## **MODE 4201**

# Lab 3

Submitted On: October 14<sup>th</sup> 2022

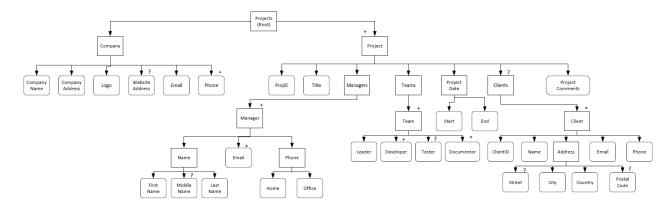
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#### XML Tree Diagram



### DTD (projects.dtd)

```
<!ELEMENT projects (company,project+)>

<!ELEMENT company (company_name, company_address, logo,
website_address?, email, phone+)>

<!ELEMENT company_name (#PCDATA)>

<!ELEMENT company_address (#PCDATA)>

<!ELEMENT logo (#PCDATA)>

<!ELEMENT website_address (#PCDATA)>

<!ELEMENT email (#PCDATA)>

<!ELEMENT email (#PCDATA)>

<!ELEMENT phone (#PCDATA)>

<!ELEMENT project (title, managers, teams, clients?, project_date,
project_comments)>

<!ATTLIST project projID ID #REQUIRED>

<!ELEMENT title (#PCDATA)>

<!ELEMENT managers (manager+)>

<!ELEMENT manager (name, email*, manager phone)>
```

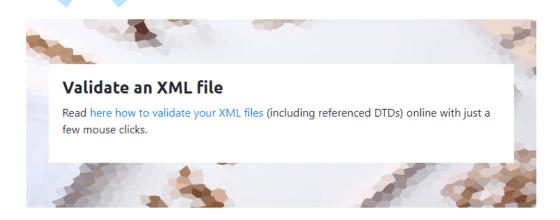
```
<!ELEMENT name (first name, middle name*, last name)>
<!ELEMENT first name (#PCDATA)>
<!ELEMENT middle name (#PCDATA)>
<!ELEMENT last name (#PCDATA)>
<!ELEMENT manager phone EMPTY>
<!ATTLIST manager phone office CDATA #REQUIRED home CDATA #REQUIRED>
<!ELEMENT teams (team+)>
<!ELEMENT team (leader, developer+, tester?, documentor*)>
<!ELEMENT leader (#PCDATA)>
<!ELEMENT developer (#PCDATA)>
<!ELEMENT tester (#PCDATA)>
<!ELEMENT documentor (#PCDATA)>
<!ELEMENT clients (client*)>
<!ELEMENT client (name, address, email, phone)>
<!ATTLIST client clientID ID #REQUIRED>
<!ELEMENT address (street?, city, country, postal code?)>
<!ELEMENT street (#PCDATA)>
<!ELEMENT city (#PCDATA)>
<!ELEMENT country (#PCDATA)>
<!ELEMENT postal code (#PCDATA)>
<!ELEMENT project_date EMPTY>
<!ATTLIST project date start CDATA #REQUIRED end CDATA #REQUIRED>
<!ELEMENT project comments (#PCDATA)>
XML Document (projects.xml)
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE projects SYSTEM "projects.dtd">
```

```
cts>
    <company>
        <company name>Company1/company name>
        <company address>1 Street</company address>
        <logo>company1_logo.png</logo>
        <website address>www.company1.com</website address>
        <email>name@company1.com</email>
        <phone>905-123-1234</phone>
    </company>
    project projID="P1">
        <title>Project 1</title>
        <managers>
            <manager>
                <name>
                    <first name>Jane</first name>
                    <middle name>A.</middle name>
                    <last name>Doe/last name>
                </name>
                <email>jane@company1.com</email>
                <manager phone office="111-222-3333" home="333-222-</pre>
1111"/>
            </manager>
        </managers>
        <teams>
            <team>
                <leader>John Doe</leader>
                <developer>Timmy Tom</developer>
                <tester>Matt Test</tester>
                <documentor>Ricky Bobby</documentor>
            </team>
```

```
</teams>
   <clients>
       <client clientID="C1">
           <name>
               <first_name>Client</first_name>
               <middle_name>Number</middle_name>
               <last name>1</last name>
           </name>
           <address>
               <street>2 Street</street>
               <city>1 city</city>
               <country>1 Country/country>
               <postal code>A1A 1A1</postal code>
           </address>
           <email>clientnumber1@gmail.com</email>
           <phone>777-888-9999</phone>
       </client>
   </clients>
   ct date start="2022-09-07" end="2022-12-16"/>
   comments
</project>
project projID="P2">
   <title>Project 1</title>
   <managers>
       <manager>
           <name>
               <first name>Jane</first name>
               <middle name>A.</middle name>
               <last name>Doe</last name>
           </name>
```

```
<email>jane@company1.com</email>
                <manager phone office="111-222-3333" home="333-222-</pre>
1111"/>
            </manager>
        </managers>
        <teams>
            <team>
                <leader>John Doe</leader>
                <developer>Timmy Tom</developer>
                <tester>Matt Test</tester>
                <documentor>Ricky Bobby</documentor>
            </team>
        </teams>
        <clients>
            <client clientID="C2">
                <name>
                    <first name>Client</first name>
                    <middle name>Number</middle name>
                    <last name>2</last name>
                </name>
                <address>
                    <street>4 Street</street>
                    <city>2 city</city>
                    <country>1 Country/country>
                    <postal code>B1B 1B1</postal code>
                </address>
                <email>clientnumber2@gmail.com</email>
                <phone>776-888-9999</phone>
            </client>
        </clients>
        ct date start="2022-09-07" end="2022-12-16"/>
```

#### **XML Validator Results**



#### No errors were found

The following files have been uploaded so far:

XML document:

projects.dtd 6

Click on any file name if you want to edit the file.

## References

W3Schools. (n.d, n.d n.d). *DTD Tutorial*. Retrieved from W3Schools: https://www.w3schools.com/xml/xml\_dtd\_intro.asp

XML Validation. (n.d, n.d n.d). *Validate an XML File*. Retrieved from XML Validation: https://www.xmlvalidation.com/index.php?id=1&L=0