RESTFul Services / Rest APIs as a Spring Boot Developer -- Class 2
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WebServices ==> SOAP BASED Webservices
RESTFul services ==>REST API;s

==>If we devleop a webservice using JAX-RPC or JAX-WS then that webservice is called
as "SOAP Based WebService".
SOAP(Simple Object Access Protocol) WebService

In the world of webservices we have 2 parties
a. Provider => Application which will be providing buisness services to otherapplications is called as "Provider application".

b. Consumer => Application which is consuming the services from the other application is called as "Consumer application".

=> Contract stands for WSDL
=> Web Services Description language
=> WSDL is a special XML which describes how provider is providing buisness services to consumers.
=> Contract First Approach means WSDL file will be created first then Development will be started.
=> Contract Last Approach means we will prepare the service first and then WSDL file will created.

WSDL -> url,input for provider,output for provider,how to access the services will
be documented in the file.

Once provider development is completed, provider will share WSDL share to consumer through email,sharepoint, UDDI(Universal Description Discovery Integration)

Note:Key players when we build webservices
1. Provider
2. WSDL : WebServices Description Language
3. UDDI : Universal Discovery Description Language
4. Consumer
5. SOAP : Simple Object Access Protocol

SOAP based webservices are not really 100% interoperable and adoptable.
SOAP based webservices wont support for JSON/It supports only XML.
SOAP based webservices are not easily adoptable(dependent on XML).

The above mentioned problems are identified by a person called "Roy Fielding".

He compared SOAP webservices with Internet Services(www).

RoyFielding found 5 principles those are called as "REST Architecture principles".

Challenges of SOAP webservices are resolved in RESTFul Services, SOAP is specification based where as ResTful services are Architecture principles based.
REST Architecture
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2 Actors are involved here
a. Resource

It provides buisness services to other applications.

b. Client

It access buisness services from other applications.

Rest Architecture Principles

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1. Unique Address
2. Uniform Constraint interfaces
3. Media Representation
4. Communication Stateless
5. Hateos