Report de stage pour le periode de 26 mai au 4 juin.

Recap on previous position.
At our last meeting and report submission I had several prombels trying to get my computer to run web-services this was due to several factors .

(i) The version of JDK which was JDK version 1.1 was too old and inadequate to run web-services.
(ii) JDK 1.1 was still be used despite the new installation of JDK1.3.1_08 and the setting of the CLASSPATH to point to the new version .
(iii) JBuilder8 refused to accept the various apache axis .jar files.
(iv) Failure to set the classpath of JDK1.3.1_08

Current position in breif
Each of the various problems have been sucessfully resolved and I'ma pleased to announce that I have sucessfully run all the cds web services and I have also written my own web-service to calculate the area of a circle given either a diameter or radius.

Acceptance of JDK1.8_03
In order for the computer to override the older version of JDK and use the newer one it was necessary to write the following shell script:

_____
- - : - - .bash-profile [shell-script [tsch] - -L1| - -ALL - -
! / bin /tsch

echo "Loading tsch prefs for $LOGNAME " ;

setenv PATH $HOME / bin : /usr/java/jdk1.3.1_08/bin :$ PATH;
_____

Following this JDK1.3.1_08 was accepted and is now the efault version of JDK on my installation.

Setting the Classpath.
In order to get web-services to run one must add the libraries in your CLASSPATH
such as axis.jar, jaxrpc.jar, saaj.jar, commons-discovery.jar, commons-logging.jar . This proved more difficult than had been previously envisaged.As of yet I have been unable to correctly set the Classpath to include these libraries to run web-services, however this is now a redundab=nt exercise since I can now run Web-services through the development kit JBuilder8.

JBuilder8

Again with JBuilder I had a similar problem to that of JDK1.3.1_08 ie that of adding the various libraries t the CLASSPATH but I found a solution to thiswhich proved to very quick and easy. Again my inexperience with downloading software on linux coupled with my inexperinece of JBuilder8 has lend to delays as well as the fact that that in my version of JBuilder8 there are no help files. After chatting to other software developers outside of work I disscovered just how easy it was to add the downloaded libraries.

The cds-webservices:
Now that I can run web-services I have run the three web-services on
http://cdsweb.u-strasbg.fr/cdsws.gmldsweb

Circle web-service:
Although this is a very basic and rudimentary program I believe it demonstates that I have grasped the basics of the technology and that this is a very important step:

This is the code for the web-service:

SimpleCircle.jws

```java
public class SimpleCircle
{

  public double area(double radius)
  {
    return (radius*radius)*3.14;
  }



}
```

SimpleCircleClient.java

```java
import java.io.*;
import org.apache.axis.client.Call;
import org.apache.axis.client.Service;
import org.apache.axis.encoding.XMLType;
import javax.xml.rpc.ParameterMode;
import javax.xml.namespace.QName;
import javax.xml.rpc.*;
import java.net.*;
import org.apache.*;


public class SimpleCircleClient{

 public static double ans = 0.0;
 public static double radius = 0.0;
 public static double diameter = 0.0;
 public static String userName= null;
 public static String method ="area";
 public static String choice=null;

public static void main(String [] args) throws Exception
 {

   BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
   Service service = new Service();

   String endpoint = "http://localhost:8080/axis/SimpleCircle.jws";
   System.out.println("*******************************************************************************");
```

```java
      System.out.println("Please choose either Diameter or Radius by typing either radius or diameter");
      choice=br.readLine();

      if((choice.equals("diameter"))||(choice.equals("Diameter")) )
      {
        System.out.println("Please enter a diameter");

        try
         {
           userName=br.readLine();
           diameter=Double.parseDouble(userName);
           radius =diameter/2;
         }

        catch(IOException ioe)
        {
          System.out.println("Error");
          System.exit(1);
        }

    }
  else
  if((choice.equals("radius"))||(choice.equals("Radius")))
  {
    System.out.println("Please enter a radius");

    try
     {
       userName=br.readLine();
       radius=Double.parseDouble(userName);

     }

     catch(IOException ioe)
     {
     System.out.println("Error ");
     System.exit(1);
     }

   }

  else
  {
    System.out.println("Error");
    System.exit(1);
  }

    Call     call    = (Call) service.createCall();
    call.setTargetEndpointAddress(new java.net.URL(endpoint));
    call.setOperationName(new QName(method));
    Double i1 = new Double(radius);
    Double ret = (Double) call.invoke( new Object [] {i1});
    System.out.println("The area of the circle is " + ret);
      }
  }
```

The Program runs as follows

1st use

Please choose either Diameter or Radius by typing either radius or diameter
radius
Please enter a radius
25
The area of the circle is 1962.5

2nd use

Please choose either Diameter or Radius by typing either radius or diameter
Diameter
Please enter a diameter
50
The area of the circle is 1962.5