

CIA MTA. Lab 6

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07 September 2016

1 Step by step Sendmail installation from sources and setup

1. Downloading sources from official site

```
wget ftp://ftp.sendmail.org/pub/sendmail/sendmail.8.15.2.tar.gz
```

2. Cheking signature of file

```
wget ftp://ftp.sendmail.org/pub/sendmail/sendmail.8.15.2.tar.gz.sig
wget http://www.sendmail.com/sm/open_source/security/pgp_keys/sendmail2015.asc
gpg --import sendmail2015.asc
gpg --verify sendmail.8.15.2.tar.gz.sig
```

3. Extract souces

```
tar -xzvf sendmail.8.15.2.tar.gz
```

4. Realizing that we haven't enabled php in apache2 config.

```
nano /etc/apache2/apache2.conf
LoadModule php7_module modules/libphp7.so
```

5. Realizing that we haven't got libapache2-mod-php and apache2 won't start without it.

```
sudo apt install libapache2-mod-php
```

6. Restarting apache2.

```
sudo service apache2 restart
```

7. Go to <http://localhost/dokuwiki/doku.php> and add our first page about Federative Wiki

2 XML entities creating

1. XML + DDT

```

<!DOCTYPE root
[
<!ELEMENT root (animal)>
<!ELEMENT animal (name,skin,voice)>
<!ELEMENT name (#PCDATA)>
<!ELEMENT skin (#PCDATA)>
<!ELEMENT voice (#PCDATA)>
<!ENTITY skin "have skin">
<!ENTITY fur "have fur">
<!ENTITY feathers "have feathers">
<!ENTITY bark "bark">
<!ENTITY mur "mur">
<!ENTITY bee "bee">
<!ENTITY brr "brr">
<!ENTITY mooo "mooo">
<!ENTITY oink "oink">
<!ENTITY whistle "whistle">
<!ENTITY no_voice "no_voice">
]>
<root>
<animal>
    <name>cow</name>
    <skin>&skin;</skin>
    <voice>&mooo;</voice>
</animal>
<animal>
    <name>sheep</name>
    <skin>&fur;</skin>
    <voice>&bee;</voice>
</animal>
<animal>
    <name>horse</name>
    <skin>&skin;</skin>
    <voice>&brr;</voice>
</animal>
<animal>
    <name>pig</name>
    <skin>&skin;</skin>
    <voice>&oink;</voice>
</animal>
<animal>
    <name>mockingbird</name>
    <skin>&feathers;</skin>
    <voice>&whistle;</voice>
</animal>
<animal>
    <name>eal</name>
    <skin>&feathers;</skin>
    <voice>&whistle;</voice>
</animal>
</root>

```

2. XS SCHEME

```

<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
<xs:element name="root">
    <xs:complexType>
    <xs:sequence>

```

```

        <xs:element name="animal" maxOccurs="unbounded">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="name" type="xs:string"/>
                    <xs:element name="voice" type="xs:string"/>
                    <xs:element name="skin" type="xs:string"/>
                </xs:sequence>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>

```

XSLT and CSS

1. XSLT

```

<?xml version='1.0' encoding='UTF-8'?>
<xsl:stylesheet version='1.0' xmlns:xsl='http://www.w3.org/1999/XSL/Transform'>
<xsl:template match='/'>
    <html>
    <body>
    <h2>Animals</h2>
    <table border='1'>
        <tr>
            <th style='text-align:left'>Name</th>
            <th style='text-align:left'>Skin</th>
            <th style='text-align:left'>Voice</th>
        </tr>
        <xsl:for-each select='root/animal'>
            <tr>
                <td class='name-vl'><xsl:value-of select='name' /></td>
                <td class='skin-vl'><xsl:value-of select='skin' /></td>
                <td class='voice-vl'><xsl:value-of select='voice' /></td>
            </tr>
        </xsl:for-each>
    </table>
    </body>
    </html>
</xsl:template>
</xsl:stylesheet>

```

2. CSS

```

td {
    background: #eecbb;
}
th {
    background: #ffff00;
}
.name-vl {
    color: #0f0;
}
.name-vl:hover {
    color: #00f;
}

```

```
.voice-vl {  
    color: #00f;  
}  
.voice-vl:hover {  
    color: #0f0;  
}  
.skin-vl {  
    color: #f00;  
}  
.skin-vl:hover {  
    color: #f0f;  
}
```