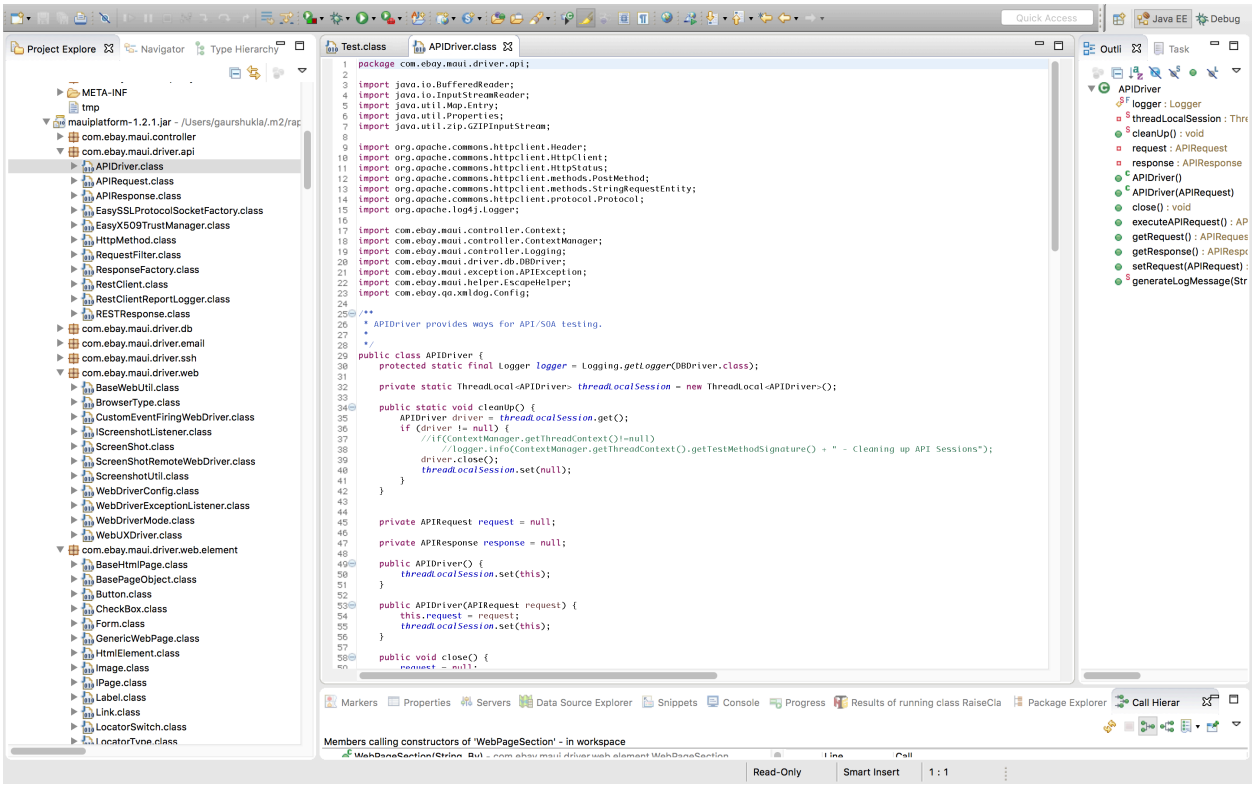
Project Explore
Navigator
Type Hierarchy
META-INF
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mauiplatform-1.2.1.jar - /Users/gaurshukla/.m2/rap
com.ebay.maui.controller
com.ebay.maui.driver.api
APIDriver.class
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APIResponse.class
EasySSLProtocolSocketFactory.class
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com.ebay.maui.driver.db
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HtmlElement.class
Image.class
IPage.class
Label.class
Link.class
LocatorSwitch.class
Test.class
APIDriver.class
package com.ebay.maui.driver.api;
import java.io.BufferedReader;
import java.io.InputStreamReader;
import java.util.Map.Entry;
import java.util.Properties;
import java.util.zip.GZIPInputStream;
import org.apache.commons.httpclient.Header;
import org.apache.commons.httpclient.HttpClient;
import org.apache.commons.httpclient.HttpStatus;
import org.apache.commons.httpclient.methods.PostMethod;
import org.apache.commons.httpclient.methods.StringRequestEntity;
import org.apache.commons.httpclient.protocol.Protocol;
import org.apache.log4j.Logger;
import com.ebay.maui.controller.Context;
import com.ebay.maui.controller.ContextManager;
import com.ebay.maui.controller.Logging;
import com.ebay.maui.driver.db.DBDriver;
import com.ebay.maui.exception.APIException;
import com.ebay.maui.helper.EscapeHelper;
import com.ebay.qa.xmldog.Config;
/**
* APIDriver provides ways for API/SOA testing.
*
*/
public class APIDriver {
protected static final Logger logger = Logging.getLogger(DBDriver.class);
private static ThreadLocal<APIDriver> threadLocalSession = new ThreadLocal<APIDriver>();
public static void cleanUp() {
APIDriver driver = threadLocalSession.get();
if (driver != null) {
//if(ContextManager.getThreadContext()!=null)
//logger.info(ContextManager.getThreadContext().getTestMethodSignature() + " - Cleaning up API Sessions");
driver.close();
threadLocalSession.set(null);
}
}
private APIRequest request = null;
private APIResponse response = null;
public APIDriver() {
threadLocalSession.set(this);
}
public APIDriver(APIRequest request) {
this.request = request;
threadLocalSession.set(this);
}
public void close() {
Outli
Task
APIDriver
logger : Logger
threadLocalSession : Thre
cleanUp() : void
request : APIRequest
response : APIResponse
APIDriver()
APIDriver(APIRequest)
close() : void
executeAPIRequest() : AP
getRequest() : APIReques
getResponse() : APIResp
setRequest(APIRequest)
generateLogMessage(Str
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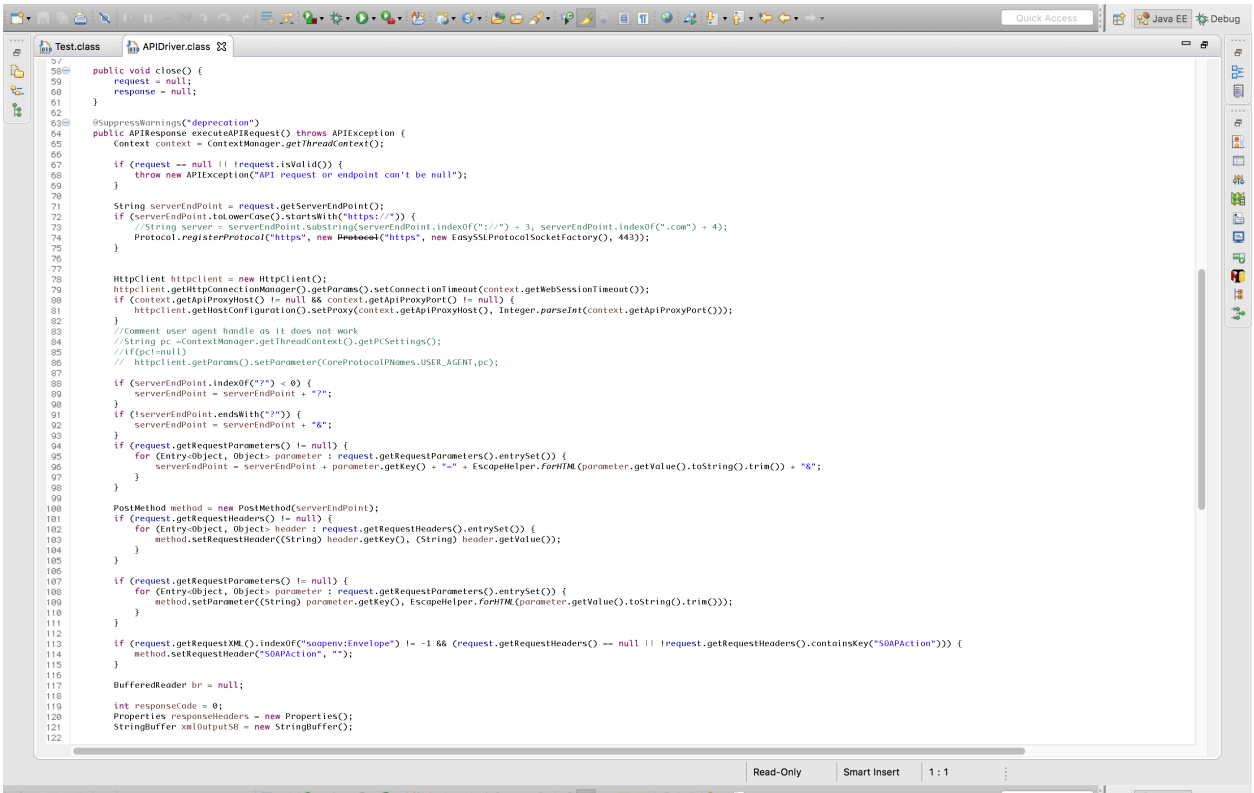

```
Test.class | APIDriver.class

    public void close() {
        request = null;
        response = null;
    }

    @SuppressWarnings("deprecation")
    public APIResponse executeAPIRequest() throws APIException {
        Context context = ContextManager.getThreadContext();

        if (request == null || !request.isValid()) {
            throw new APIException("API request or endpoint can't be null");
        }

        String serverEndPoint = request.getServerEndPoint();
        if (serverEndPoint.toLowerCase().startsWith("https://")) {
            //String server = serverEndPoint.substring(serverEndPoint.indexOf("://") + 3, serverEndPoint.indexOf(".com") + 4);
            Protocol.registerProtocol("https", new ~~Protocol~~("https", new EasySSLProtocolSocketFactory(), 443));
        }


        HttpClient httpclient = new HttpClient();
        httpclient.getHttpConnectionManager().getParams().setConnectionTimeout(context.getWebSessionTimeout());
        if (context.getApiProxyHost() != null && context.getApiProxyPort() != null) {
            httpclient.getHostConfiguration().setProxy(context.getApiProxyHost(), Integer.parseInt(context.getApiProxyPort()));
        }
        //Comment user agent handle as it does not work
        //String pc =ContextManager.getThreadContext().getPCSettings();
        //if(pc!=null)
        //  httpclient.getParams().setParameter(CoreProtocolPNames.USER_AGENT,pc);

        if (serverEndPoint.indexOf("?") < 0) {
            serverEndPoint = serverEndPoint + "?";
        }
        if (!serverEndPoint.endsWith("?")) {
            serverEndPoint = serverEndPoint + "&";
        }
        if (request.getRequestParameters() != null) {
            for (Entry<Object, Object> parameter : request.getRequestParameters().entrySet()) {
                serverEndPoint = serverEndPoint + parameter.getKey() + "=" + EscapeHelper.forHTML(parameter.getValue().toString().trim()) + "&";
            }
        }

        PostMethod method = new PostMethod(serverEndPoint);
        if (request.getRequestHeaders() != null) {
            for (Entry<Object, Object> header : request.getRequestHeaders().entrySet()) {
                method.setRequestHeader((String) header.getKey(), (String) header.getValue());
            }
        }

        if (request.getRequestParameters() != null) {
            for (Entry<Object, Object> parameter : request.getRequestParameters().entrySet()) {
                method.setParameter((String) parameter.getKey(), EscapeHelper.forHTML(parameter.getValue().toString().trim()));
            }
        }

        if (request.getRequestXML().indexOf("soapenv:Envelope") != -1 && (request.getRequestHeaders() == null || !request.getRequestHeaders().containsKey("SOAPAction"))) {
            method.setRequestHeader("SOAPAction", "");
        }

        BufferedReader br = null;

        int responseCode = 0;
        Properties responseHeaders = new Properties();
        StringBuffer xmlOutputSB = new StringBuffer();

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```

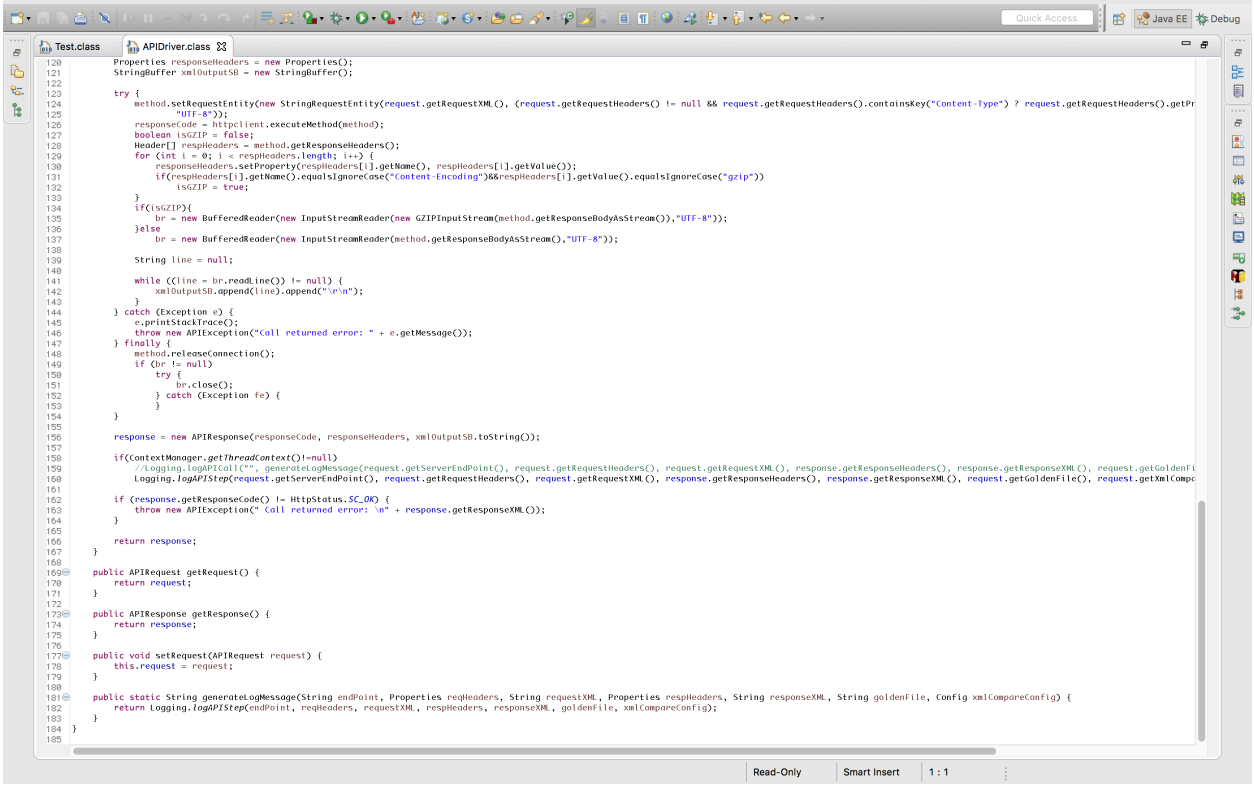

```
Test.class | APIDriver.class

        Properties responseHeaders = new Properties();
        StringBuffer xmlOutputSB = new StringBuffer();

        try {
            method.setRequestEntity(new StringRequestEntity(request.getRequestXML(), (request.getRequestHeaders() != null && request.getRequestHeaders().containsKey("Content-Type") ? request.getRequestHeaders().getPr
                    "UTF-8"));
            responseCode = httpclient.executeMethod(method);
            boolean isGZIP = false;
            Header[] respHeaders = method.getResponseHeaders();
            for (int i = 0; i < respHeaders.length; i++) {
                responseHeaders.setProperty(respHeaders[i].getName(), respHeaders[i].getValue());
                if(respHeaders[i].getName().equalsIgnoreCase("Content-Encoding")&&respHeaders[i].getValue().equalsIgnoreCase("gzip"))
                    isGZIP = true;
            }
            if(isGZIP){
                br = new BufferedReader(new InputStreamReader(new GZIPInputStream(method.getResponseBodyAsStream()),"UTF-8"));
            }else
                br = new BufferedReader(new InputStreamReader(method.getResponseBodyAsStream(),"UTF-8"));

            String line = null;

            while ((line = br.readLine()) != null) {
                xmlOutputSB.append(line).append("\r\n");
            }
        } catch (Exception e) {
            e.printStackTrace();
            throw new APIException("Call returned error: " + e.getMessage());
        } finally {
            method.releaseConnection();
            if (br != null)
                try {
                    br.close();
                } catch (Exception fe) {
                }
        }

        response = new APIResponse(responseCode, responseHeaders, xmlOutputSB.toString());

        if(ContextManager.getThreadContext()!=null)
            //Logging.logAPICall("", generateLogMessage(request.getServerEndPoint(), request.getRequestHeaders(), request.getRequestXML(), response.getResponseHeaders(), response.getResponseXML(), request.getGoldenFi
            Logging.logAPIStep(request.getServerEndPoint(), request.getRequestHeaders(), request.getRequestXML(), response.getResponseHeaders(), response.getResponseXML(), request.getGoldenFile(), request.getXmlCompc

        if (response.getResponseCode() != HttpStatus.SC_OK) {
            throw new APIException(" Call returned error: \n" + response.getResponseXML());
        }

        return response;
    }

    public APIRequest getRequest() {
        return request;
    }

    public APIResponse getResponse() {
        return response;
    }

    public void setRequest(APIRequest request) {
        this.request = request;
    }

    public static String generateLogMessage(String endPoint, Properties reqHeaders, String requestXML, Properties respHeaders, String responseXML, String goldenFile, Config xmlCompareConfig) {
        return Logging.logAPIStep(endPoint, reqHeaders, requestXML, respHeaders, responseXML, goldenFile, xmlCompareConfig);
    }
}

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```

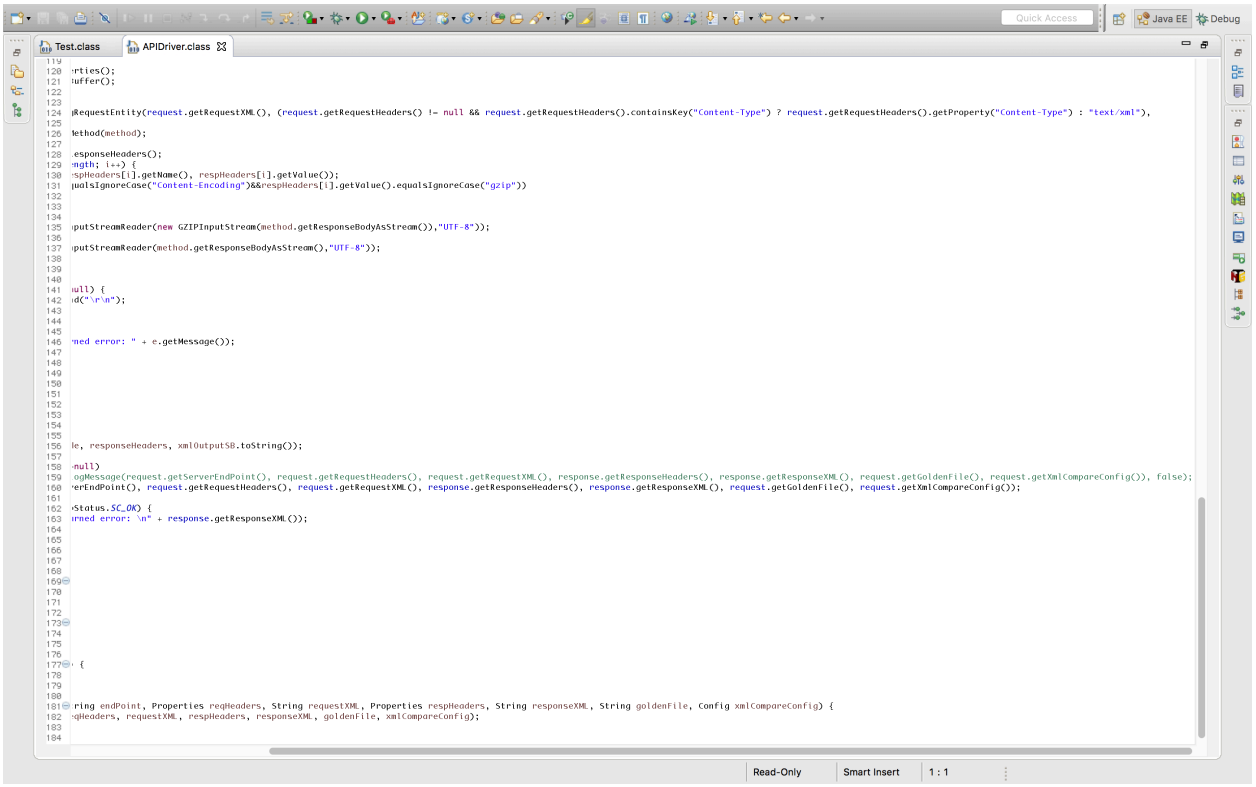
Quick Access
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Debug
Test.class
APIDriver.class
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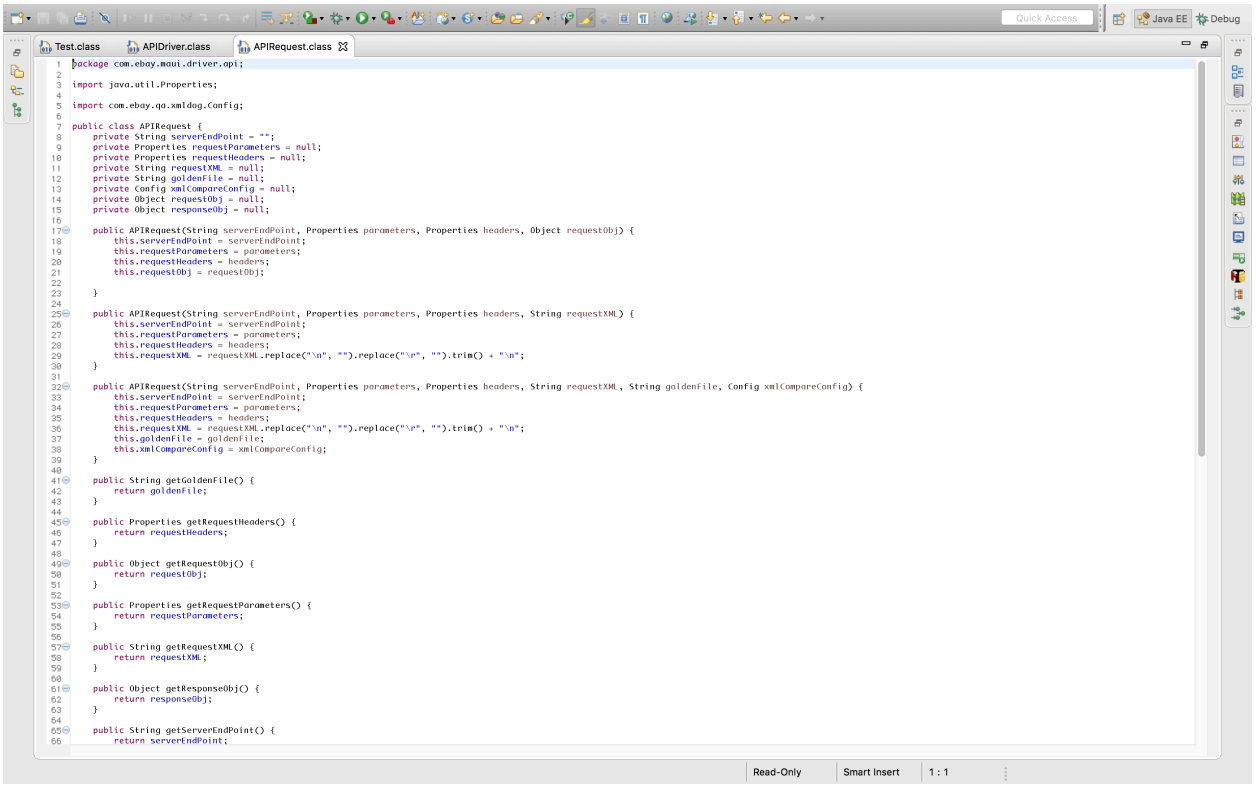
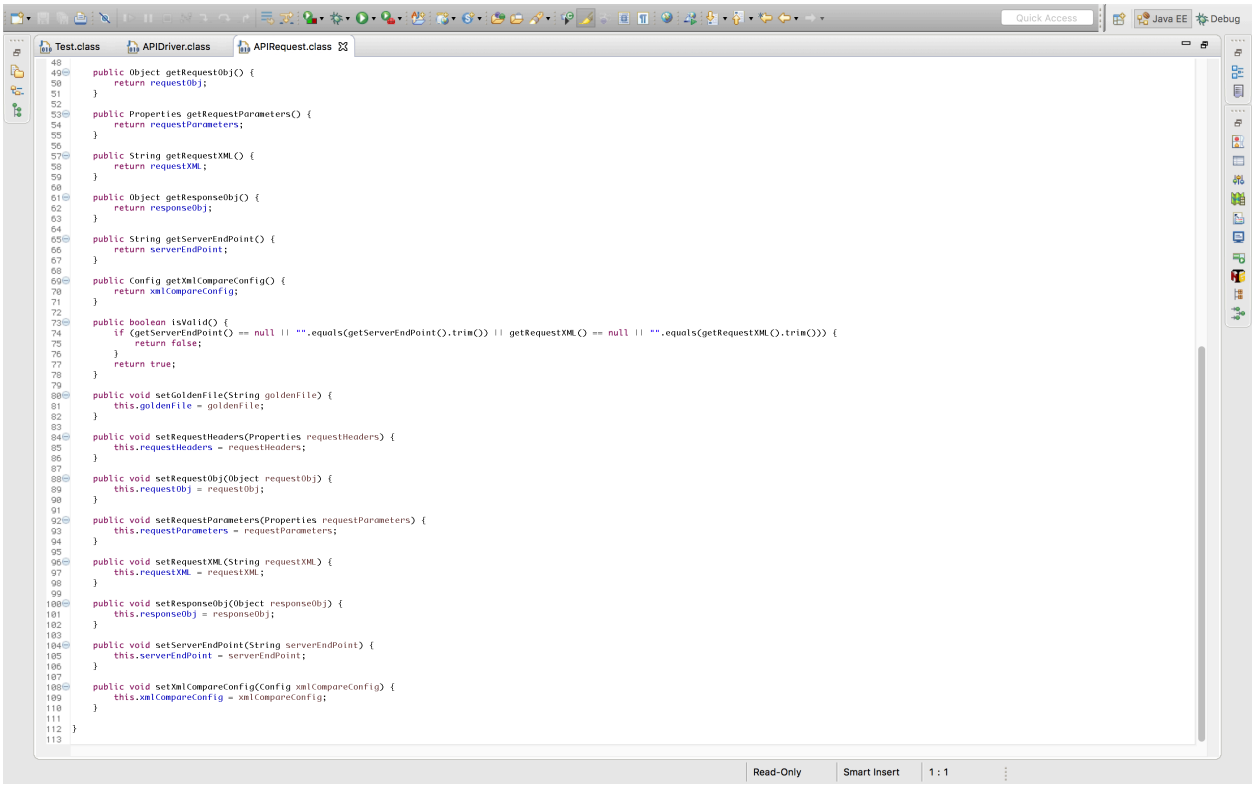
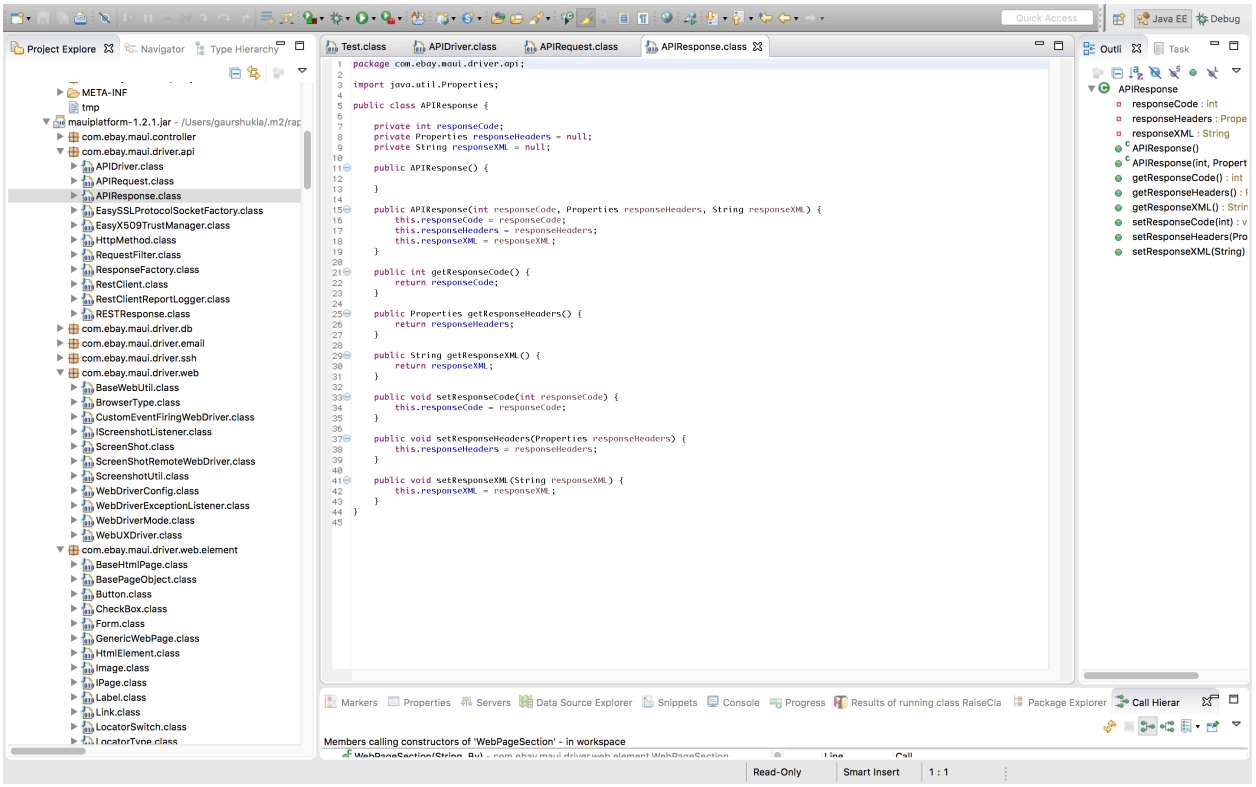


```
package com.ebay.maui.driver.api;

import java.util.Properties;

import com.ebay.qa.xmldog.Config;

public class APIRequest {
    private String serverEndPoint = "";
    private Properties requestParameters = null;
    private Properties requestHeaders = null;
    private String requestXML = null;
    private String goldenFile = null;
    private Config xmlCompareConfig = null;
    private Object requestObj = null;
    private Object responseObj = null;

    public APIRequest(String serverEndPoint, Properties parameters, Properties headers, Object requestObj) {
        this.serverEndPoint = serverEndPoint;
        this.requestParameters = parameters;
        this.requestHeaders = headers;
        this.requestObj = requestObj;

    }

    public APIRequest(String serverEndPoint, Properties parameters, Properties headers, String requestXML) {
        this.serverEndPoint = serverEndPoint;
        this.requestParameters = parameters;
        this.requestHeaders = headers;
        this.requestXML = requestXML.replace("\n", "").replace("\r", "").trim() + "\n";
    }

    public APIRequest(String serverEndPoint, Properties parameters, Properties headers, String requestXML, String goldenFile, Config xmlCompareConfig) {
        this.serverEndPoint = serverEndPoint;
        this.requestParameters = parameters;
        this.requestHeaders = headers;
        this.requestXML = requestXML.replace("\n", "").replace("\r", "").trim() + "\n";
        this.goldenFile = goldenFile;
        this.xmlCompareConfig = xmlCompareConfig;
    }

    public String getGoldenFile() {
        return goldenFile;
    }

    public Properties getRequestHeaders() {
        return requestHeaders;
    }

    public Object getRequestObj() {
        return requestObj;
    }

    public Properties getRequestParameters() {
        return requestParameters;
    }

    public String getRequestXML() {
        return requestXML;
    }

    public Object getResponseObj() {
        return responseObj;
    }

    public String getServerEndPoint() {
        return serverEndPoint;
```



```
    public Object getRequestObj() {
        return requestObj;
    }

    public Properties getRequestParameters() {
        return requestParameters;
    }

    public String getRequestXML() {
        return requestXML;
    }

    public Object getResponseObj() {
        return responseObj;
    }

    public String getServerEndPoint() {
        return serverEndPoint;
    }

    public Config getXmlCompareConfig() {
        return xmlCompareConfig;
    }

    public boolean isValid() {
        if (getServerEndPoint() == null || "".equals(getServerEndPoint().trim()) || getRequestXML() == null || "".equals(getRequestXML().trim())) {
            return false;
        }
        return true;
    }

    public void setGoldenFile(String goldenFile) {
        this.goldenFile = goldenFile;
    }

    public void setRequestHeaders(Properties requestHeaders) {
        this.requestHeaders = requestHeaders;
    }

    public void setRequestObj(Object requestObj) {
        this.requestObj = requestObj;
    }

    public void setRequestParameters(Properties requestParameters) {
        this.requestParameters = requestParameters;
    }

    public void setRequestXML(String requestXML) {
        this.requestXML = requestXML;
    }

    public void setResponseObj(Object responseObj) {
        this.responseObj = responseObj;
    }

    public void setServerEndPoint(String serverEndPoint) {
        this.serverEndPoint = serverEndPoint;
    }

    public void setXmlCompareConfig(Config xmlCompareConfig) {
        this.xmlCompareConfig = xmlCompareConfig;
    }
}
```


Project Explore
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HtmlElement.class
Image.class
IPage.class
Label.class
Link.class
LocatorSwitch.class
Test.class
APIDriver.class
APIRequest.class
APIResponse.class
package com.ebay.maui.driver.api;
import java.util.Properties;
public class APIResponse {
private int responseCode;
private Properties responseHeaders = null;
private String responseXML = null;
public APIResponse() {
}
public APIResponse(int responseCode, Properties responseHeaders, String responseXML) {
this.responseCode = responseCode;
this.responseHeaders = responseHeaders;
this.responseXML = responseXML;
}
public int getResponseCode() {
return responseCode;
}
public Properties getResponseHeaders() {
return responseHeaders;
}
public String getResponseXML() {
return responseXML;
}
public void setResponseCode(int responseCode) {
this.responseCode = responseCode;
}
public void setResponseHeaders(Properties responseHeaders) {
this.responseHeaders = responseHeaders;
}
public void setResponseXML(String responseXML) {
this.responseXML = responseXML;
}
}
Outl
Task
APIResponse
responseCode : int
responseHeaders : Prope
responseXML : String
APIResponse()
APIResponse(int, Propert
getResponseCode() : int
getResponseHeaders() : I
getResponseXML() : Strin
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Package Explorer
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Members calling constructors of 'WebPageSection' - in workspace
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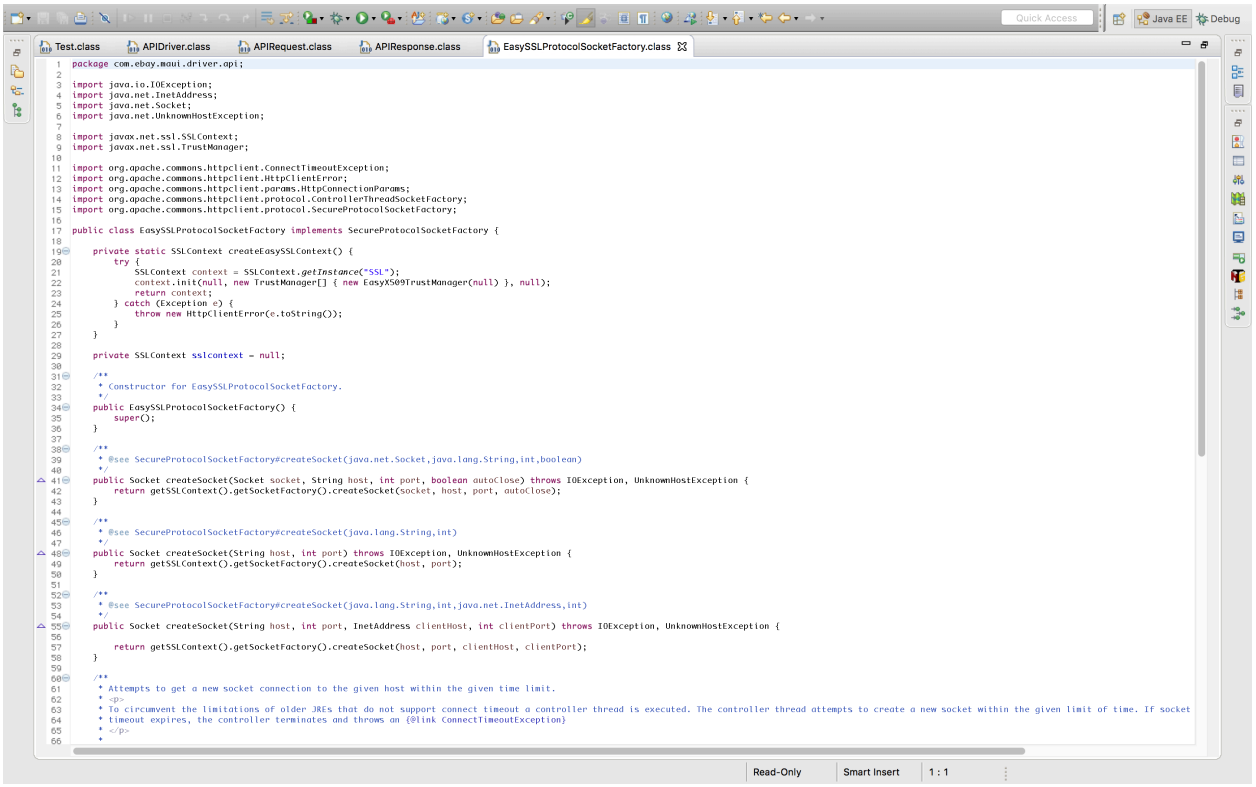
Test.class
APIDriver.class
APIRequest.class
APIResponse.class
EasySSLProtocolSocketFactory.class
package com.ebay.maui.driver.api;
import java.io.IOException;
import java.net.InetAddress;
import java.net.Socket;
import java.net.UnknownHostException;
import javax.net.ssl.SSLContext;
import javax.net.ssl.TrustManager;
import org.apache.commons.httpclient.ConnectTimeoutException;
import org.apache.commons.httpclient.HttpClientError;
import org.apache.commons.httpclient.params.HttpConnectionParams;
import org.apache.commons.httpclient.protocol.ControllerThreadSocketFactory;
import org.apache.commons.httpclient.protocol.SecureProtocolSocketFactory;
public class EasySSLProtocolSocketFactory implements SecureProtocolSocketFactory {
private static SSLContext createEasySSLContext() {
try {
SSLContext context = SSLContext.getInstance("SSL");
context.init(null, new TrustManager[] { new EasyX509TrustManager(null) }, null);
return context;
} catch (Exception e) {
throw new HttpClientError(e.toString());
}
}
private SSLContext sslcontext = null;
/**
* Constructor for EasySSLProtocolSocketFactory.
*/
public EasySSLProtocolSocketFactory() {
super();
}
/**
* @see SecureProtocolSocketFactory#createSocket(java.net.Socket,java.lang.String,int,boolean)
*/
public Socket createSocket(Socket socket, String host, int port, boolean autoClose) throws IOException, UnknownHostException {
return getSSLContext().getSocketFactory().createSocket(socket, host, port, autoClose);
}
/**
* @see SecureProtocolSocketFactory#createSocket(java.lang.String,int)
*/
public Socket createSocket(String host, int port) throws IOException, UnknownHostException {
return getSSLContext().getSocketFactory().createSocket(host, port);
}
/**
* @see SecureProtocolSocketFactory#createSocket(java.lang.String,int,java.net.InetAddress,int)
*/
public Socket createSocket(String host, int port, InetAddress clientHost, int clientPort) throws IOException, UnknownHostException {
return getSSLContext().getSocketFactory().createSocket(host, port, clientHost, clientPort);
}
/**
* Attempts to get a new socket connection to the given host within the given time limit.
*
* To circumvent the limitations of older JREs that do not support connect timeout a controller thread is executed. The controller thread attempts to create a new socket within the given limit of time. If socket
* timeout expires, the controller terminates and throws an {@link ConnectTimeoutException}
*
*
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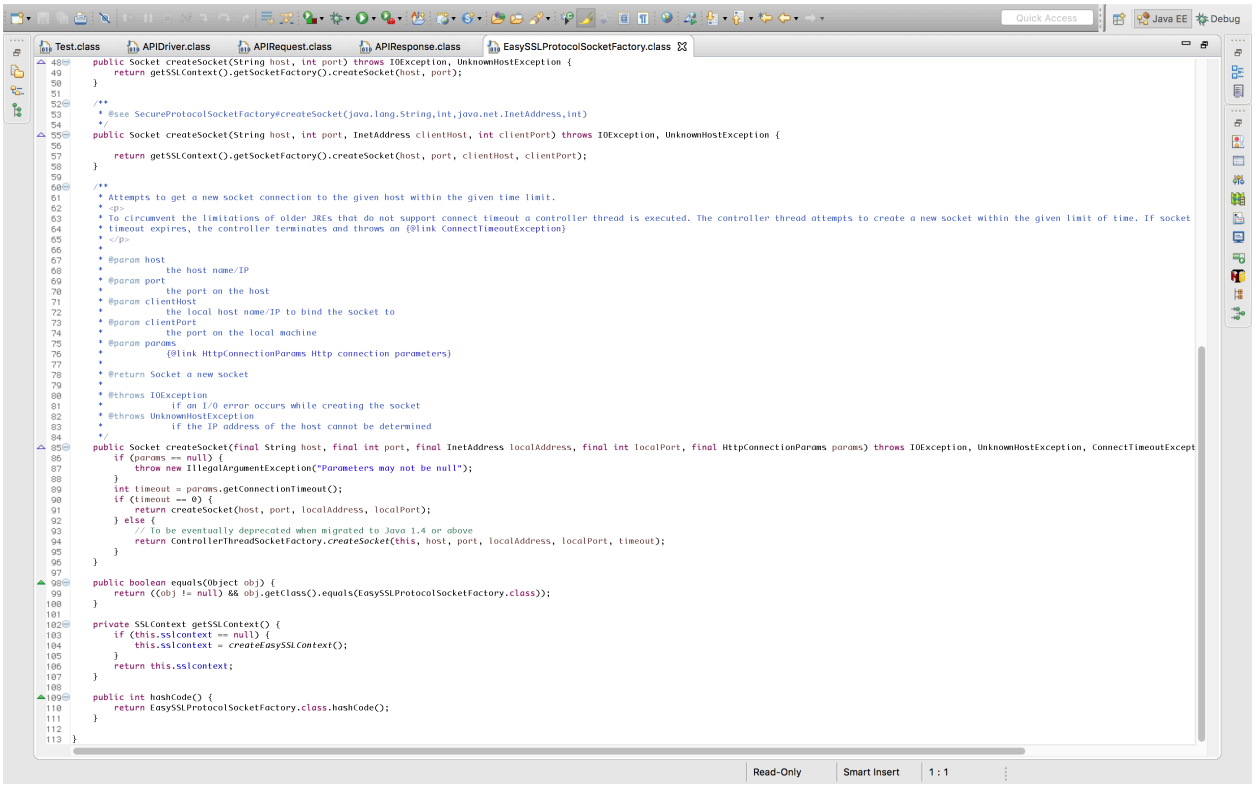
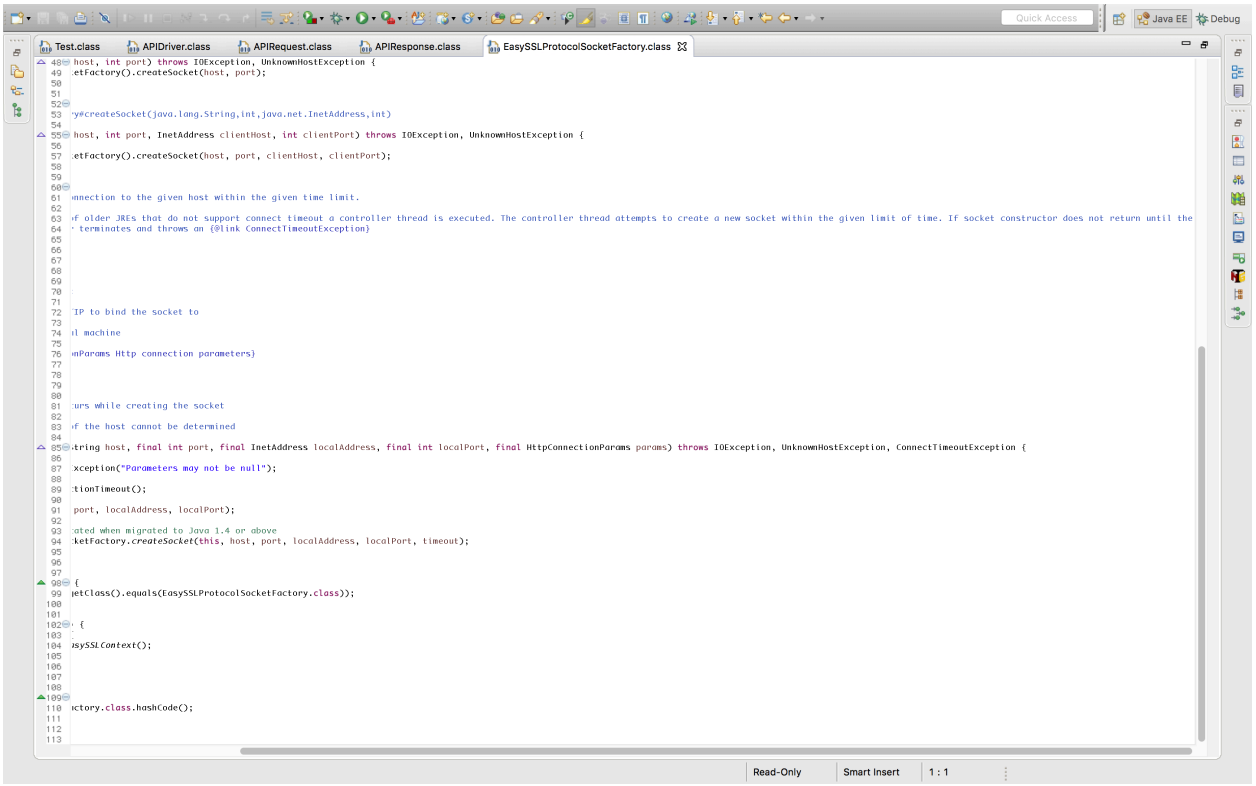
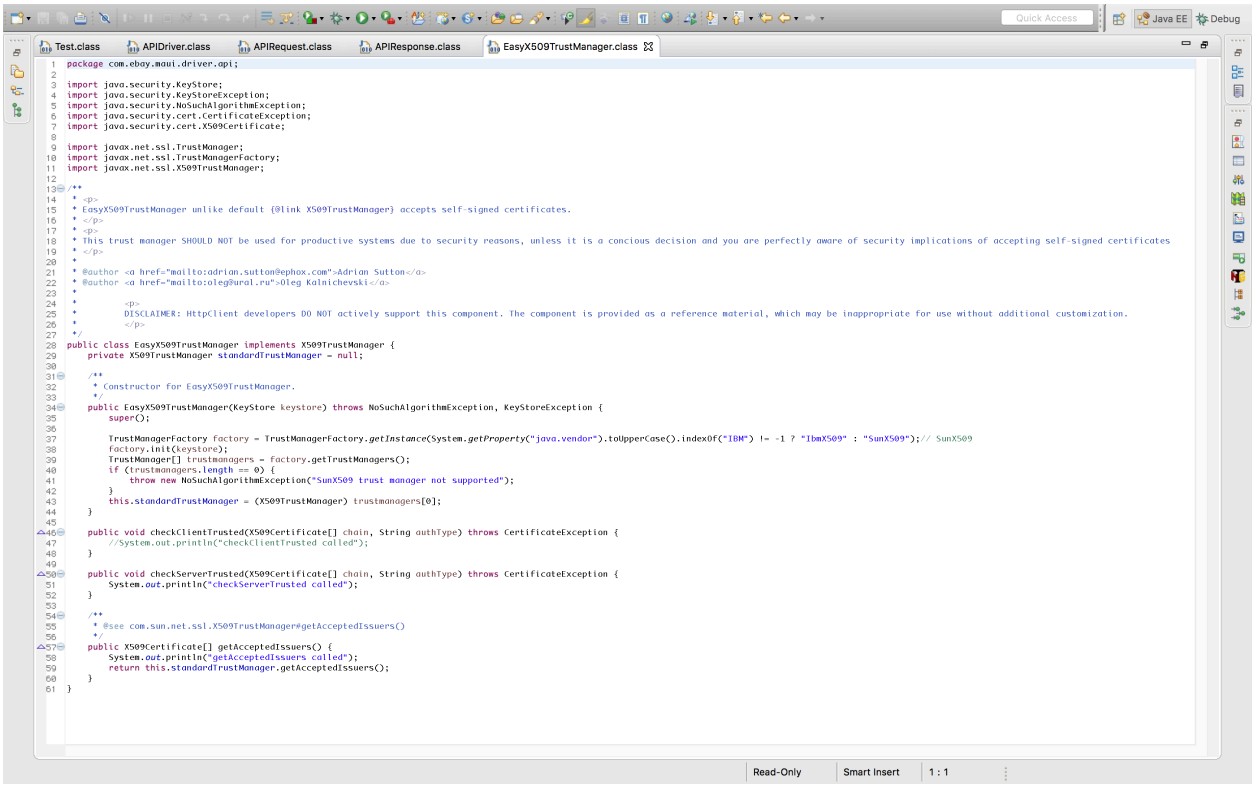
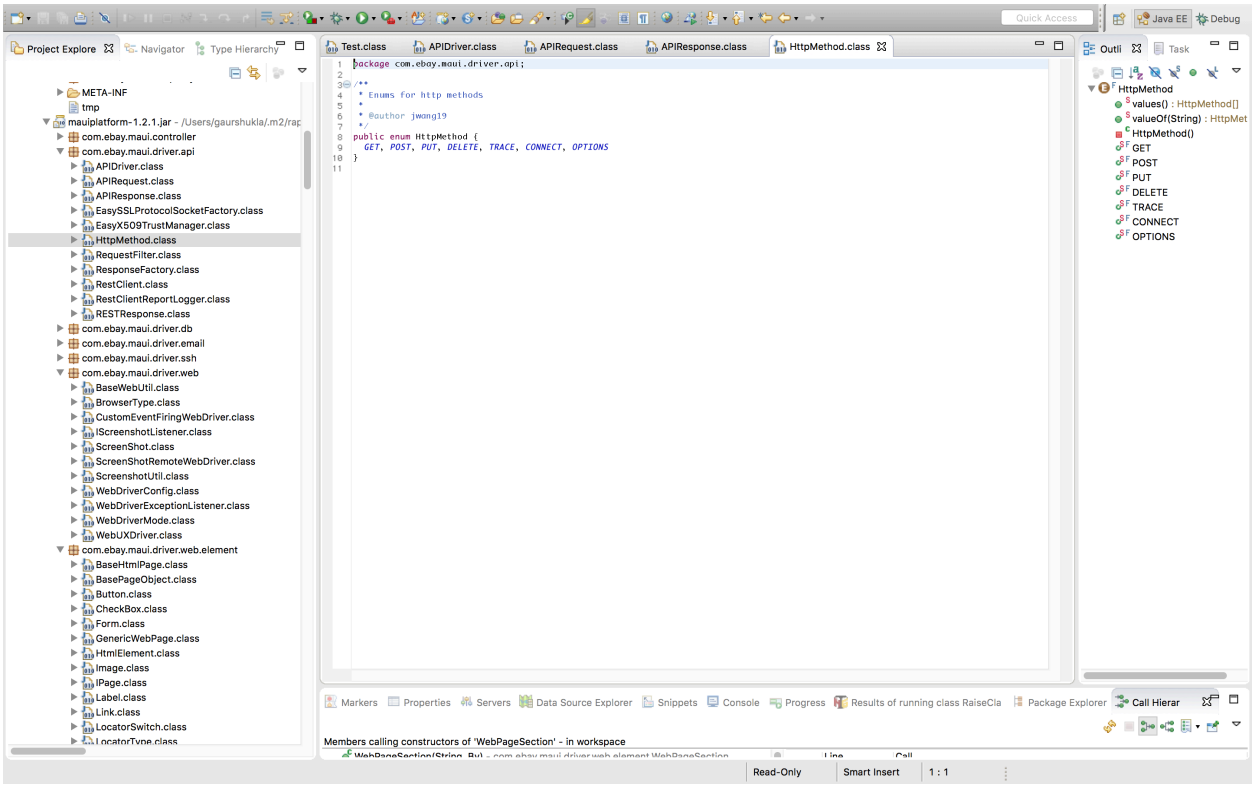



```
    public Socket createSocket(String host, int port) throws IOException, UnknownHostException {
        return getSSLContext().getSocketFactory().createSocket(host, port);
    }

    /**
     * @see SecureProtocolSocketFactory#createSocket(java.lang.String,int,java.net.InetAddress,int)
     */
    public Socket createSocket(String host, int port, InetAddress clientHost, int clientPort) throws IOException, UnknownHostException {

        return getSSLContext().getSocketFactory().createSocket(host, port, clientHost, clientPort);
    }

    /**
     * Attempts to get a new socket connection to the given host within the given time limit.
     * <p>
     * To circumvent the limitations of older JREs that do not support connect timeout a controller thread is executed. The controller thread attempts to create a new socket within the given limit of time. If socket
     * timeout expires, the controller terminates and throws an {@link ConnectTimeoutException}
     * </p>
     *
     * @param host
     *            the host name/IP
     * @param port
     *            the port on the host
     * @param clientHost
     *            the local host name/IP to bind the socket to
     * @param clientPort
     *            the port on the local machine
     * @param params
     *            {@link HttpConnectionParams Http connection parameters}
     *
     * @return Socket a new socket
     *
     * @throws IOException
     *             if an I/O error occurs while creating the socket
     * @throws UnknownHostException
     *             if the IP address of the host cannot be determined
     */
    public Socket createSocket(final String host, final int port, final InetAddress localAddress, final int localPort, final HttpConnectionParams params) throws IOException, UnknownHostException, ConnectTimeoutExcept
        if (params == null) {
            throw new IllegalArgumentException("Parameters may not be null");
        }
        int timeout = params.getConnectionTimeout();
        if (timeout == 0) {
            return createSocket(host, port, localAddress, localPort);
        } else {
            // To be eventually deprecated when migrated to Java 1.4 or above
            return ControllerThreadSocketFactory.createSocket(this, host, port, localAddress, localPort, timeout);
        }
    }

    public boolean equals(Object obj) {
        return ((obj != null) && obj.getClass().equals(EasySSLProtocolSocketFactory.class));
    }

    private SSLContext getSSLContext() {
        if (this.sslcontext == null) {
            this.sslcontext = createEasySSLContext();
        }
        return this.sslcontext;
    }

    public int hashCode() {
        return EasySSLProtocolSocketFactory.class.hashCode();
    }
}
```

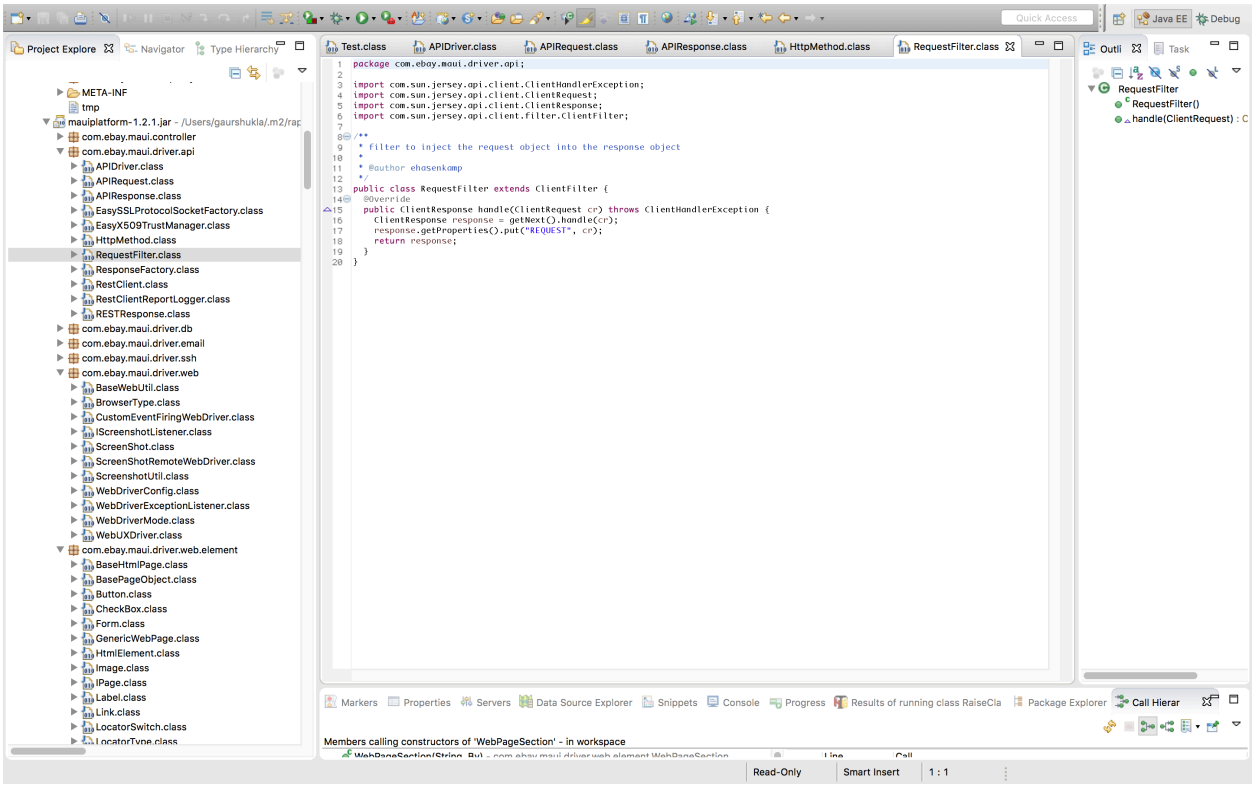





```java
package com.ebay.maui.driver.api;

import java.security.KeyStore;
import java.security.KeyStoreException;
import java.security.NoSuchAlgorithmException;
import java.security.cert.CertificateException;
import java.security.cert.X509Certificate;

import javax.net.ssl.TrustManager;
import javax.net.ssl.TrustManagerFactory;
import javax.net.ssl.X509TrustManager;

/**
 * <p>
 * EasyX509TrustManager unlike default {@link X509TrustManager} accepts self-signed certificates.
 * </p>
 * <p>
 * This trust manager SHOULD NOT be used for productive systems due to security reasons, unless it is a concious decision and you are perfectly aware of security implications of accepting self-signed certificates
 * </p>
 *
 * @author <a href="mailto:adrian.sutton@ephox.com">Adrian Sutton</a>
 * @author <a href="mailto:oleg@ural.ru">Oleg Kalnichevski</a>
 *
 *         <p>
 *         DISCLAIMER: HttpClient developers DO NOT actively support this component. The component is provided as a reference material, which may be inappropriate for use without additional customization.
 *         </p>
 */
public class EasyX509TrustManager implements X509TrustManager {
    private X509TrustManager standardTrustManager = null;

    /**
     * Constructor for EasyX509TrustManager.
     */
    public EasyX509TrustManager(KeyStore keystore) throws NoSuchAlgorithmException, KeyStoreException {
        super();

        TrustManagerFactory factory = TrustManagerFactory.getInstance(System.getProperty("java.vendor").toUpperCase().indexOf("IBM") != -1 ? "IbmX509" : "SunX509");// SunX509
        factory.init(keystore);
        TrustManager[] trustmanagers = factory.getTrustManagers();
        if (trustmanagers.length == 0) {
            throw new NoSuchAlgorithmException("SunX509 trust manager not supported");
        }
        this.standardTrustManager = (X509TrustManager) trustmanagers[0];
    }

    public void checkClientTrusted(X509Certificate[] chain, String authType) throws CertificateException {
        //System.out.println("checkClientTrusted called");
    }

    public void checkServerTrusted(X509Certificate[] chain, String authType) throws CertificateException {
        System.out.println("checkServerTrusted called");
    }

    /**
     * @see com.sun.net.ssl.X509TrustManager#getAcceptedIssuers()
     */
    public X509Certificate[] getAcceptedIssuers() {
        System.out.println("getAcceptedIssuers called");
        return this.standardTrustManager.getAcceptedIssuers();
    }
}
```




```java
package com.ebay.maui.driver.api;

/**
 * Enums for http methods
 *
 * @author jwang19
 */
public enum HttpMethod {
  GET, POST, PUT, DELETE, TRACE, CONNECT, OPTIONS
}
```


Project Explore
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Test.class
APIDriver.class
APIRequest.class
APIResponse.class
HttpMethod.class
RequestFilter.class
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APIResponse.class
EasySSLProtocolSocketFactory.class
EasyX509TrustManager.class
HttpMethod.class
RequestFilter.class
ResponseFactory.class
RestClient.class
RestClientReportLogger.class
RESTResponse.class
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com.ebay.maui.driver.web
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BrowserType.class
CustomEventFiringWebDriver.class
IScreenshotListener.class
ScreenShot.class
ScreenShotRemoteWebDriver.class
ScreenshotUtil.class
WebDriverConfig.class
WebDriverExceptionListener.class
WebDriverMode.class
WebUXDriver.class
com.ebay.maui.driver.web.element
BaseHtmlPage.class
BasePageObject.class
Button.class
CheckBox.class
Form.class
GenericWebPage.class
HtmlElement.class
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IPage.class
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Data Source Explorer
Snippets
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Members calling constructors of 'WebPageSection' - in workspace
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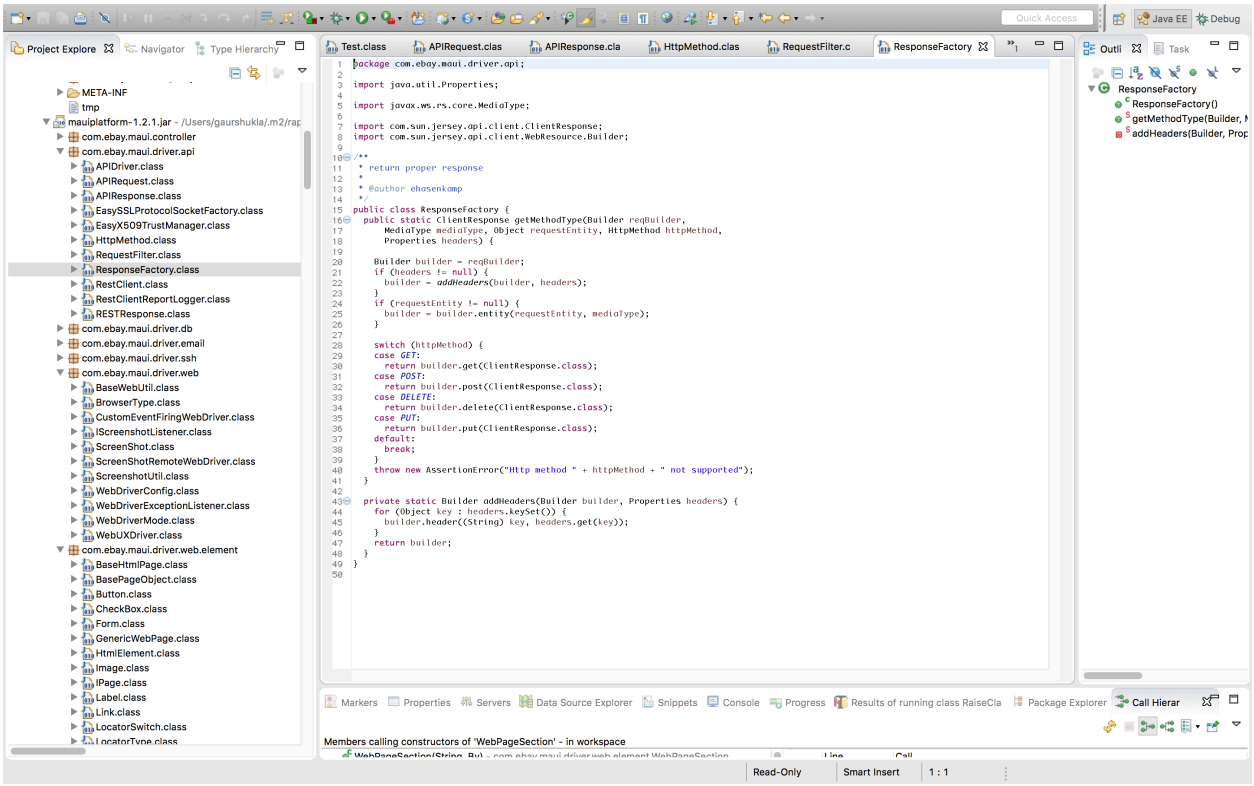
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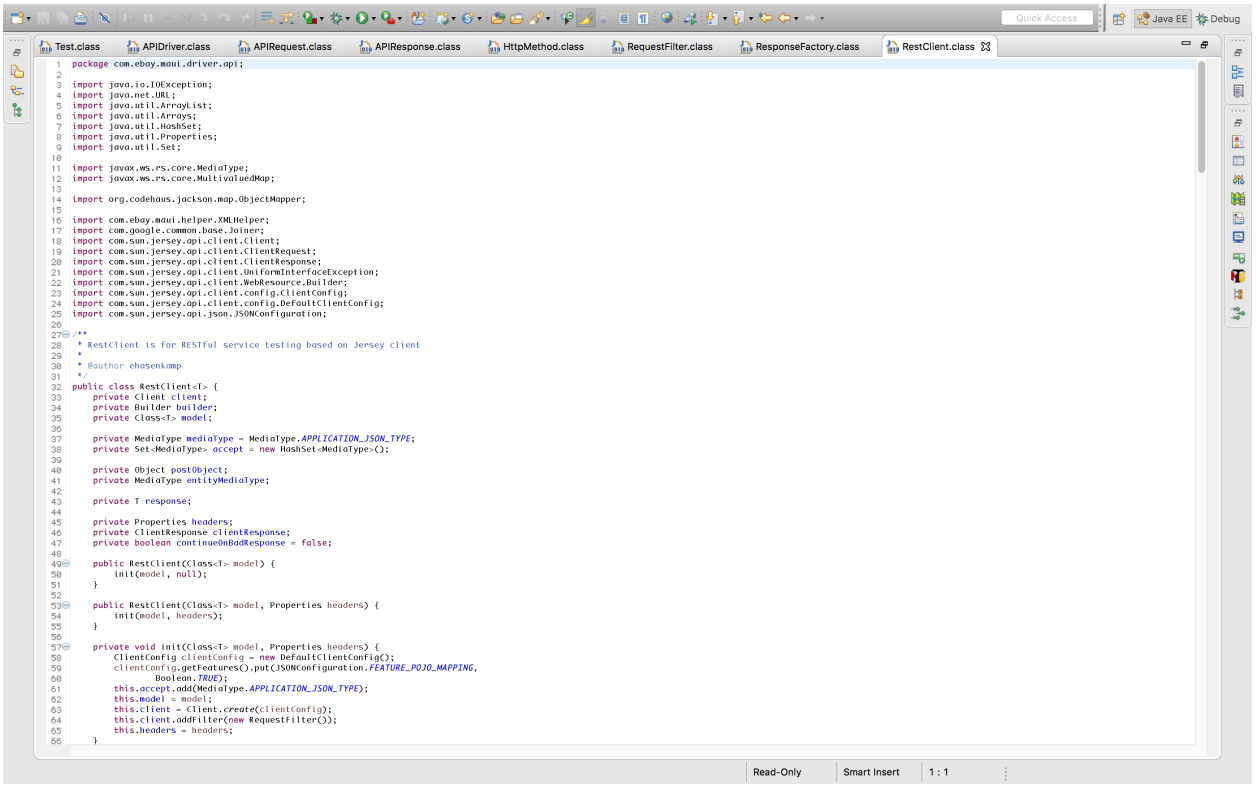
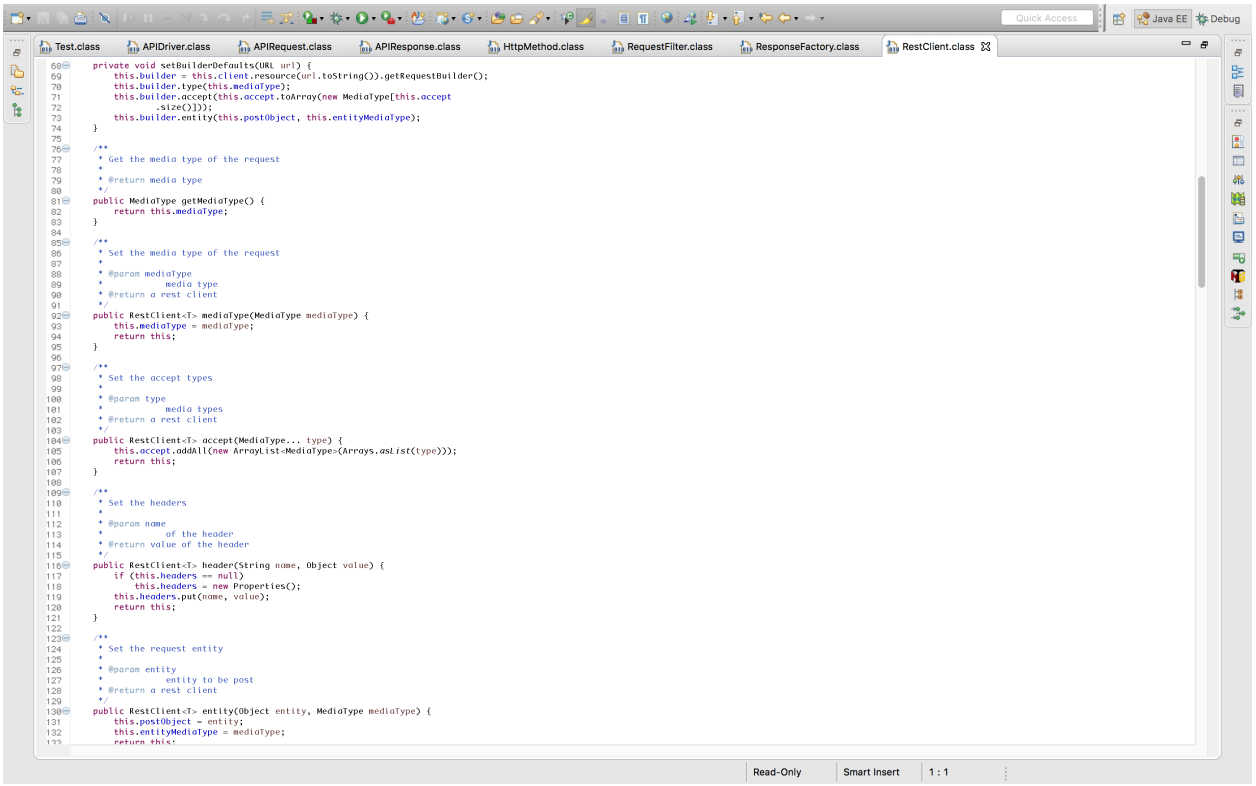
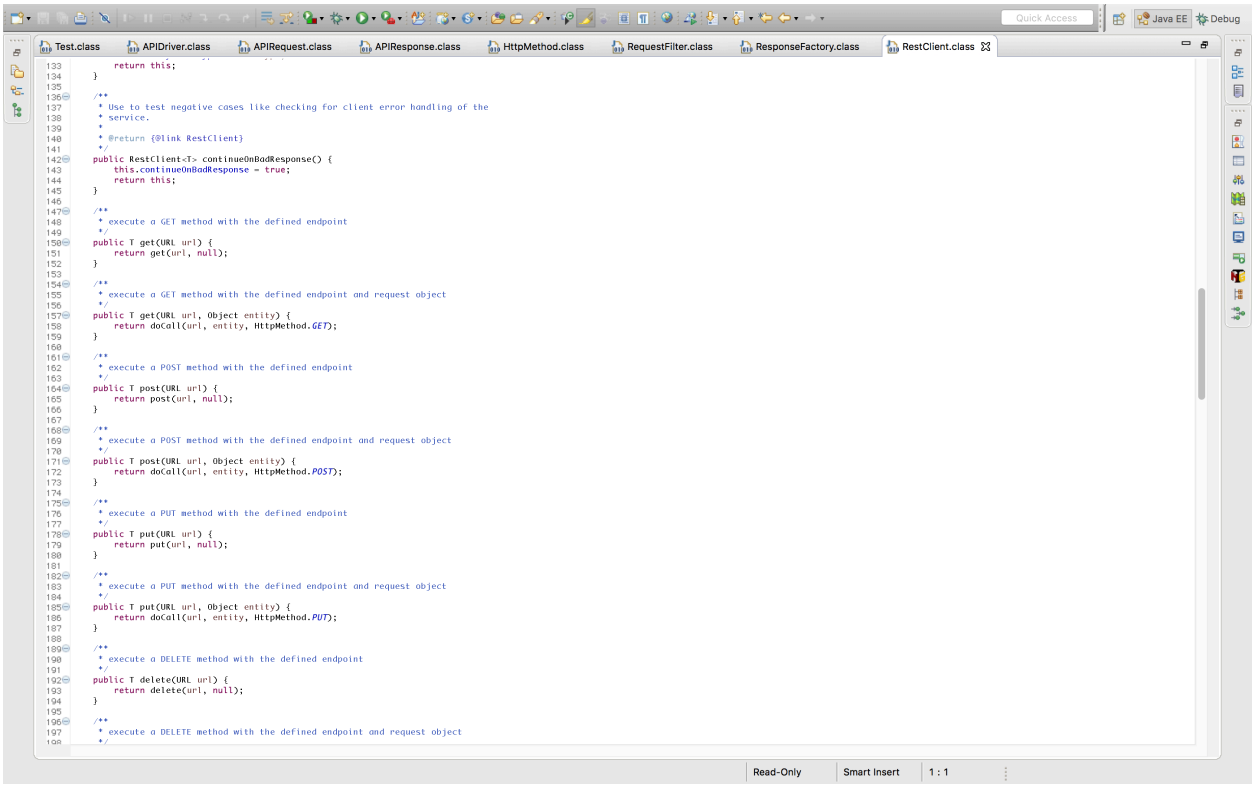


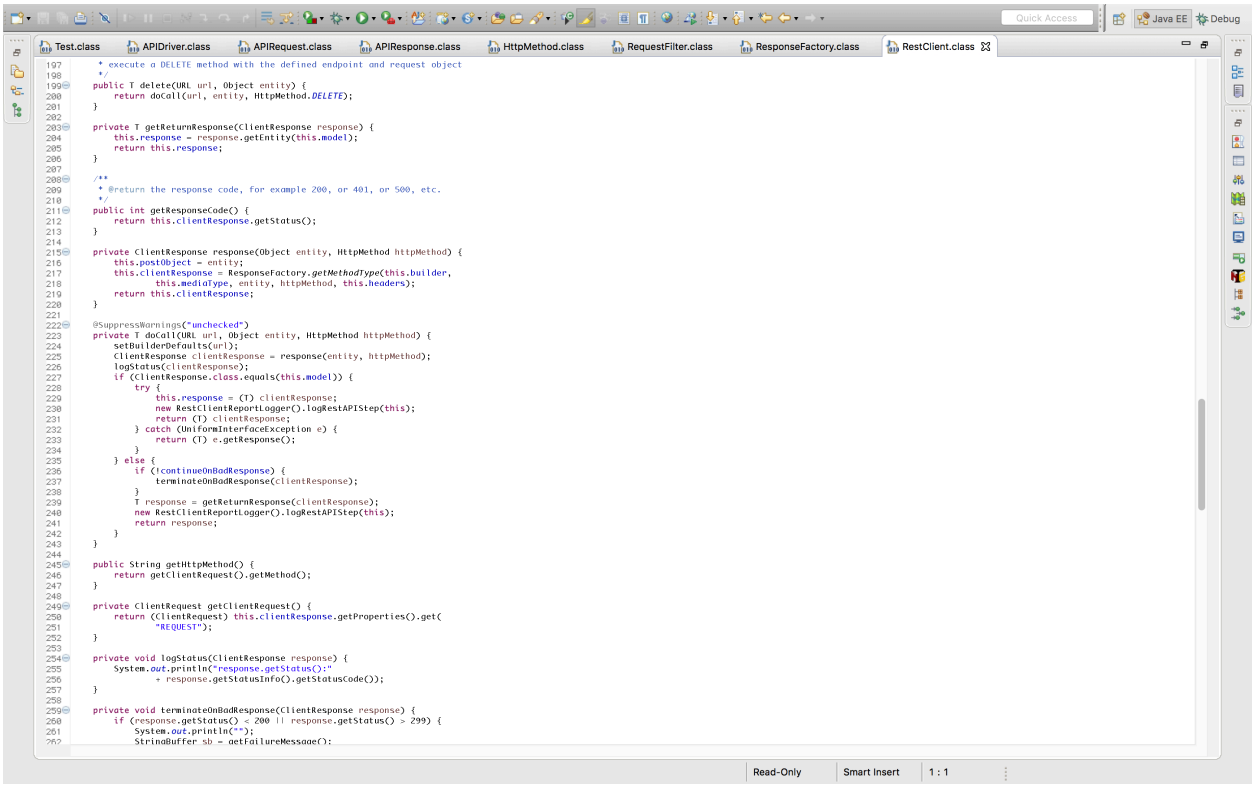

```java
package com.ebay.maui.driver.api;

import java.io.IOException;
import java.net.URL;
import java.util.ArrayList;
import java.util.Arrays;
import java.util.HashSet;
import java.util.Properties;
import java.util.Set;

import javax.ws.rs.core.MediaType;
import javax.ws.rs.core.MultivaluedMap;

import org.codehaus.jackson.map.ObjectMapper;

import com.ebay.maui.helper.XMLHelper;
import com.google.common.base.Joiner;
import com.sun.jersey.api.client.Client;
import com.sun.jersey.api.client.ClientRequest;
import com.sun.jersey.api.client.ClientResponse;
import com.sun.jersey.api.client.UniformInterfaceException;
import com.sun.jersey.api.client.WebResource.Builder;
import com.sun.jersey.api.client.config.ClientConfig;
import com.sun.jersey.api.client.config.DefaultClientConfig;
import com.sun.jersey.api.json.JSONConfiguration;

/**
 * RestClient is for RESTful service testing based on Jersey client
 *
 * @author ehasenkamp
 */
public class RestClient<T> {
    private Client client;
    private Builder builder;
    private Class<T> model;

    private MediaType mediaType = MediaType.APPLICATION_JSON_TYPE;
    private Set<MediaType> accept = new HashSet<MediaType>();

    private Object postObject;
    private MediaType entityMediaType;

    private T response;

    private Properties headers;
    private ClientResponse clientResponse;
    private boolean continueOnBadResponse = false;

    public RestClient(Class<T> model) {
        init(model, null);
    }

    public RestClient(Class<T> model, Properties headers) {
        init(model, headers);
    }

    private void init(Class<T> model, Properties headers) {
        ClientConfig clientConfig = new DefaultClientConfig();
        clientConfig.getFeatures().put(JSONConfiguration.FEATURE_POJO_MAPPING,
                Boolean.TRUE);
        this.accept.add(MediaType.APPLICATION_JSON_TYPE);
        this.model = model;
        this.client = Client.create(clientConfig);
        this.client.addFilter(new RequestFilter());
        this.headers = headers;
    }
```



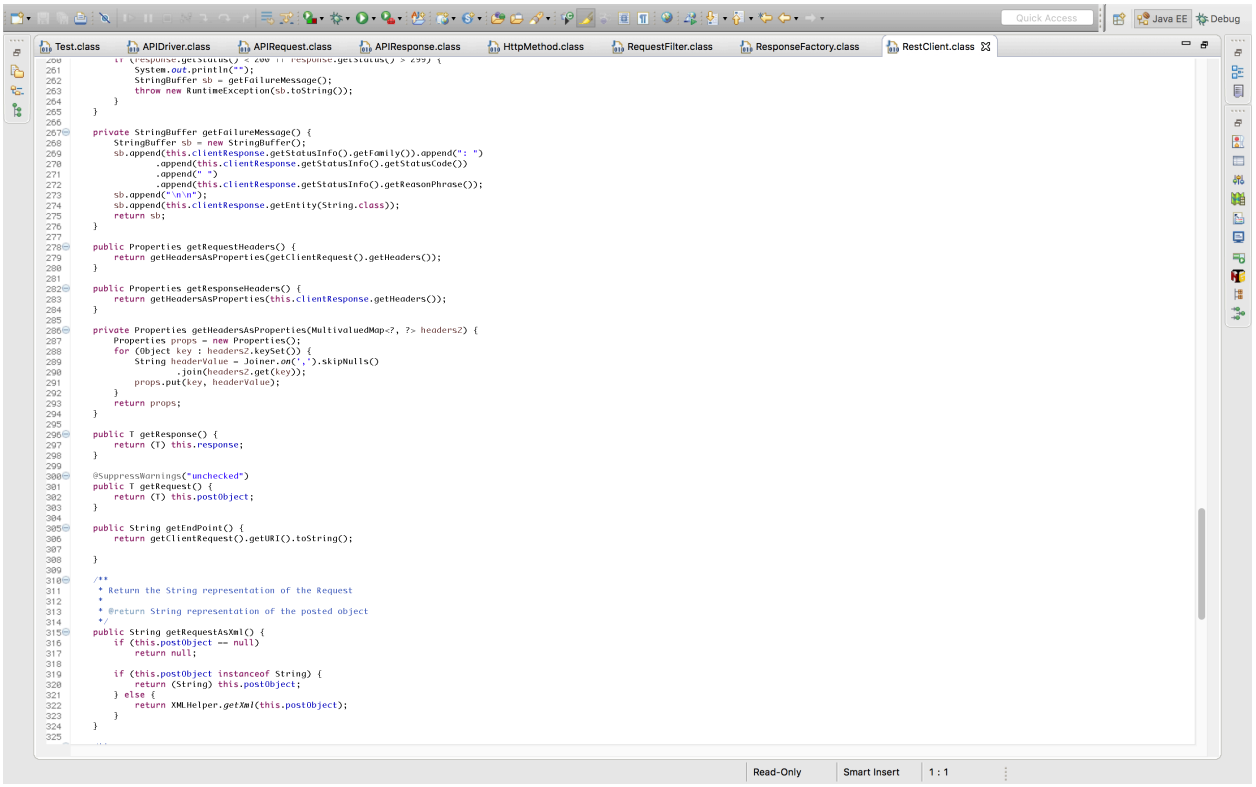

```java
    private void setBuilderDefaults(URL url) {
        this.builder = this.client.resource(url.toString()).getRequestBuilder();
        this.builder.type(this.mediaType);
        this.builder.accept(this.accept.toArray(new MediaType[this.accept
                .size()]));
        this.builder.entity(this.postObject, this.entityMediaType);
    }

    /**
     * Get the media type of the request
     *
     * @return media type
     */
    public MediaType getMediaType() {
        return this.mediaType;
    }

    /**
     * Set the media type of the request
     *
     * @param mediaType
     *            media type
     * @return a rest client
     */
    public RestClient<T> mediaType(MediaType mediaType) {
        this.mediaType = mediaType;
        return this;
    }

    /**
     * Set the accept types
     *
     * @param type
     *            media types
     * @return a rest client
     */
    public RestClient<T> accept(MediaType... type) {
        this.accept.addAll(new ArrayList<MediaType>(Arrays.asList(type)));
        return this;
    }

    /**
     * Set the headers
     *
     * @param name
     *            of the header
     * @return value of the header
     */
    public RestClient<T> header(String name, Object value) {
        if (this.headers == null)
            this.headers = new Properties();
        this.headers.put(name, value);
        return this;
    }

    /**
     * Set the request entity
     *
     * @param entity
     *            entity to be post
     * @return a rest client
     */
    public RestClient<T> entity(Object entity, MediaType mediaType) {
        this.postObject = entity;
        this.entityMediaType = mediaType;
        return this;
```



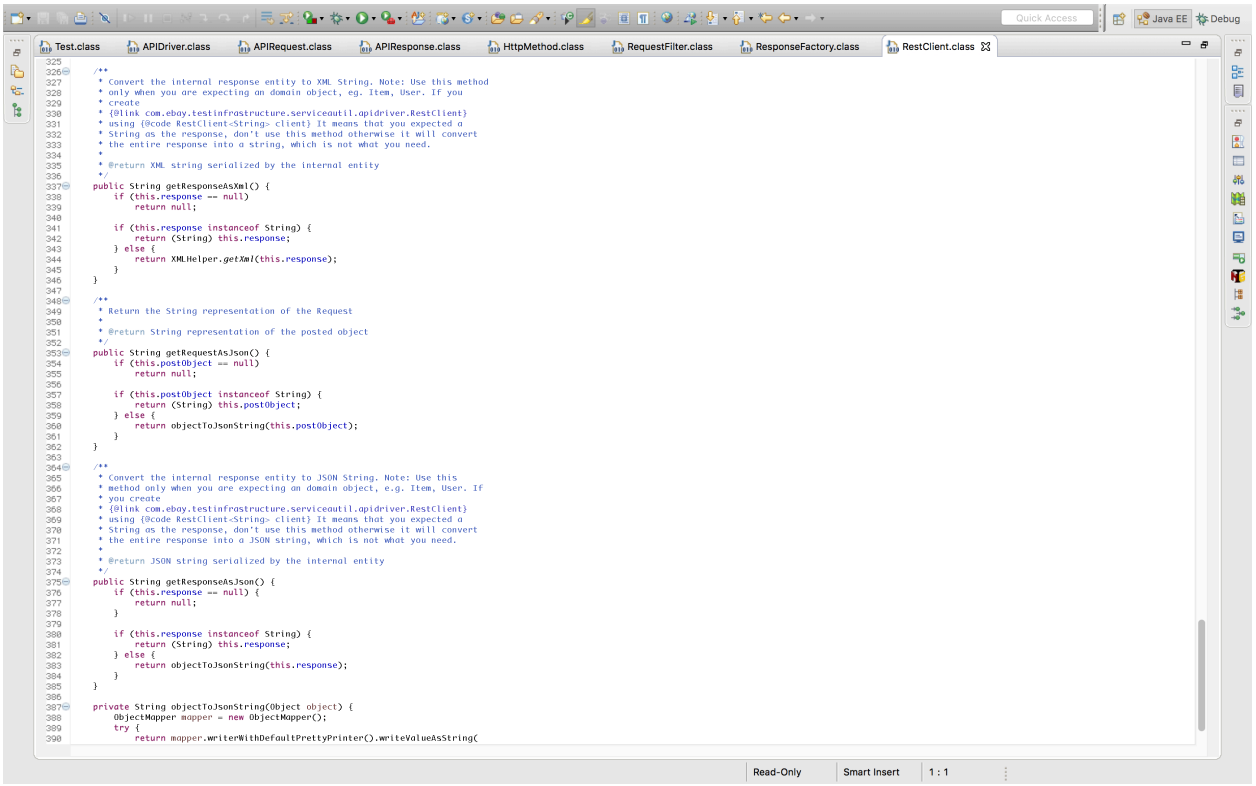

```
        return this;
    }

    /**
     * Use to test negative cases like checking for client error handling of the
     * service.
     *
     * @return {@link RestClient}
     */
    public RestClient<T> continueOnBadResponse() {
        this.continueOnBadResponse = true;
        return this;
    }

    /**
     * execute a GET method with the defined endpoint
     */
    public T get(URL url) {
        return get(url, null);
    }

    /**
     * execute a GET method with the defined endpoint and request object
     */
    public T get(URL url, Object entity) {
        return doCall(url, entity, HttpMethod.GET);
    }

    /**
     * execute a POST method with the defined endpoint
     */
    public T post(URL url) {
        return post(url, null);
    }

    /**
     * execute a POST method with the defined endpoint and request object
     */
    public T post(URL url, Object entity) {
        return doCall(url, entity, HttpMethod.POST);
    }

    /**
     * execute a PUT method with the defined endpoint
     */
    public T put(URL url) {
        return put(url, null);
    }

    /**
     * execute a PUT method with the defined endpoint and request object
     */
    public T put(URL url, Object entity) {
        return doCall(url, entity, HttpMethod.PUT);
    }

    /**
     * execute a DELETE method with the defined endpoint
     */
    public T delete(URL url) {
        return delete(url, null);
    }

    /**
     * execute a DELETE method with the defined endpoint and request object
     */
```




```
     * execute a DELETE method with the defined endpoint and request object
     */
    public T delete(URL url, Object entity) {
        return doCall(url, entity, HttpMethod.DELETE);
    }

    private T getReturnResponse(ClientResponse response) {
        this.response = response.getEntity(this.model);
        return this.response;
    }

    /**
     * @return the response code, for example 200, or 401, or 500, etc.
     */
    public int getResponseCode() {
        return this.clientResponse.getStatus();
    }

    private ClientResponse response(Object entity, HttpMethod httpMethod) {
        this.postObject = entity;
        this.clientResponse = ResponseFactory.getMethodType(this.builder,
                this.mediaType, entity, httpMethod, this.headers);
        return this.clientResponse;
    }

    @SuppressWarnings("unchecked")
    private T doCall(URL url, Object entity, HttpMethod httpMethod) {
        setBuilderDefaults(url);
        ClientResponse clientResponse = response(entity, httpMethod);
        logStatus(clientResponse);
        if (ClientResponse.class.equals(this.model)) {
            try {
                this.response = (T) clientResponse;
                new RestClientReportLogger().logRestAPIStep(this);
                return (T) clientResponse;
            } catch (UniformInterfaceException e) {
                return (T) e.getResponse();
            }
        } else {
            if (!continueOnBadResponse) {
                terminateOnBadResponse(clientResponse);
            }
            T response = getReturnResponse(clientResponse);
            new RestClientReportLogger().logRestAPIStep(this);
            return response;
        }
    }

    public String getHttpMethod() {
        return getClientRequest().getMethod();
    }

    private ClientRequest getClientRequest() {
        return (ClientRequest) this.clientResponse.getProperties().get(
                "REQUEST");
    }

    private void logStatus(ClientResponse response) {
        System.out.println("response.getStatus():"
                + response.getStatusInfo().getStatusCode());
    }

    private void terminateOnBadResponse(ClientResponse response) {
        if (response.getStatus() < 200 || response.getStatus() > 299) {
            System.out.println("");
            StringBuffer sb = getFailureMessage();
```

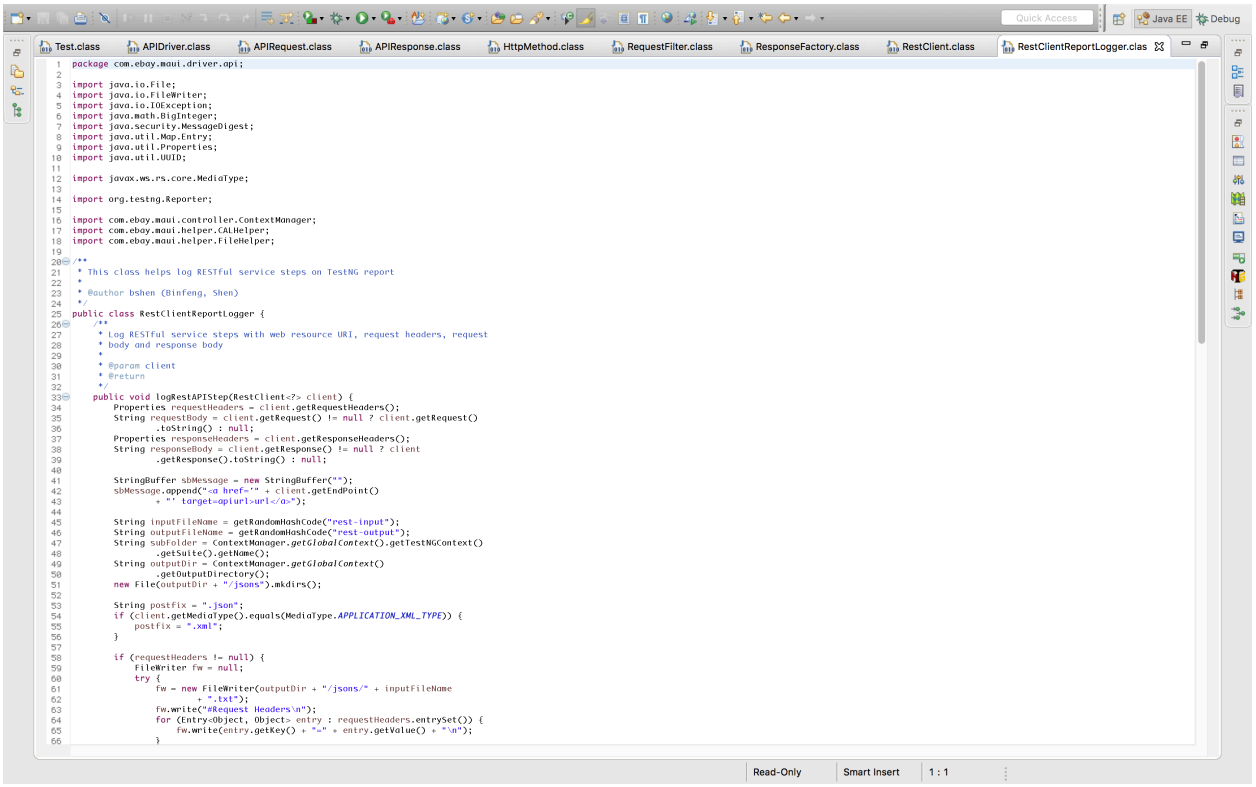


```
        if (this.response.getStatus() < 200 || this.response.getStatus() > 299) {
            System.out.println("");
            StringBuffer sb = getFailureMessage();
            throw new RuntimeException(sb.toString());
        }
    }

    private StringBuffer getFailureMessage() {
        StringBuffer sb = new StringBuffer();
        sb.append(this.clientResponse.getStatusInfo().getFamily()).append(": ")
                .append(this.clientResponse.getStatusInfo().getStatusCode())
                .append(" ")
                .append(this.clientResponse.getStatusInfo().getReasonPhrase());
        sb.append("\n\n");
        sb.append(this.clientResponse.getEntity(String.class));
        return sb;
    }

    public Properties getRequestHeaders() {
        return getHeadersAsProperties(getClientRequest().getHeaders());
    }

    public Properties getResponseHeaders() {
        return getHeadersAsProperties(this.clientResponse.getHeaders());
    }

    private Properties getHeadersAsProperties(MultivaluedMap<?, ?> headers2) {
        Properties props = new Properties();
        for (Object key : headers2.keySet()) {
            String headerValue = Joiner.on(',').skipNulls()
                    .join(headers2.get(key));
            props.put(key, headerValue);
        }
        return props;
    }

    public T getResponse() {
        return (T) this.response;
    }

    @SuppressWarnings("unchecked")
    public T getRequest() {
        return (T) this.postObject;
    }

    public String getEndPoint() {
        return getClientRequest().getURI().toString();

    }

    /**
     * Return the String representation of the Request
     *
     * @return String representation of the posted object
     */
    public String getRequestAsXml() {
        if (this.postObject == null)
            return null;

        if (this.postObject instanceof String) {
            return (String) this.postObject;
        } else {
            return XMLHelper.getXml(this.postObject);
        }
    }
```

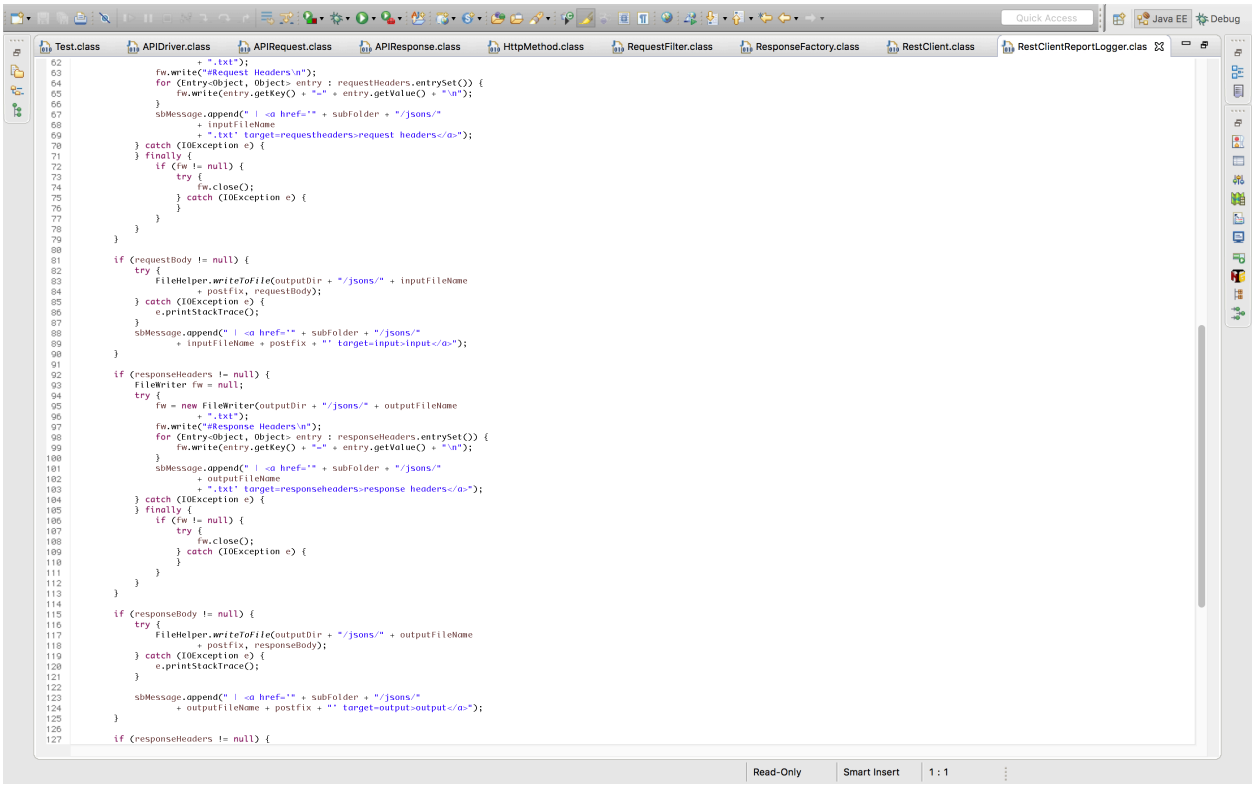


```
    /**
     * Convert the internal response entity to XML String. Note: Use this method
     * only when you are expecting an domain object, eg. Item, User. If you
     * create
     * {@link com.ebay.testinfrastructure.serviceautil.apidriver.RestClient}
     * using {@code RestClient<String> client} It means that you expected a
     * String as the response, don't use this method otherwise it will convert
     * the entire response into a string, which is not what you need.
     *
     * @return XML string serialized by the internal entity
     */
    public String getResponseAsXml() {
        if (this.response == null)
            return null;

        if (this.response instanceof String) {
            return (String) this.response;
        } else {
            return XMLHelper.getXml(this.response);
        }
    }

    /**
     * Return the String representation of the Request
     *
     * @return String representation of the posted object
     */
    public String getRequestAsJson() {
        if (this.postObject == null)
            return null;

        if (this.postObject instanceof String) {
            return (String) this.postObject;
        } else {
            return objectToJsonString(this.postObject);
        }
    }

    /**
     * Convert the internal response entity to JSON String. Note: Use this
     * method only when you are expecting an domain object, e.g. Item, User. If
     * you create
     * {@link com.ebay.testinfrastructure.serviceautil.apidriver.RestClient}
     * using {@code RestClient<String> client} It means that you expected a
     * String as the response, don't use this method otherwise it will convert
     * the entire response into a JSON string, which is not what you need.
     *
     * @return JSON string serialized by the internal entity
     */
    public String getResponseAsJson() {
        if (this.response == null) {
            return null;
        }

        if (this.response instanceof String) {
            return (String) this.response;
        } else {
            return objectToJsonString(this.response);
        }
    }

    private String objectToJsonString(Object object) {
        ObjectMapper mapper = new ObjectMapper();
        try {
            return mapper.writerWithDefaultPrettyPrinter().writeValueAsString(
```


```
     * using {@code RestClient<String> client} It means that you expected a
     * String as the response, don't use this method otherwise it will convert
     * the entire response into a string, which is not what you need.
     *
     * @return XML string serialized by the internal entity
     */
    public String getResponseAsXml() {
        if (this.response == null)
            return null;

        if (this.response instanceof String) {
            return (String) this.response;
        } else {
            return XMLHelper.getXml(this.response);
        }
    }

    /**
     * Return the String representation of the Request
     *
     * @return String representation of the posted object
     */
    public String getRequestAsJson() {
        if (this.postObject == null)
            return null;

        if (this.postObject instanceof String) {
            return (String) this.postObject;
        } else {
            return objectToJsonString(this.postObject);
        }
    }

    /**
     * Convert the internal response entity to JSON String. Note: Use this
     * method only when you are expecting an domain object, e.g. Item, User. If
     * you create
     * {@link com.ebay.testinfrastructure.serviceautil.apidriver.RestClient}
     * using {@code RestClient<String> client} It means that you expected a
     * String as the response, don't use this method otherwise it will convert
     * the entire response into a JSON string, which is not what you need.
     *
     * @return JSON string serialized by the internal entity
     */
    public String getResponseAsJson() {
        if (this.response == null) {
            return null;
        }

        if (this.response instanceof String) {
            return (String) this.response;
        } else {
            return objectToJsonString(this.response);
        }
    }

    private String objectToJsonString(Object object) {
        ObjectMapper mapper = new ObjectMapper();
        try {
            return mapper.writerWithDefaultPrettyPrinter().writeValueAsString(
                    object);
        } catch (IOException e) {
            throw new RuntimeException("Cannot convert object to JSON", e);
        }
    }
}
```

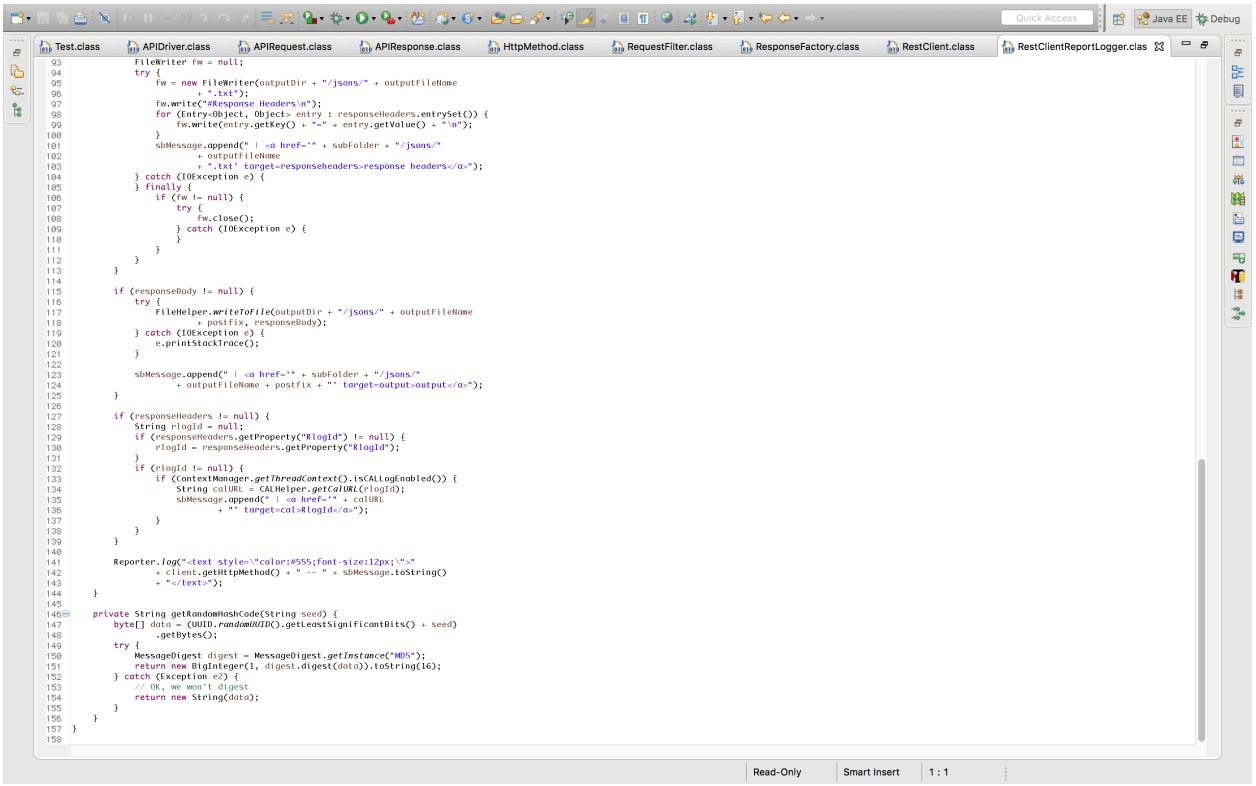



```
package com.ebay.maui.driver.api;

import java.io.File;
import java.io.FileWriter;
import java.io.IOException;
import java.math.BigInteger;
import java.security.MessageDigest;
import java.util.Map.Entry;
import java.util.Properties;
import java.util.UUID;

import javax.ws.rs.core.MediaType;

import org.testng.Reporter;

import com.ebay.maui.controller.ContextManager;
import com.ebay.maui.helper.CALHelper;
import com.ebay.maui.helper.FileHelper;

/**
 * This class helps log RESTful service steps on TestNG report
 *
 * @author bshen (Binfeng, Shen)
 */
public class RestClientReportLogger {
    /**
     * Log RESTful service steps with web resource URI, request headers, request
     * body and response body
     *
     * @param client
     * @return
     */
    public void logRestAPIStep(RestClient<?> client) {
        Properties requestHeaders = client.getRequestHeaders();
        String requestBody = client.getRequest() != null ? client.getRequest()
                .toString() : null;
        Properties responseHeaders = client.getResponseHeaders();
        String responseBody = client.getResponse() != null ? client
                .getResponse().toString() : null;

        StringBuffer sbMessage = new StringBuffer("");
        sbMessage.append("<a href='" + client.getEndPoint()
                + "' target=apiurl>url</a>");

        String inputFileName = getRandomHashCode("rest-input");
        String outputFileName = getRandomHashCode("rest-output");
        String subFolder = ContextManager.getGlobalContext().getTestNGContext()
                .getSuite().getName();
        String outputDir = ContextManager.getGlobalContext()
                .getOutputDirectory();
        new File(outputDir + "/jsons").mkdirs();

        String postfix = ".json";
        if (client.getMediaType().equals(MediaType.APPLICATION_XML_TYPE)) {
            postfix = ".xml";
        }

        if (requestHeaders != null) {
            FileWriter fw = null;
            try {
                fw = new FileWriter(outputDir + "/jsons/" + inputFileName
                        + ".txt");
                fw.write("#Request Headers\n");
                for (Entry<Object, Object> entry : requestHeaders.entrySet()) {
                    fw.write(entry.getKey() + "=" + entry.getValue() + "\n");
                }
```



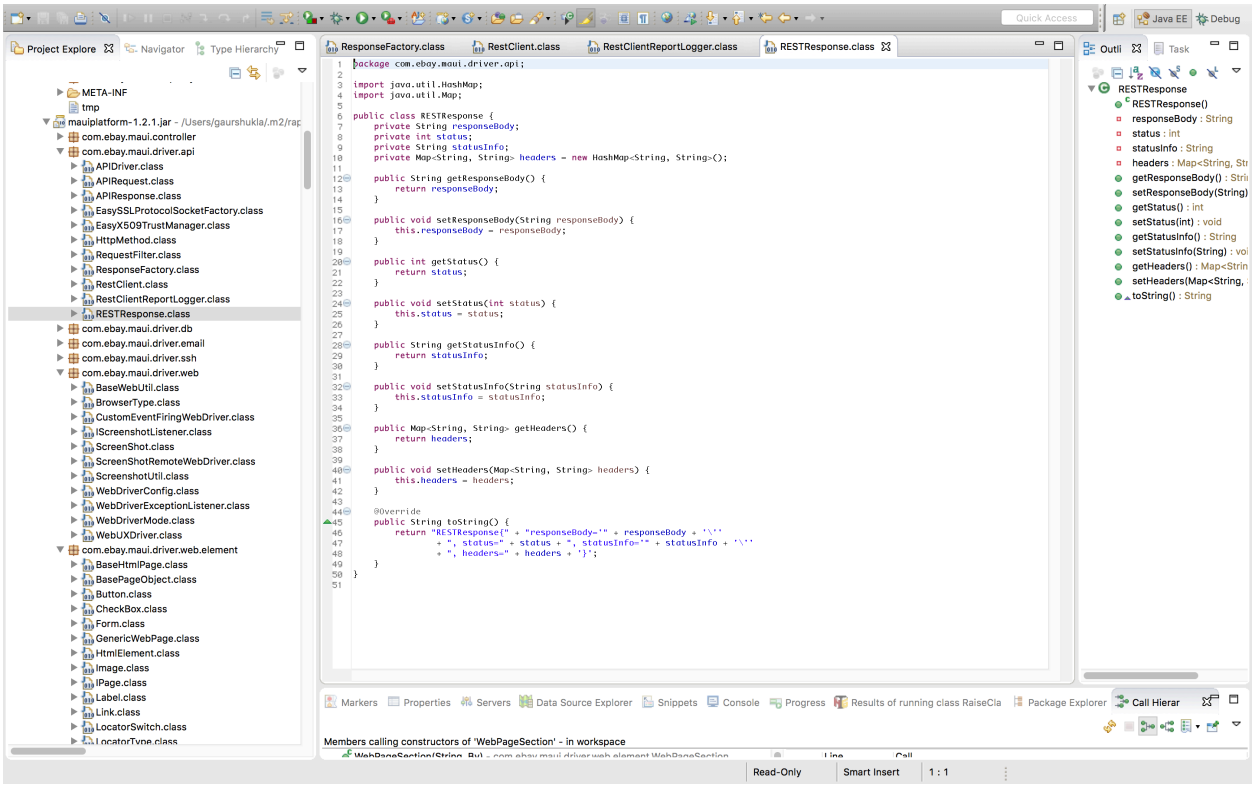
```
                + ".txt");
            fw.write("#Request Headers\n");
            for (Entry<Object, Object> entry : requestHeaders.entrySet()) {
                fw.write(entry.getKey() + "=" + entry.getValue() + "\n");
            }
            sbMessage.append(" | <a href='" + subFolder + "/jsons/"
                    + inputFileName
                    + ".txt' target=requestheaders>request headers</a>");
        } catch (IOException e) {
        } finally {
            if (fw != null) {
                try {
                    fw.close();
                } catch (IOException e) {
                }
            }
        }
    }

    if (requestBody != null) {
        try {
            FileHelper.writeToFile(outputDir + "/jsons/" + inputFileName
                    + postfix, requestBody);
        } catch (IOException e) {
            e.printStackTrace();
        }
        sbMessage.append(" | <a href='" + subFolder + "/jsons/"
                + inputFileName + postfix + "' target=input>input</a>");
    }

    if (responseHeaders != null) {
        FileWriter fw = null;
        try {
            fw = new FileWriter(outputDir + "/jsons/" + outputFileName
                    + ".txt");
            fw.write("#Response Headers\n");
            for (Entry<Object, Object> entry : responseHeaders.entrySet()) {
                fw.write(entry.getKey() + "=" + entry.getValue() + "\n");
            }
            sbMessage.append(" | <a href='" + subFolder + "/jsons/"
                    + outputFileName
                    + ".txt' target=responseheaders>response headers</a>");
        } catch (IOException e) {
        } finally {
            if (fw != null) {
                try {
                    fw.close();
                } catch (IOException e) {
                }
            }
        }
    }

    if (responseBody != null) {
        try {
            FileHelper.writeToFile(outputDir + "/jsons/" + outputFileName
                    + postfix, responseBody);
        } catch (IOException e) {
            e.printStackTrace();
        }

        sbMessage.append(" | <a href='" + subFolder + "/jsons/"
                + outputFileName + postfix + "' target=output>output</a>");
    }

    if (responseHeaders != null) {
```

Read-Only | Smart Insert | 1 : 1



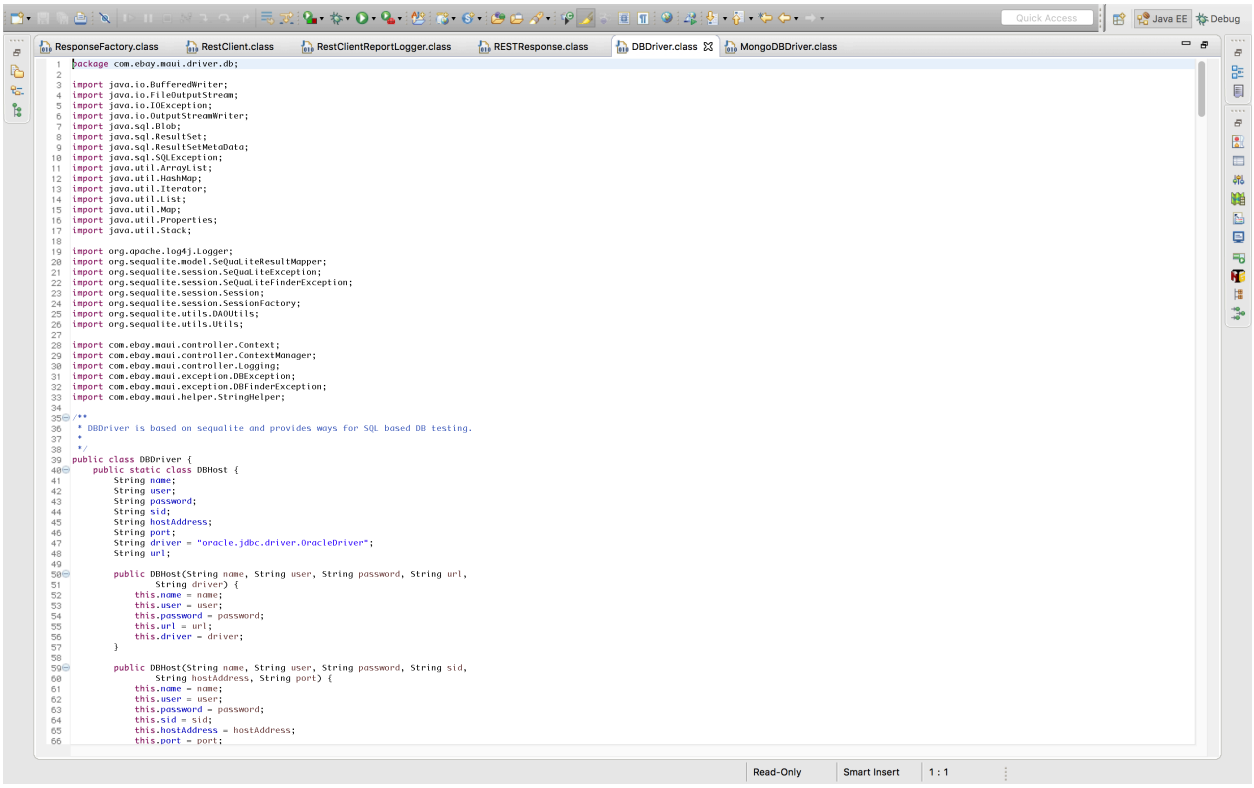
```
            FileWriter fw = null;
            try {
                fw = new FileWriter(outputDir + "/jsons/" + outputFileName
                        + ".txt");
                fw.write("#Response Headers\n");
                for (Entry<Object, Object> entry : responseHeaders.entrySet()) {
                    fw.write(entry.getKey() + "=" + entry.getValue() + "\n");
                }
                sbMessage.append(" | <a href='" + subFolder + "/jsons/"
                        + outputFileName
                        + ".txt' target=responseheaders>response headers</a>");
            } catch (IOException e) {
            } finally {
                if (fw != null) {
                    try {
                        fw.close();
                    } catch (IOException e) {
                    }
                }
            }
        }

        if (responseBody != null) {
            try {
                FileHelper.writeToFile(outputDir + "/jsons/" + outputFileName
                        + postfix, responseBody);
            } catch (IOException e) {
                e.printStackTrace();
            }

            sbMessage.append(" | <a href='" + subFolder + "/jsons/"
                    + outputFileName + postfix + "' target=output>output</a>");
        }

        if (responseHeaders != null) {
            String rlogId = null;
            if (responseHeaders.getProperty("RlogId") != null) {
                rlogId = responseHeaders.getProperty("RlogId");
            }
            if (rlogId != null) {
                if (ContextManager.getThreadContext().isCALLogEnabled()) {
                    String calURL = CALHelper.getCalURL(rlogId);
                    sbMessage.append(" | <a href='" + calURL
                            + "' target=cal>RlogId</a>");
                }
            }
        }

        Reporter.log("<text style=\"color:#555;font-size:12px;\">"
                + client.getHttpMethod() + " -- " + sbMessage.toString()
                + "</text>");
    }

    private String getRandomHashCode(String seed) {
        byte[] data = (UUID.randomUUID().getLeastSignificantBits() + seed)
                .getBytes();
        try {
            MessageDigest digest = MessageDigest.getInstance("MD5");
            return new BigInteger(1, digest.digest(data)).toString(16);
        } catch (Exception e2) {
            // OK, we won't digest
            return new String(data);
        }
    }
}
```

Read-Only | Smart Insert | 1 : 1

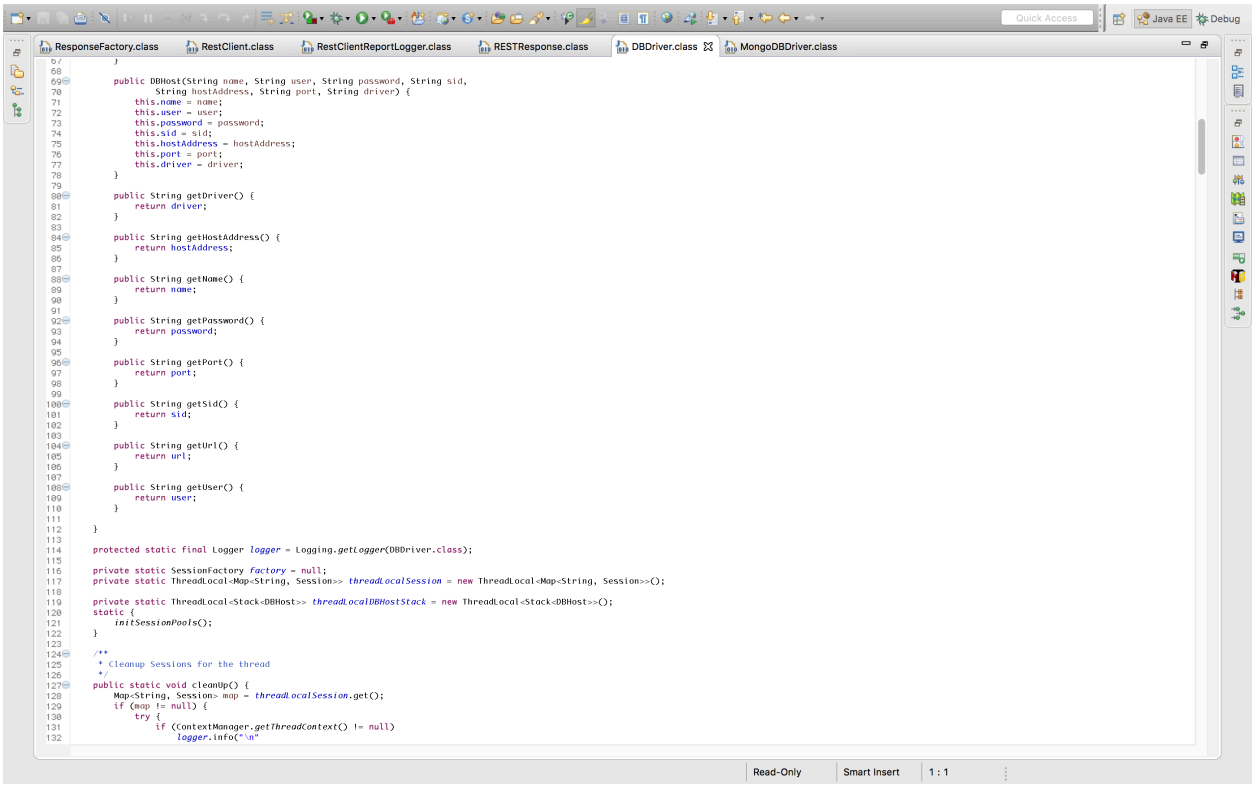



```java
package com.ebay.maui.driver.api;

import java.util.HashMap;
import java.util.Map;

public class RESTResponse {
    private String responseBody;
    private int status;
    private String statusInfo;
    private Map<String, String> headers = new HashMap<String, String>();

    public String getResponseBody() {
        return responseBody;
    }

    public void setResponseBody(String responseBody) {
        this.responseBody = responseBody;
    }

    public int getStatus() {
        return status;
    }

    public void setStatus(int status) {
        this.status = status;
    }

    public String getStatusInfo() {
        return statusInfo;
    }

    public void setStatusInfo(String statusInfo) {
        this.statusInfo = statusInfo;
    }

    public Map<String, String> getHeaders() {
        return headers;
    }

    public void setHeaders(Map<String, String> headers) {
        this.headers = headers;
    }

    @Override
    public String toString() {
        return "RESTResponse{" + "responseBody='" + responseBody + '\''
                + ", status=" + status + ", statusInfo='" + statusInfo + '\''
                + ", headers=" + headers + '}';
    }
}
```

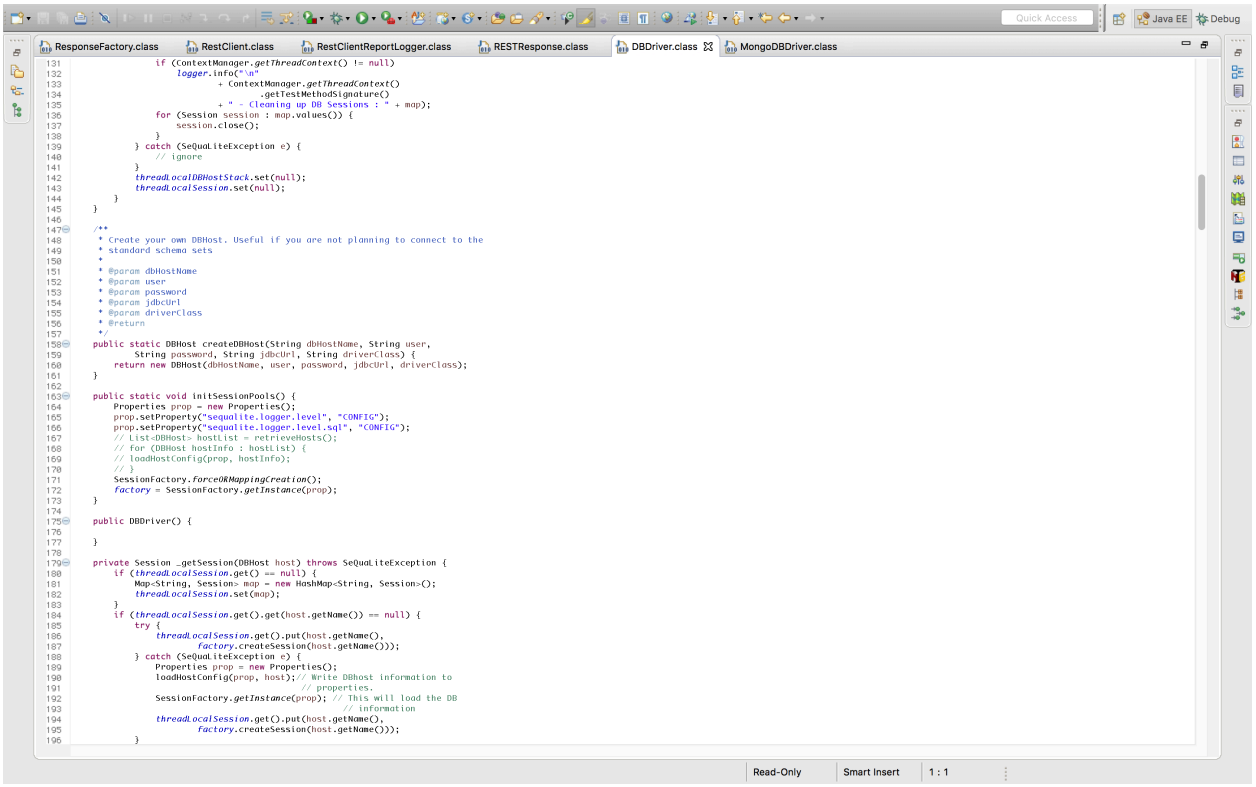
DB Driver:



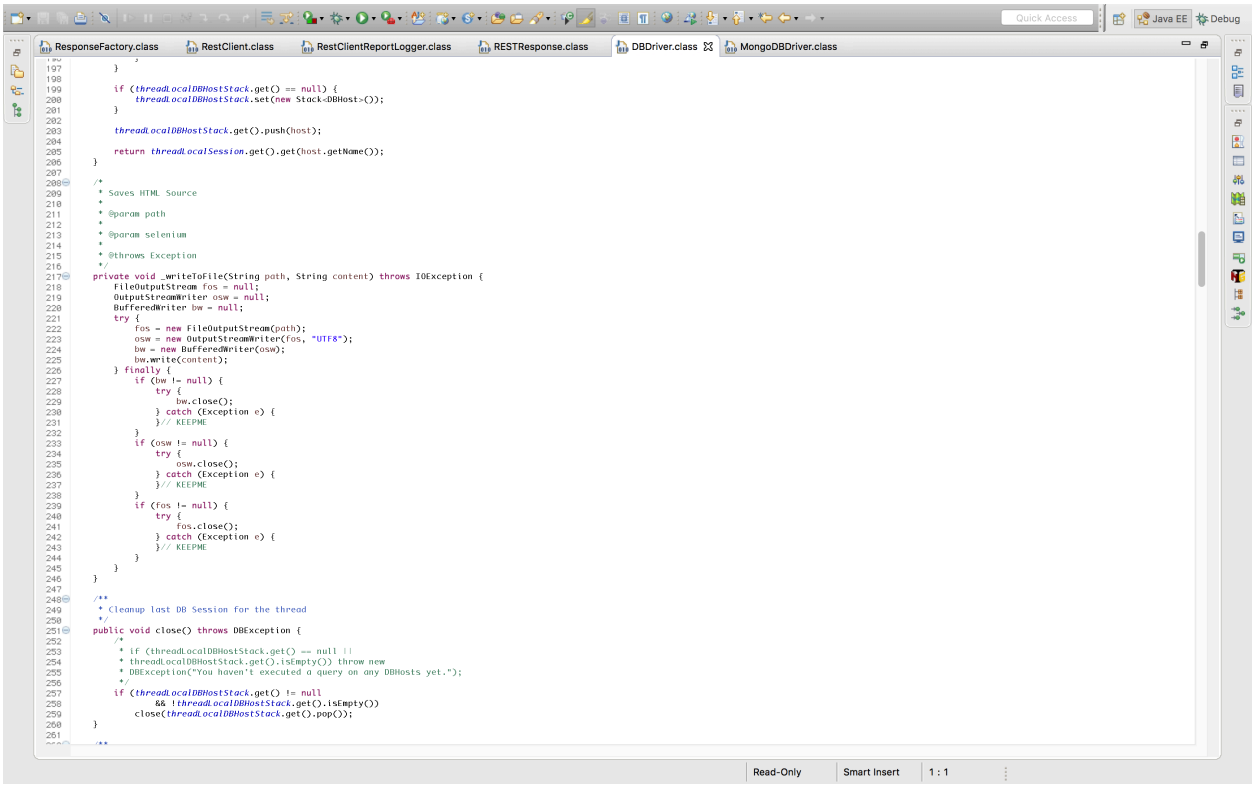

```
package com.ebay.maui.driver.db;

import java.io.BufferedWriter;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.OutputStreamWriter;
import java.sql.Blob;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.util.ArrayList;
import java.util.HashMap;
import java.util.Iterator;
import java.util.List;
import java.util.Map;
import java.util.Properties;
import java.util.Stack;

import org.apache.log4j.Logger;
import org.sequalite.model.SeQuaLiteResultMapper;
import org.sequalite.session.SeQuaLiteException;
import org.sequalite.session.SeQuaLiteFinderException;
import org.sequalite.session.Session;
import org.sequalite.session.SessionFactory;
import org.sequalite.utils.DAOUtils;
import org.sequalite.utils.Utils;

import com.ebay.maui.controller.Context;
import com.ebay.maui.controller.ContextManager;
import com.ebay.maui.controller.Logging;
import com.ebay.maui.exception.DBException;
import com.ebay.maui.exception.DBFinderException;
import com.ebay.maui.helper.StringHelper;

/**
 * DBDriver is based on sequalite and provides ways for SQL based DB testing.
 *
 */
public class DBDriver {
    public static class DBHost {
        String name;
        String user;
        String password;
        String sid;
        String hostAddress;
        String port;
        String driver = "oracle.jdbc.driver.OracleDriver";
        String url;

        public DBHost(String name, String user, String password, String url,
                String driver) {
            this.name = name;
            this.user = user;
            this.password = password;
            this.url = url;
            this.driver = driver;
        }

        public DBHost(String name, String user, String password, String sid,
                String hostAddress, String port) {
            this.name = name;
            this.user = user;
            this.password = password;
            this.sid = sid;
            this.hostAddress = hostAddress;
            this.port = port;
```



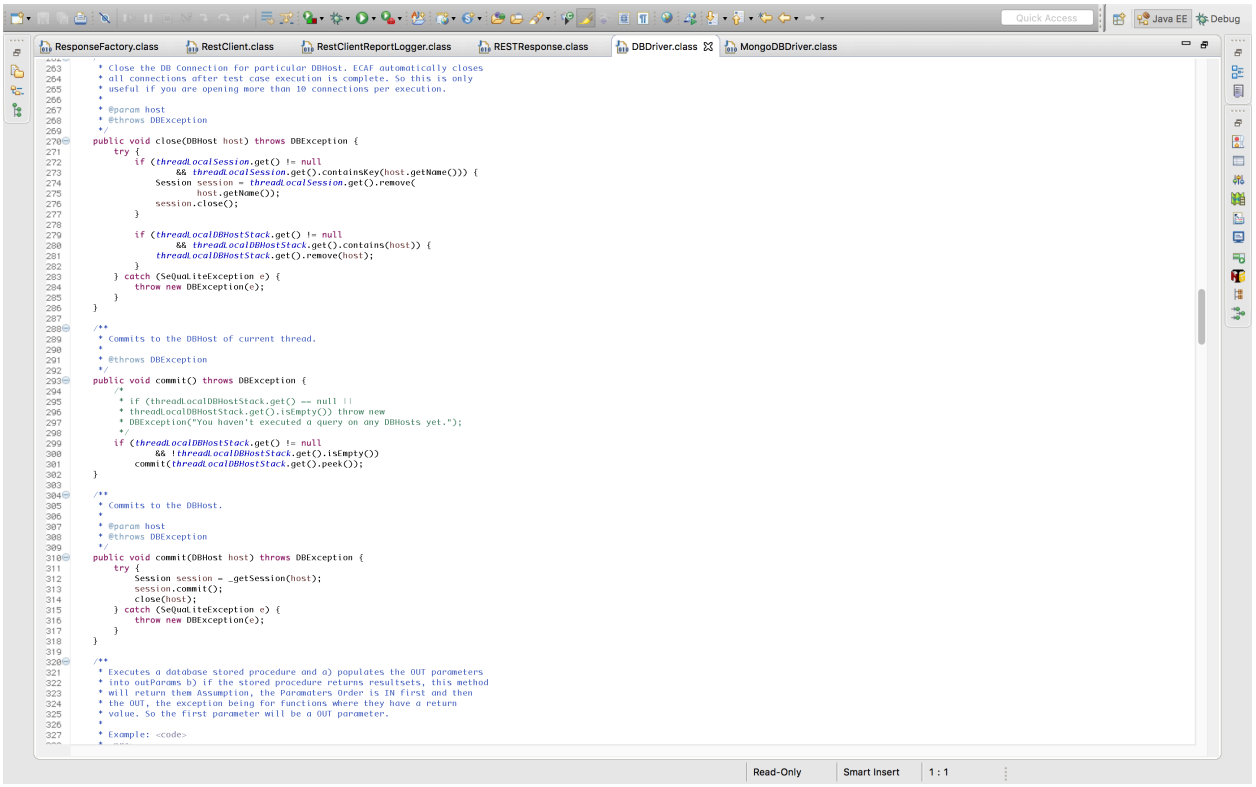

```
        }

        public DBHost(String name, String user, String password, String sid,
                String hostAddress, String port, String driver) {
            this.name = name;
            this.user = user;
            this.password = password;
            this.sid = sid;
            this.hostAddress = hostAddress;
            this.port = port;
            this.driver = driver;
        }

        public String getDriver() {
            return driver;
        }

        public String getHostAddress() {
            return hostAddress;
        }

        public String getName() {
            return name;
        }

        public String getPassword() {
            return password;
        }

        public String getPort() {
            return port;
        }

        public String getSid() {
            return sid;
        }

        public String getUrl() {
            return url;
        }

        public String getUser() {
            return user;
        }

    }

    protected static final Logger logger = Logging.getLogger(DBDriver.class);

    private static SessionFactory factory = null;
    private static ThreadLocal<Map<String, Session>> threadLocalSession = new ThreadLocal<Map<String, Session>>();

    private static ThreadLocal<Stack<DBHost>> threadLocalDBHostStack = new ThreadLocal<Stack<DBHost>>();
    static {
        initSessionPools();
    }

    /**
     * Cleanup Sessions for the thread
     */
    public static void cleanUp() {
        Map<String, Session> map = threadLocalSession.get();
        if (map != null) {
            try {
                if (ContextManager.getThreadContext() != null)
                    logger.info("\n"
```




```
                if (ContextManager.getThreadContext() != null)
                    logger.info("\n"
                            + ContextManager.getThreadContext()
                                    .getTestMethodSignature()
                            + " - Cleaning up DB Sessions : " + map);
                for (Session session : map.values()) {
                    session.close();
                }
            } catch (SeQuaLiteException e) {
                // ignore
            }
            threadLocalDBHostStack.set(null);
            threadLocalSession.set(null);
        }
    }

    /**
     * Create your own DBHost. Useful if you are not planning to connect to the
     * standard schema sets
     *
     * @param dbHostName
     * @param user
     * @param password
     * @param jdbcUrl
     * @param driverClass
     * @return
     */
    public static DBHost createDBHost(String dbHostName, String user,
            String password, String jdbcUrl, String driverClass) {
        return new DBHost(dbHostName, user, password, jdbcUrl, driverClass);
    }

    public static void initSessionPools() {
        Properties prop = new Properties();
        prop.setProperty("sequalite.logger.level", "CONFIG");
        prop.setProperty("sequalite.logger.level.sql", "CONFIG");
        // List<DBHost> hostList = retrieveHosts();
        // for (DBHost hostInfo : hostList) {
        // loadHostConfig(prop, hostInfo);
        // }
        SessionFactory.forceORMappingCreation();
        factory = SessionFactory.getInstance(prop);
    }

    public DBDriver() {

    }

    private Session _getSession(DBHost host) throws SeQuaLiteException {
        if (threadLocalSession.get() == null) {
            Map<String, Session> map = new HashMap<String, Session>();
            threadLocalSession.set(map);
        }
        if (threadLocalSession.get().get(host.getName()) == null) {
            try {
                threadLocalSession.get().put(host.getName(),
                        factory.createSession(host.getName()));
            } catch (SeQuaLiteException e) {
                Properties prop = new Properties();
                loadHostConfig(prop, host);// Write DBhost information to
                                           // properties.
                SessionFactory.getInstance(prop); // This will load the DB
                                                  // information
                threadLocalSession.get().put(host.getName(),
                        factory.createSession(host.getName()));
            }
```




```
        }

        if (threadLocalDBHostStack.get() == null) {
            threadLocalDBHostStack.set(new Stack<DBHost>());
        }

        threadLocalDBHostStack.get().push(host);

        return threadLocalSession.get().get(host.getName());
    }

    /*
     * Saves HTML Source
     *
     * @param path
     *
     * @param selenium
     *
     * @throws Exception
     */
    private void _writeToFile(String path, String content) throws IOException {
        FileOutputStream fos = null;
        OutputStreamWriter osw = null;
        BufferedWriter bw = null;
        try {
            fos = new FileOutputStream(path);
            osw = new OutputStreamWriter(fos, "UTF8");
            bw = new BufferedWriter(osw);
            bw.write(content);
        } finally {
            if (bw != null) {
                try {
                    bw.close();
                } catch (Exception e) {
                }// KEEPME
            }
            if (osw != null) {
                try {
                    osw.close();
                } catch (Exception e) {
                }// KEEPME
            }
            if (fos != null) {
                try {
                    fos.close();
                } catch (Exception e) {
                }// KEEPME
            }
        }
    }

    /**
     * Cleanup last DB Session for the thread
     */
    public void close() throws DBException {
        /*
         * if (threadLocalDBHostStack.get() == null ||
         * threadLocalDBHostStack.get().isEmpty()) throw new
         * DBException("You haven't executed a query on any DBHosts yet.");
         */
        if (threadLocalDBHostStack.get() != null
                && !threadLocalDBHostStack.get().isEmpty())
            close(threadLocalDBHostStack.get().pop());
    }

    /**
```


ResponseFactory.class
RestClient.class
RestClientReportLogger.class
RESTResponse.class
DBDriver.class
MongoDBDriver.class
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Java EE
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Read-Only
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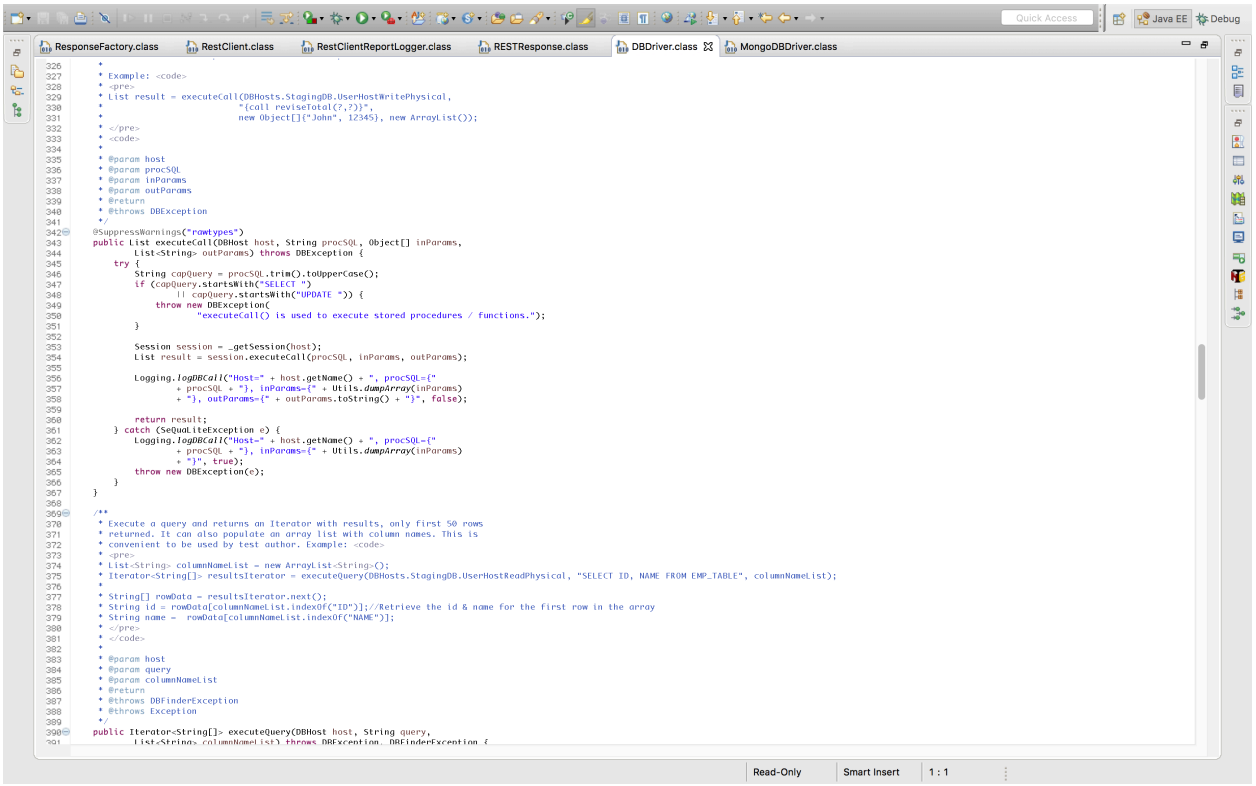
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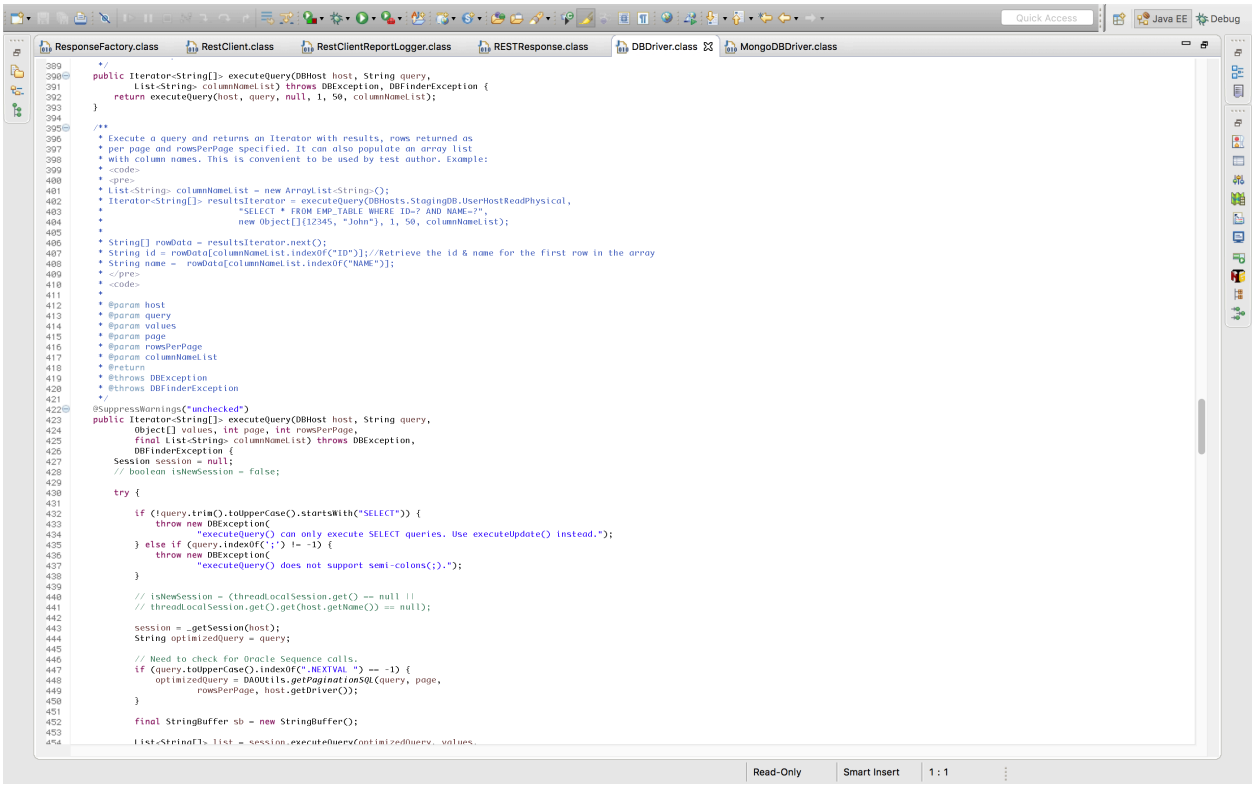
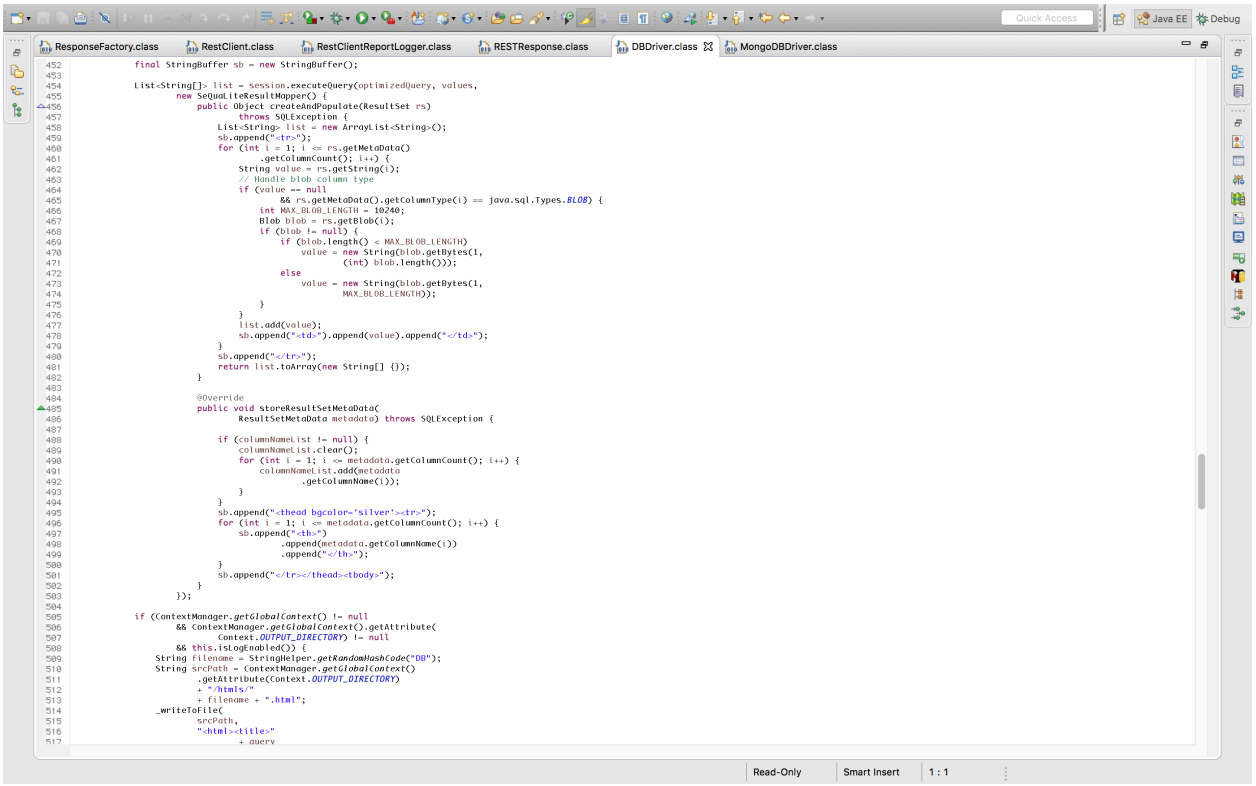
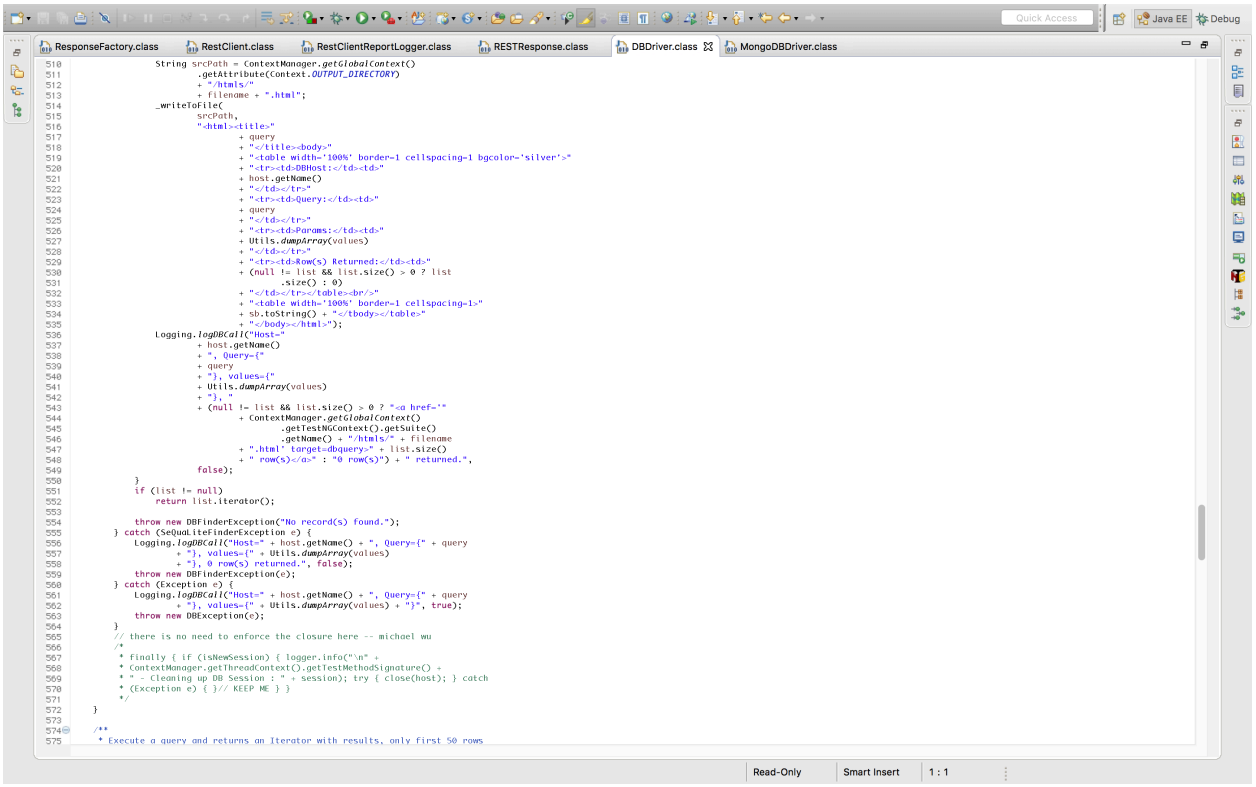



```
     */
    public Iterator<String[]> executeQuery(DBHost host, String query,
            List<String> columnNameList) throws DBException, DBFinderException {
        return executeQuery(host, query, null, 1, 50, columnNameList);
    }

    /**
     * Execute a query and returns an Iterator with results, rows returned as
     * per page and rowsPerPage specified. It can also populate an array list
     * with column names. This is convenient to be used by test author. Example:
     * <code>
     * <pre>
     * List<String> columnNameList = new ArrayList<String>();
     * Iterator<String[]> resultsIterator = executeQuery(DBHosts.StagingDB.UserHostReadPhysical,
     *                         "SELECT * FROM EMP_TABLE WHERE ID=? AND NAME=?",
     *                         new Object[]{12345, "John"}, 1, 50, columnNameList);
     *
     * String[] rowData = resultsIterator.next();
     * String id = rowData[columnNameList.indexOf("ID")];//Retrieve the id & name for the first row in the array
     * String name =  rowData[columnNameList.indexOf("NAME")];
     * </pre>
     * </code>
     *
     * @param host
     * @param query
     * @param values
     * @param page
     * @param rowsPerPage
     * @param columnNameList
     * @return
     * @throws DBException
     * @throws DBFinderException
     */
    @SuppressWarnings("unchecked")
    public Iterator<String[]> executeQuery(DBHost host, String query,
            Object[] values, int page, int rowsPerPage,
            final List<String> columnNameList) throws DBException,
            DBFinderException {
        Session session = null;
        // boolean isNewSession = false;

        try {

            if (!query.trim().toUpperCase().startsWith("SELECT")) {
                throw new DBException(
                        "executeQuery() can only execute SELECT queries. Use executeUpdate() instead.");
            } else if (query.indexOf(';') != -1) {
                throw new DBException(
                        "executeQuery() does not support semi-colons(;).");
            }

            // isNewSession = (threadLocalSession.get() == null ||
            // threadLocalSession.get().get(host.getName()) == null);

            session = _getSession(host);
            String optimizedQuery = query;

            // Need to check for Oracle Sequence calls.
            if (query.toUpperCase().indexOf(".NEXTVAL ") == -1) {
                optimizedQuery = DAOUtils.getPaginationSQL(query, page,
                        rowsPerPage, host.getDriver());
            }

            final StringBuffer sb = new StringBuffer();

            List<String[]> list = session.executeQuery(optimizedQuery, values,
```




```
            final StringBuffer sb = new StringBuffer();

            List<String[]> list = session.executeQuery(optimizedQuery, values,
                    new SeQuaLiteResultMapper() {
                        public Object createAndPopulate(ResultSet rs)
                                throws SQLException {
                            List<String> list = new ArrayList<String>();
                            sb.append("<tr>");
                            for (int i = 1; i <= rs.getMetaData()
                                    .getColumnCount(); i++) {
                                String value = rs.getString(i);
                                // Handle blob column type
                                if (value == null
                                        && rs.getMetaData().getColumnType(i) == java.sql.Types.BLOB) {
                                    int MAX_BLOB_LENGTH = 10240;
                                    Blob blob = rs.getBlob(i);
                                    if (blob != null) {
                                        if (blob.length() < MAX_BLOB_LENGTH)
                                            value = new String(blob.getBytes(1,
                                                    (int) blob.length()));
                                        else
                                            value = new String(blob.getBytes(1,
                                                    MAX_BLOB_LENGTH));
                                    }
                                }
                                list.add(value);
                                sb.append("<td>").append(value).append("</td>");
                            }
                            sb.append("</tr>");
                            return list.toArray(new String[] {});
                        }

                        @Override
                        public void storeResultSetMetaData(
                                ResultSetMetaData metadata) throws SQLException {

                            if (columnNameList != null) {
                                columnNameList.clear();
                                for (int i = 1; i <= metadata.getColumnCount(); i++) {
                                    columnNameList.add(metadata
                                            .getColumnName(i));
                                }
                            }
                            sb.append("<thead bgcolor='silver'><tr>");
                            for (int i = 1; i <= metadata.getColumnCount(); i++) {
                                sb.append("<th>")
                                        .append(metadata.getColumnName(i))
                                        .append("</th>");
                            }
                            sb.append("</tr></thead><tbody>");
                        }
                    });

            if (ContextManager.getGlobalContext() != null
                    && ContextManager.getGlobalContext().getAttribute(
                            Context.OUTPUT_DIRECTORY) != null
                    && this.isLogEnabled()) {
                String filename = StringHelper.getRandomHashCode("DB");
                String srcPath = ContextManager.getGlobalContext()
                        .getAttribute(Context.OUTPUT_DIRECTORY)
                        + "/html5/"
                        + filename + ".html";
                _writeToFile(
                        srcPath,
                        "<html><title>"
                                + query
```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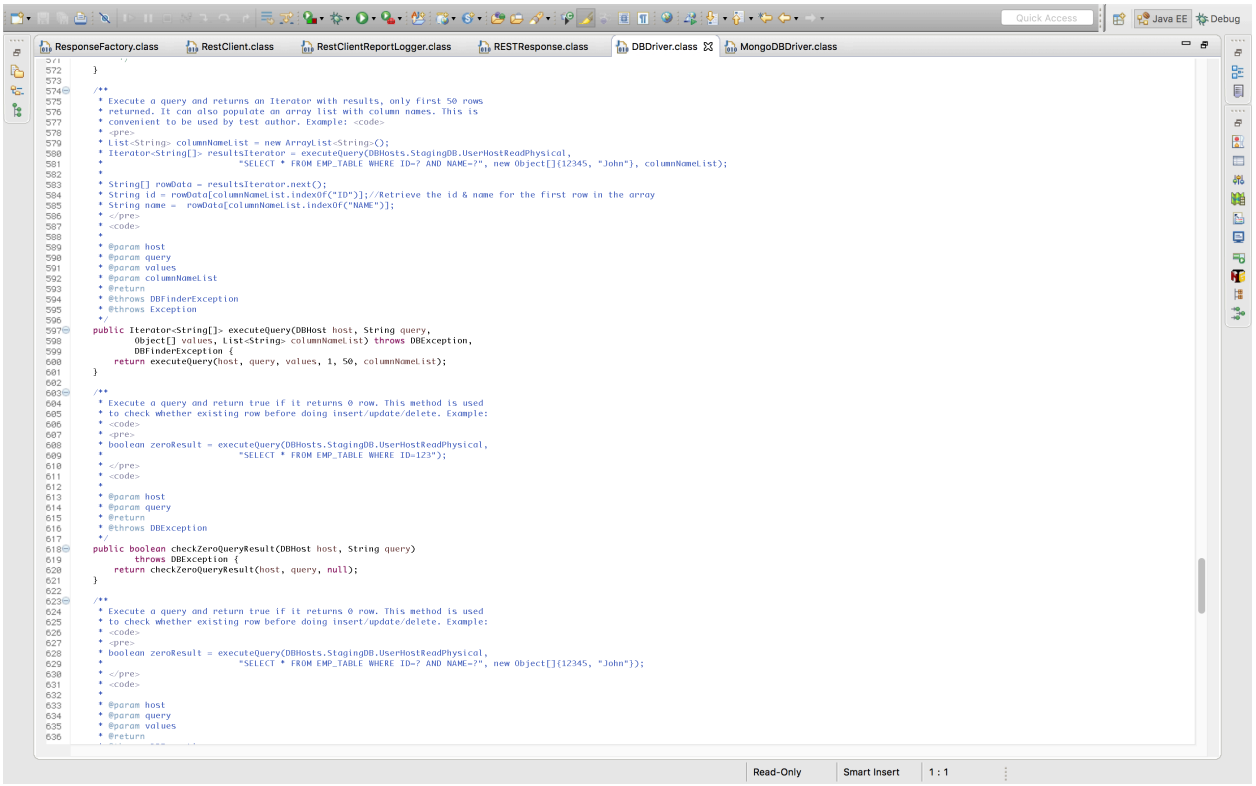
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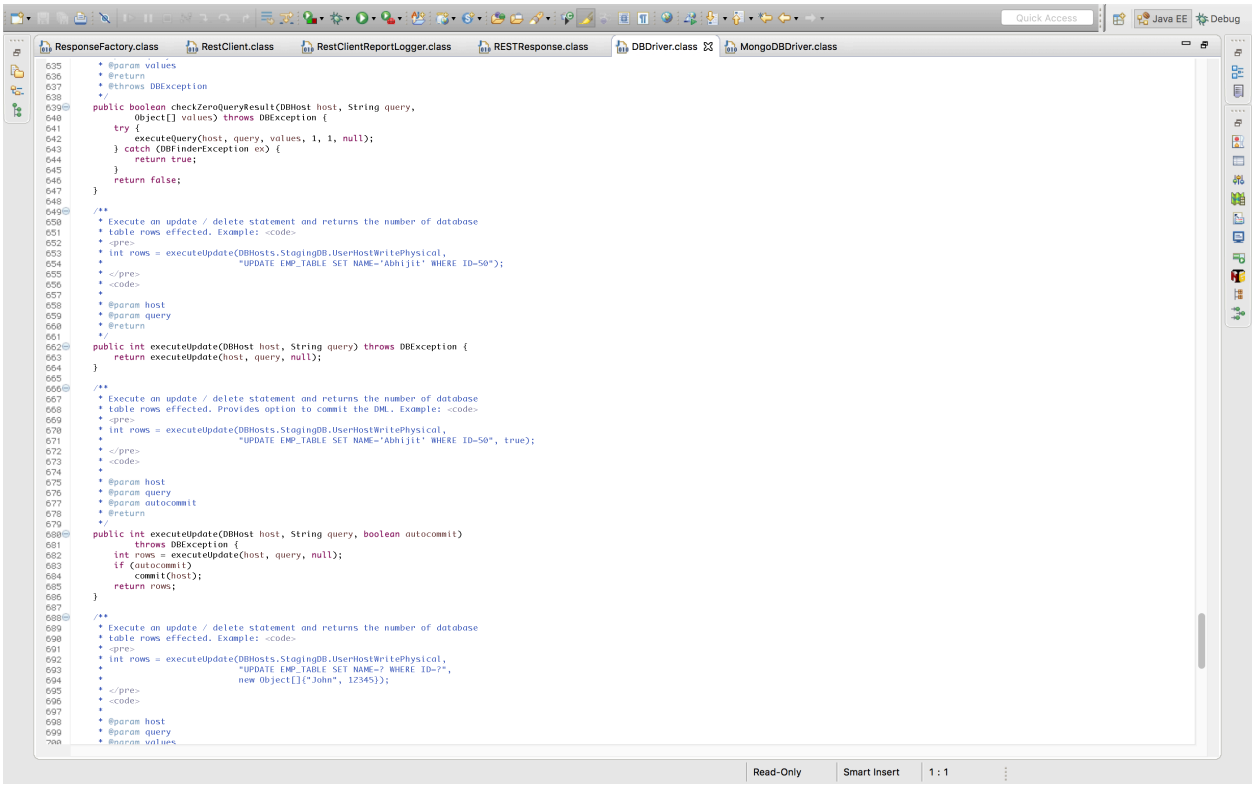
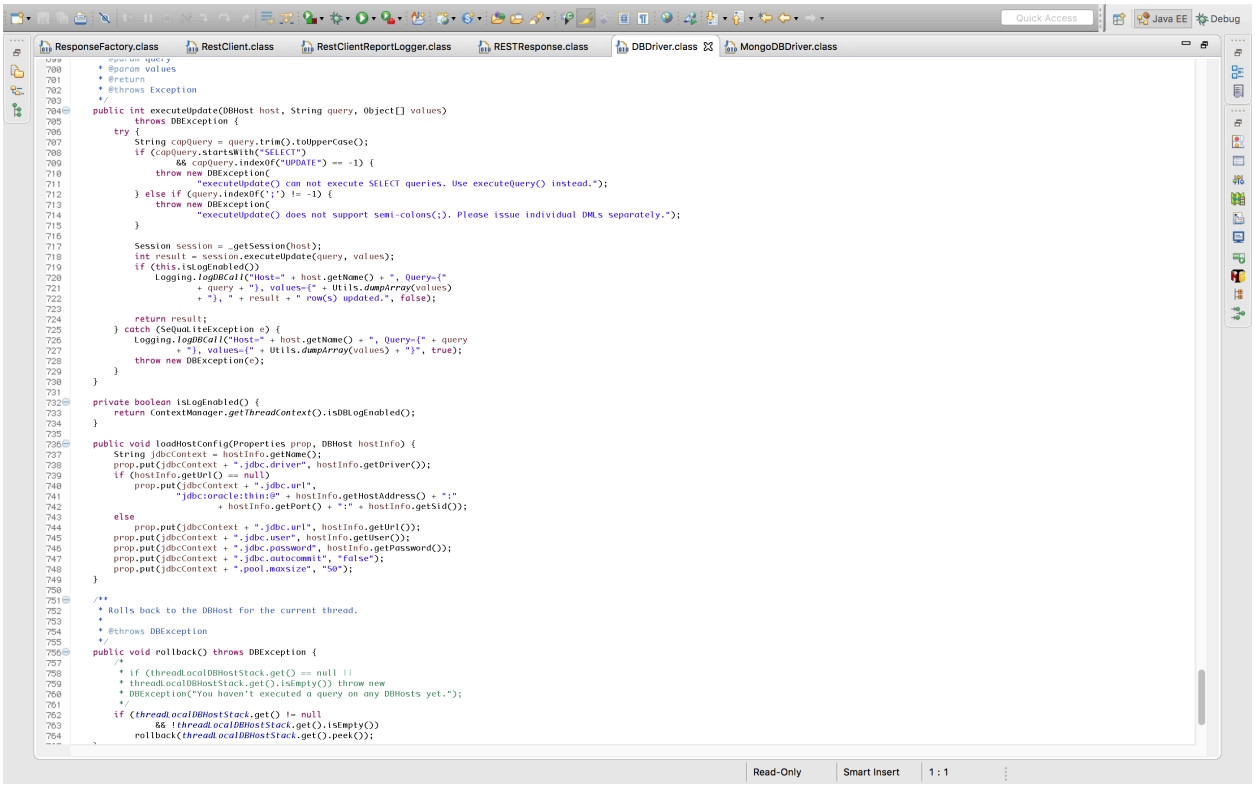
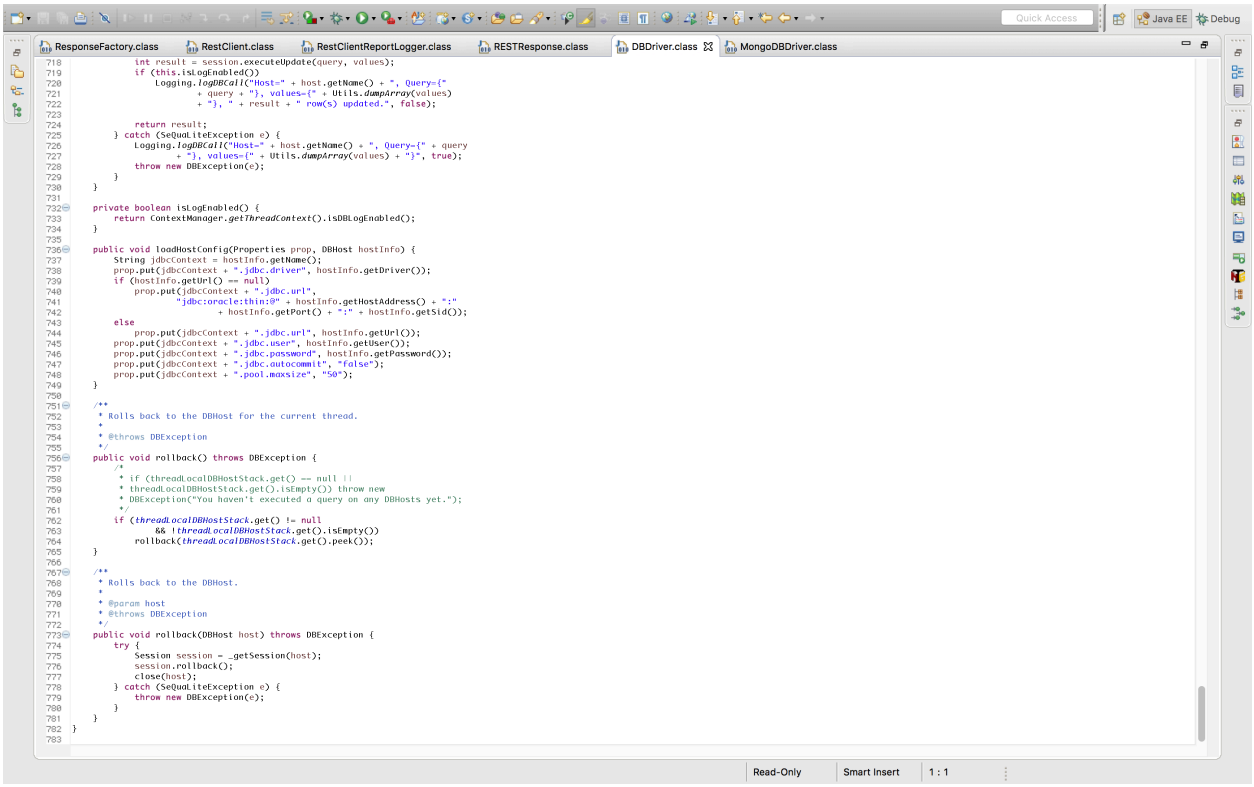



```
     * @param values
     * @return
     * @throws DBException
     */
    public boolean checkZeroQueryResult(DBHost host, String query,
            Object[] values) throws DBException {
        try {
            executeQuery(host, query, values, 1, 1, null);
        } catch (DBFinderException ex) {
            return true;
        }
        return false;
    }

    /**
     * Execute an update / delete statement and returns the number of database
     * table rows effected. Example: <code>
     * <pre>
     * int rows = executeUpdate(DBHosts.StagingDB.UserHostWritePhysical,
     *                          "UPDATE EMP_TABLE SET NAME='Abhijit' WHERE ID=50");
     * </pre>
     * <code>
     *
     * @param host
     * @param query
     * @return
     */
    public int executeUpdate(DBHost host, String query) throws DBException {
        return executeUpdate(host, query, null);
    }

    /**
     * Execute an update / delete statement and returns the number of database
     * table rows effected. Provides option to commit the DML. Example: <code>
     * <pre>
     * int rows = executeUpdate(DBHosts.StagingDB.UserHostWritePhysical,
     *                          "UPDATE EMP_TABLE SET NAME='Abhijit' WHERE ID=50", true);
     * </pre>
     * <code>
     *
     * @param host
     * @param query
     * @param autocommit
     * @return
     */
    public int executeUpdate(DBHost host, String query, boolean autocommit)
            throws DBException {
        int rows = executeUpdate(host, query, null);
        if (autocommit)
            commit(host);
        return rows;
    }

    /**
     * Execute an update / delete statement and returns the number of database
     * table rows effected. Example: <code>
     * <pre>
     * int rows = executeUpdate(DBHosts.StagingDB.UserHostWritePhysical,
     *                          "UPDATE EMP_TABLE SET NAME=? WHERE ID=?",
     *                          new Object[]{"John", 12345});
     * </pre>
     * <code>
     *
     * @param host
     * @param query
     * @param values
```




```
     * @param values
     * @return
     * @throws Exception
     */
    public int executeUpdate(DBHost host, String query, Object[] values)
            throws DBException {
        try {
            String capQuery = query.trim().toUpperCase();
            if (capQuery.startsWith("SELECT")
                    && capQuery.indexOf("UPDATE") == -1) {
                throw new DBException(
                        "executeUpdate() can not execute SELECT queries. Use executeQuery() instead.");
            } else if (query.indexOf(';') != -1) {
                throw new DBException(
                        "executeUpdate() does not support semi-colons(;). Please issue individual DMLs separately.");
            }

            Session session = _getSession(host);
            int result = session.executeUpdate(query, values);
            if (this.isLogEnabled())
                Logging.logDBCall("Host=" + host.getName() + ", Query={"
                        + query + "}, values={" + Utils.dumpArray(values)
                        + "}, " + result + " row(s) updated.", false);

            return result;
        } catch (SeQuaLiteException e) {
            Logging.logDBCall("Host=" + host.getName() + ", Query={" + query
                    + "}, values={" + Utils.dumpArray(values) + "}", true);
            throw new DBException(e);
        }
    }

    private boolean isLogEnabled() {
        return ContextManager.getThreadContext().isDBLogEnabled();
    }

    public void loadHostConfig(Properties prop, DBHost hostInfo) {
        String jdbcContext = hostInfo.getName();
        prop.put(jdbcContext + ".jdbc.driver", hostInfo.getDriver());
        if (hostInfo.getUrl() == null)
            prop.put(jdbcContext + ".jdbc.url",
                    "jdbc:oracle:thin:@" + hostInfo.getHostAddress() + ":"
                            + hostInfo.getPort() + ":" + hostInfo.getSid());
        else
            prop.put(jdbcContext + ".jdbc.url", hostInfo.getUrl());
        prop.put(jdbcContext + ".jdbc.user", hostInfo.getUser());
        prop.put(jdbcContext + ".jdbc.password", hostInfo.getPassword());
        prop.put(jdbcContext + ".jdbc.autocommit", "false");
        prop.put(jdbcContext + ".pool.maxsize", "50");
    }

    /**
     * Rolls back to the DBHost for the current thread.
     *
     * @throws DBException
     */
    public void rollback() throws DBException {
        /*
         * if (threadLocalDBHostStack.get() == null ||
         * threadLocalDBHostStack.get().isEmpty()) throw new
         * DBException("You haven't executed a query on any DBHosts yet.");
         */
        if (threadLocalDBHostStack.get() != null
                && !threadLocalDBHostStack.get().isEmpty())
            rollback(threadLocalDBHostStack.get().peek());
    }
```




```
718             int result = session.executeUpdate(query, values);
719             if (this.isLogEnabled())
720                 Logging.logDBCall("Host=" + host.getName() + ", Query={"
721                         + query + "}, values={" + Utils.dumpArray(values)
722                         + "}, " + result + " row(s) updated.", false);
723
724             return result;
725         } catch (SeQuaLiteException e) {
726             Logging.logDBCall("Host=" + host.getName() + ", Query={" + query
727                     + "}, values={" + Utils.dumpArray(values) + "}", true);
728             throw new DBException(e);
729         }
730     }
731
732     private boolean isLogEnabled() {
733         return ContextManager.getThreadContext().isDBLogEnabled();
734     }
735
736     public void loadHostConfig(Properties prop, DBHost hostInfo) {
737         String jdbcContext = hostInfo.getName();
738         prop.put(jdbcContext + ".jdbc.driver", hostInfo.getDriver());
739         if (hostInfo.getUrl() == null)
740             prop.put(jdbcContext + ".jdbc.url",
741                     "jdbc:oracle:thin:@" + hostInfo.getHostAddress() + ":"
742                             + hostInfo.getPort() + ":" + hostInfo.getSid());
743         else
744             prop.put(jdbcContext + ".jdbc.url", hostInfo.getUrl());
745         prop.put(jdbcContext + ".jdbc.user", hostInfo.getUser());
746         prop.put(jdbcContext + ".jdbc.password", hostInfo.getPassword());
747         prop.put(jdbcContext + ".jdbc.autocommit", "false");
748         prop.put(jdbcContext + ".pool.maxsize", "50");
749     }
750
751     /**
752      * Rolls back to the DBHost for the current thread.
753      *
754      * @throws DBException
755      */
756     public void rollback() throws DBException {
757         /*
758          * if (threadLocalDBHostStack.get() == null ||
759          * threadLocalDBHostStack.get().isEmpty()) throw new
760          * DBException("You haven't executed a query on any DBHosts yet.");
761          */
762         if (threadLocalDBHostStack.get() != null
763                 && !threadLocalDBHostStack.get().isEmpty())
764             rollback(threadLocalDBHostStack.get().peek());
765     }
766
767     /**
768      * Rolls back to the DBHost.
769      *
770      * @param host
771      * @throws DBException
772      */
773     public void rollback(DBHost host) throws DBException {
774         try {
775             Session session = _getSession(host);
776             session.rollback();
777             close(host);
778         } catch (SeQuaLiteException e) {
779             throw new DBException(e);
780         }
781     }
782 }
783
```