service with the class

Assignment -1