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Points to remember

- ① $\langle \text{schema} \rangle$ is the root element of XML schema.

$\langle \text{xs:schema} \rangle$

$\langle / \text{xs:schema} \rangle$

uniform
resource-
identifier
default-
namespace

collection of names,
identified by URI
reference

used in XML document

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$\text{xmlns:xs} = "http://www.w3.org/2001/XMLSchema"$

adds
clarity to
XML document

indicates that the elements and data types used in schema come from above location. It also specifies that elements and data types that comes from "http://www.w3.org/2001/XMLSchema" namespace should be prefixed with xs

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~~xmlns:~~

<?xml version="1.0">

<xs:schema xmlns:xs="http://www.w3.org

<xs:element name="beginnersbook">

<xs:complexType>

<xs:sequence>

<xs:element name="to", type="xs:string"/>

<xs:element name="from" type="xs:string"/>

<xs:element name="subject" type="xs:string"/>

<xs:element name="message" type="xs:string"/>

<xs:sequence>

</xs:complexType>

namespace is defined by ④ "xmlns" attribute in start-tag of an element.
namespace declaration has syntax as `xmlns:prefix = "URI"`.

Data types supported by XML

{
integer
Boolean
String
date

elements can be:

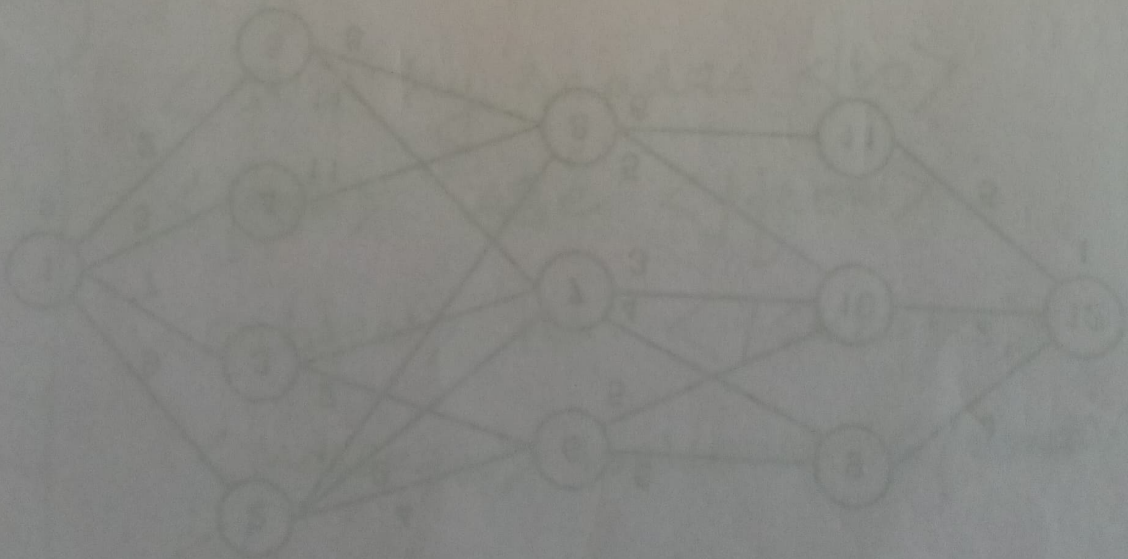
simple — contains text, not other elements
complex → contains attributes, other elements.

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section name/value pair and data format

Namespace — set of unique names

- ✓ collection of XML elements and attributes identified by an identifier
- ✓ used to avoid element name conflicts.
- ✓ gives semantics for a collection of tags and attributes.



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XML Schema (XML XSD)

✓ XML Schema is used to check whether the given XML document is well formed and valid.

✓ XML schema is having an extension of .xsd
↳ xml schema definition.

An example of XML schema

XML
file

```
<beginner book>
  <to> My readers </to>
  <from> ABC </from>
  <subject> Hi.. </subject>
  <message> welcome </xml message>
</beginner book>
```

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</xs:element>

</xs:schema>