XML

DT228/3

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XML

Extensible mark up language

e.g. xHTML

Doesn't DO anything

Used to create, structure and store data

Why are we looking at XML?

Android apps use XML to define:

- The screen layouts
- Various other bits and pieces e.g. manifest file

Example

```
<note>
    <to>Tove</to>
    <from>Jani</from>
     <heading>Reminder</heading>
     <body>Don't forget me this weekend!
     </body>
</note>
```

What's this piece of data about?
Who is it from? How do you know?

Example 2 – attributes

```
<person gender="female">
  <firstname>Ann</firstname>
  <lastname>Murphy</lastname>
</person>
```

Who is this person?
Note the attribute..

Example 3 –

Describe a textbox on a screen .
What can you say about it?
What do you need to describe ?

Name

Write your own XML for..

Sample Android XML

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:orientation="vertical" >
    <TextView android:id="@+id/text"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Hello, I am a TextView" />
    <Button android:id="@+id/button"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Hello, I am a Button" />

</LinearLayout>
```

More..

```xml
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical" >

        <ListView
            android:id="@+id/list"
            android:layout_height="wrap_content"
            android:layout_width="match_parent">
        </ListView>

</LinearLayout>
```

Design versus text editor views

Android studio:

Know their uses

Well formed XML

Grammar rules?

Tricky to spot

Errors are not allowed (unlike HTML!)

W3C XML validator

Rules

XML documents must have a root element
XML elements must have a closing tag
XML tags are case sensitive
XML elements must be properly nested
XML attribute values must be quoted

XML Elsewhere

A universal text based format for data sharing e.g.

- Documents
- Messaging/data transfer
- Mark up languages e.g. HTML

JSON is main "competitor"