

RDF Statements

The combination of a Resource, a Property, and a Property value forms a **Statement** (known as the **subject, predicate and object** of a Statement).

Let's look at some example statements to get a better understanding:

Statement: "The author of <http://www.w3schools.com/RDF> is Jan Egil Refsnes".

- The subject of the statement above is: <http://www.w3schools.com/RDF>
- The predicate is: author
- The object is: Jan Egil Refsnes

Statement: "The homepage of <http://www.w3schools.com/RDF> is <http://www.w3schools.com>".

- The subject of the statement above is: <http://www.w3schools.com/RDF>
- The predicate is: homepage
- The object is: <http://www.w3schools.com>

RDF Schema (RDFS)

RDF Schema (RDFS) is an extension to RDF.

RDF Schema and Application Classes

RDF describes resources with classes, properties, and values.

In addition, RDF also need a way to define application-specific classes and properties. Application-specific classes and properties must be defined using extensions to RDF

One such extension is RDF Schema.

RDF Schema (RDFS)

RDF Schema does not provide actual application-specific classes and properties.

Instead RDF Schema provides the framework to describe application-specific classes and properties

Classes in RDF Schema is much like classes in object oriented programming languages. This allows resources to be defined as instances of classes, and subclasses of classes.

RDFS Example

The following example demonstrates some of the RDFS facilities:

```
<?xml version="1.0"?>
<rdf:RDF
  xmlns:rdf= "http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
  xml:base= "http://www.animals.fake/animals#">
  <rdf:Description rdf:ID="animal">
    <rdf:type
      rdf:resource="http://www.w3.org/2000/01/rdf-schema#Class"/>
  </rdf:Description>
  <rdf:Description rdf:ID="horse">
    <rdf:type
      rdf:resource="http://www.w3.org/2000/01/rdf-schema#Class"/>
    <rdfs:subClassOf rdf:resource="#animal"/>
  </rdf:Description>
</rdf:RDF>
```

In the example above, the resource "horse" is a subclass of the class "animal".

Example Abbreviated

Since an RDFS class is an RDF resource we can abbreviate the example above by using `rdfs:Class` instead of `rdf:Description`, and drop the `rdf:type` information:

```
<?xml version="1.0"?>
<rdf:RDF
  xmlns:rdf= "http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
  xml:base= "http://www.animals.fake/animals#">
  <rdfs:Class rdf:ID="animal" />
  <rdfs:Class rdf:ID="horse">
    <rdfs:subClassOf rdf:resource="#animal"/>
  </rdfs:Class>
</rdf:RDF>
```

That's it!

RDF Dublin Core Metadata Initiative

The Dublin Core

RDF is metadata (data about data). RDF is used to describe information resources.

The Dublin Core is a set of predefined properties for describing documents.

The first Dublin Core properties were defined at the **Metadata Workshop in Dublin, Ohio** in 1995 and is currently maintained by the [Dublin Core Metadata Initiative](#).

Contributor	An entity responsible for making contributions to the content of the resource
Coverage	The extent or scope of the content of the resource
Creator	An entity primarily responsible for making the content of the resource
Format	The physical or digital manifestation of the resource
Date	A date of an event in the lifecycle of the resource
Description	An account of the content of the resource
Identifier	An unambiguous reference to the resource within a given context
Language	A language of the intellectual content of the resource
Publisher	An entity responsible for making the resource available
Relation	A reference to a related resource
Rights	Information about rights held in and over the resource
Source	A Reference to a resource from which the present resource is derived
Subject	A topic of the content of the resource
Title	A name given to the resource
Type	The nature or genre of the content of the resource

A quick look at the table above indicates that RDF is ideal for representing Dublin Core information.

RDF Example

```
<?xml version="1.0"?>
<rdf:RDF
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:dc="http://purl.org/dc/elements/1.1/">
  <rdf:Description rdf:about="http://www.w3schools.com">
    <dc:title>D-Lib Program</dc:title>
    <dc:description>W3Schools - Free tutorials</dc:description>
    <dc:publisher>Refsnes Data as</dc:publisher>
    <dc:date>1999-09-01</dc:date>
    <dc:type>Web Development</dc:type>
    <dc:format>text/html</dc:format>
    <dc:language>en</dc:language>
  </rdf:Description>
</rdf:RDF>
```

RDF Validation Service: <http://www.w3.org/RDF/Validator/>

<Review>

I. HTML Example

<html>

<head>

<title> 봄비 </title>

<link rel = "schema.DC" href = "http://purl.org/DC/elements/1.0/">

<meta name = "DC.Title" content = "봄비">

<meta name = "DC.Creator" content = "박인수">

<meta name = "DC.Type" content = "가요">

<meta name = "DC.Date" content = "1984">

<meta name = "DC.Format" content = "text/avi">

<meta name = "DC.Language" content = "한국어">

</head>

<body>

<script>

document.write("<h2>봄비/박인수</h2>")

</script>

<pre>

이슬비 내리는 길을 걸으며 봄비에 젖어서 길을 걸으며

나혼자 쓸쓸히 빗방울 소리에 마음을 달래도

외로운 가슴을 달랠 길 없네 한없이 적시는 내 눈위에는

빗방울 떨어져 눈물이 되었나 한없이 흐르네

봄비 나를 올려주는 봄비 언제까지 내리려나

마음마저 올려주네 봄비

외로운 가슴을 달랠 길 없네 한없이 적시는 내 눈위에는

```
        빗방울 떨어져 눈물이 되었나 한없이 흐르네
        봄비 나를 올려주는 봄비 언제까지 내리려나
        마음마저 올려주네 봄비
외로운 가슴을 달랠 길 없네 한없이 적시는 내 눈위에는
빗방울 떨어져 눈물이 되었나 한없이 흐르네
</pre>
```

```
<hr>
<a href="https://youtu.be/66kWj6TId2U">노래듣기</a>
<hr>
<p>
<p>

<h4>JavaScript로 알아보는 오늘 날짜와 시간은?</h4>
<p>아래의 Date 버튼을 누르세요~</p>
    <button type="button" onclick="myFunction()">Date</button>
    <p id="demo"></p>
    <script>
        function myFunction() {
            document.getElementById("demo").innerHTML = Date();
        }
    </script>

</body>

</html>
```

II. XML Example

```
<?xml version="1.0"?>

<dcx:descriptionSet
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:dcx="http://purl.org/dc/xml/">

  <dcx:description dcx:resourceURI="http://dublincore.org/pages/home">
    <dc:title>
      <dcx:valueString>DCMI Home Page</dcx:valueString>
    </dc:title>
    <dc:publisher>
```

```
        <dcx:valueString>Dublin Core Metadata Initiative</dcx:valueString>
    </dc:publisher>
</dcx:description>

</dcx:descriptionSet>
```

끝!!