五、文件上传

1、服务端

文件上传需要服务端的配合。我们可在本机搭建tomcat测试环境。关于tomcat在Mac OSX下的安装配置，参考作者另一博文《安装Tomcat到Mac OSX》。

打开Eclipse，新建web工程。在其中新建一个Servlet UploadServlet:

```
import  java.io.*;
import  java.util.*;

import  javax.servlet.ServletException;
import  javax.servlet.http.HttpServlet;
import  javax.servlet.http.HttpServletRequest;
import  javax.servlet.http.HttpServletResponse;

import  org.apache.commons.fileupload.FileItem;
import  org.apache.commons.fileupload.disk.DiskFileItemFactory;
import  org.apache.commons.fileupload.servlet.ServletFileUpload;

public  class  UploadServlet extends  HttpServlet {

    private  boolean  isMultipart ;
    private  String filePath ,title ;
    private  int  maxFileSize = 500 * 1024;
    private  int  maxMemSize = 4 * 1024;
    private  File file ;

    public  void  init( ){
       // 从web.xml 的context_param 中获得上传文件目录（ /data ）.
       filePath =
             getServletContext().getInitParameter("file-upload" );
   }
    public  void  doPost(HttpServletRequest request,
                HttpServletResponse response)
                 throws  ServletException, java.io.IOException {

       // 检查表单是否带有 ENCTYPE="multipart /form-data"
        isMultipart = ServletFileUpload.isMultipartContent (request);
      response.setContentType("text/html" );
      response.setCharacterEncoding("GBK" );
      java.io.PrintWriter out = response.getWriter( );
       if  ( ! isMultipart ){
         out.println( "<html>" );
         out.println( "<head>" );
         out.println( "<title>Servlet upload</title>" );
         out.println( "</head>" );
         out.println( "<body>" );
         out.println( "<p>No file uploaded</p>" );
         out.println( "</body>" );
         out.println( "</html>" );
          return ;
      }
       DiskFileItemFactory factory = new  DiskFileItemFactory();
       // 内存最大可缓存尺寸
       factory.setSizeThreshold( maxMemSize );
       // 指定当数据超过内存最大可缓存尺寸时，临时文件的目录
       factory.setRepository( new  File( filePath + "temp" ));

       // 文件上传对象
      ServletFileUpload upload = new  ServletFileUpload(factory);
       // 设置文件上传最大允许尺寸
       upload.setSizeMax(  maxFileSize );

        try {
      out.println("<%@page contentType='text/html; charset=GBK'%>" );
      out.println("<html>" );
      out.println("<head>" );
      out.println("<title>Servlet upload</title>" );
      out.println("</head>" );
      out.println("<body>" );
       // 获取multipart /form-data 内容，其中每个field 被分成不同part
       List fileItems = upload.parseRequest(request);
       // 枚举每个field
       Iterator i = fileItems.iterator();
       while  ( i.hasNext () )
      {
         FileItem fi = (FileItem)i.next();
          if  ( !fi.isFormField () )  // 如果field 为File
         {
             // 获取field 的name 或id
            String fieldName = fi.getFieldName();
            String fileName = fi.getName();
             // 文件名中文处理
               fileName=new  String(fileName.getBytes(),"gbk" );
            out.println("file name:" +fileName+ "<br>" );
            String contentType = fi.getContentType();
             boolean  isInMemory = fi.isInMemory();
             long  sizeInBytes = fi.getSize();
             // 把上传数据写入本地磁盘
               if ( fileName.lastIndexOf( "//" ) >= 0 ){
                file = new  File( filePath +
               fileName.substring( fileName.lastIndexOf("//" ))) ;
            }else {
                file = new  File( filePath +
               fileName.substring(fileName.lastIndexOf("//" )+1)) ;
            }
```

```
                    fi.write( file ) ;
                 out.println("Uploaded Filename: " + fileName + "<br>" );
            } else { // 如果field 为Form Field
                title =fi.getFieldName();
                if ( title .equals( "title" )){
                 title = new  String(fi.get(),"gbk" );
                 out.println("title:" + title + "<br>" );
                }
            }
        }
         out.println( "</body>" );
        out.println("</html>" );
    } catch (Exception ex) {
        System. out .println(ex);
    }
   }
   public  void  doGet(HttpServletRequest request,
                         HttpServletResponse response)
         throws  ServletException, java.io.IOException {

         throw  new  ServletException( "GET method used with " +
               getClass( ).getName( )+": POST method required." );
    }
}
```

再新建一个upload.jsp页面作为测试：

```
<%@ page contentType = "text/html; charset=GBK" language = "java"
import = "java.util.*" %>
< html >
< head >
< title > fbysss  UploadBean 示例</ title >
<!--meta http -equiv ="Content-Type" content="text/html ; charset
=iso -8859-1"-->
<!--meta http -equiv ="Content-Type" content="text/html ; charset
=gb2312"-->
</ head >
< FORM name = "form1" METHOD = "POST" ACTION = "UploadServlet"
ENCTYPE = "multipart/form-data" >
< input name = "title" type = "text" value = "  请选择文件 " >
< p > 附件</ p >
< p >  < input name = "attach" type = "FILE" id = "attach" size = "50"
 >  </ p >
< input name = "ok" type = "submit" value = "  提交 " >
</ form >
</ html >
```

将工程部署到tomcat中，启动tomcat，访问 http://localhost:8080/test/upload.jsp ，显示界面如下：

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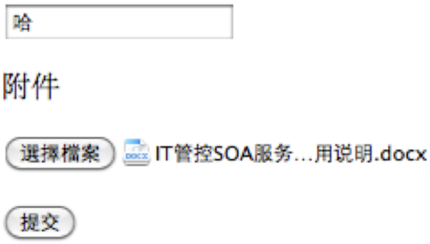
ASIHTTPRequest系列(三)：文件上传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附件

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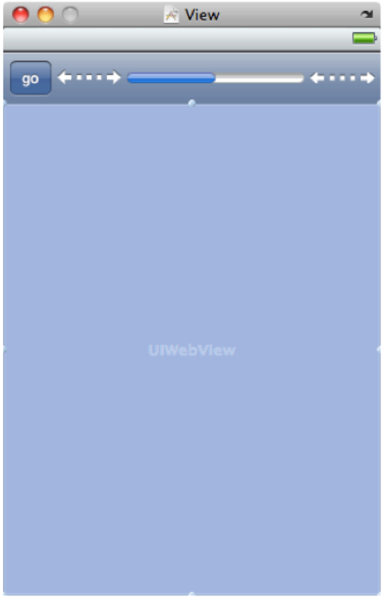
选择一个文件进行上传，然后到/data目录下检查该文件是否上传成功。

2、iPhone客户端

新建类，选择UIViewController subclass，并勾上“With XIB for user interface”，命名为 UploadViewController。

用IB 打开 Xib 文件，在其中拖入1个 UIToolBar 、1个 UIBarButtonItem 和1个 UIWebView、1个UIProgressView：



在Xcode中声明必要的变量和 IBOutlet / IBAction：

```
#import <UIKit/UIKit.h>
#import "ASIFormDataRequest.h"
#import "ASIHTTPRequest.h"

@interface UploadViewController : UIViewController {
UIBarItem * button ;
UIWebView * webView ;
```

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ASIHTTPRequest系列(三)：文件上传

```
UIProgressView * progress ;
ASIFormDataRequest * request ;
NSURL * url ;
}
@property ( retain ,nonatomic ) IBOutlet UIBarItem* button;
@property ( retain ,nonatomic ) IBOutlet UIProgressView* progress;
@property ( retain ,nonatomic ) IBOutlet UIWebView* webView;
-( IBAction )go;
-( void )printBytes:( NSString *)str encoding:( NSStringEncoding )enc;
@end
```

将所有出口正确地连接到UpdateController.xib 中，保存。

打开MainWindow.xib，拖一个UIViewController进去并将其Identifier改为UpdateController，再将它连接到Window对象的rootViewController。

编写UIButton 的 Touch up inside 事件代码如下：

```
-( IBAction )go{
NSString * s= @" 哈哈哈" ;
url =[ NSURL  URLWithString :
@"http://localhost:8080/test/UploadServlet" ];
request = [ ASIFormDataRequest  requestWithURL : url ];
// 字符串使用 GBK 编码，因为 servlet 只识别GBK
NSStringEncoding enc= CFStringConvertEncodingToNSStringEncoding (
kCFStringEncodingMacChineseSimp );
[ request  setStringEncoding :enc];
[ self  printBytes :s encoding :enc];// 打印GBK 编码字符
[ request  setPostValue :s forKey : @"title" ];
[ request  setFile : @"/Users/kmyhy/Documents/iphone/Iphone 开发介绍.
doc"  forKey : @"attach" ];
[ request  setDelegate : self ];
[ request  setDidFinishSelector : @selector ( responseComplete )];
[ request  setDidFailSelector : @selector (responseFailed)];
[ button  setEnabled : NO ];
[ request  startSynchronous ];
}
-( void )responseComplete{
// 请求响应结束，返回responseString
NSString *responseString = [ request  responseString ];
[ webView  loadHTMLString :responseString  baseURL : url ];
[ button  setEnabled : YES ];

}
-( void )respnoseFailed{
// 请求响应失败，返回错误信息
NSError *error = [ request  error ];
[ webView  loadHTMLString :[error description ] baseURL : url ];
```

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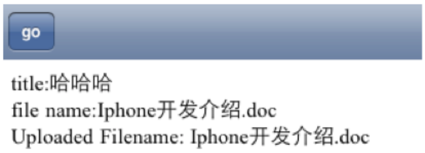
```
[ button  setEnabled : YES ];
}
-( void )printBytes:( NSString *)str encoding:( NSStringEncoding )enc{
NSLog ( @"defaultCStringEncoding:%d" ,[ NSString
defaultCStringEncoding ]);
//  根据给定的字符编码，打印出编码后的字符数组
const  char *bytes= [str  cStringUsingEncoding :enc];
for ( int i= 0 ;i< strlen (bytes);i++) {
NSLog ( @"%d %X" ,(i+ 1 ),bytes[i]);
}
}
```

编译、运行。点击go按钮，程序运行效果如下：



```
title:哈哈哈
file name:Iphone开发介绍.doc
Uploaded Filename: Iphone开发介绍.doc
```