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Assignment No. 5

SOAP & REST

* Problem statement :

Webservice - SOAP based : Implement a SOAP based Arithmetic web service which will accept a two values and operation to be performed (a, b, op) & return operation's result to a web based service requestor. (The result of "operation is ....).
Implement the same using RESTful webservices.

* Objectives :
To learn Webservices that and methods to consume them
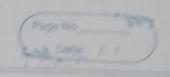
* Theory :

Web service :

A web service is a method of communication between two applications or electronic devices over the www.

Types of services :

i> SOAP (Simple Object Access Protocol)

It is an XML based industry standard protocol for designing and developing web services. It is platform and language independent. So our server can be

in Java and client can be on NET, PHP etc.

2) REST (Representational State Transfer)

It is an architectural style for developing web services. It is getting more popularity recently because it has a small learning curve when compared to SOAP. Resources are core concepts of REST web service and they are uniquely identified by their URI.

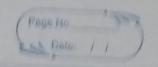Web Service Architecture

1) Service Provider

2) Service Requestor

3) Service Registry

Designing the solution.

Java provides its own API to create SOAP & REST services

1) JAX-WS • It stands for Java API for XML web services services. It uses XML based Java API to build web services server and client applications

2) JAX-RS - JAVA API for REST web services. It uses annotations to simplify the development

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and deployment of web services.

* Conclusion :

Web services SOAP & REST were studied. A web service was created and a distributed application was designed to consume the service.