

# Lesson 8

## Simple Object Access Protocol (SOAP)

# Applications Need to Exchange Objects

- Applications may be using different languages and platforms
- SOAP (Simple Object Access): A W3C approved open source protocol.  
(<http://www.w3schools.com/soap/default.asp> ).

# SOAP

- Facilitates for exchange of objects between the Applications using the XML
- Facilitates access to a web Service
- Specifies the formats and a way of sending messages
- Usage is independent of Application language and platform (OS and hardware).

# SOAP

- Extensible
- Also used for APIs for the web services and SOA (service-oriented architecture).

# SOAP Version 1.2 second edition Specifications

Part 0: Primer

Part 1: A Messaging Framework

Part 2: Adjuncts

# SOAP Version 1.2 provisions

- Assertions
- Test Collection
- XML-binary Optimized Packaging
- SOAP Message Transmission Optimization Mechanism
- Resource Representation
- SOAP Header Block.

# Example

- Gateway sends requests for the weather service response and receives the weather message from a weatherMsgService daily
- A SOAP request or response communicate between two Applications

# Example

- Gateway sends SOAP object weatherMsgG from [www.weatherMsgG.com](http://www.weatherMsgG.com) and Weather service weatherMsgService sends SOAP objects using [www.weatherMsgService.com](http://www.weatherMsgService.com)

# Summary

We learnt

- SOAP object exchanges method between web client and web server or service
- SOAP: an XML based W3C standard

# End of Lesson 8 on Simple Object Access Protocol (SOAP)