Create a simple web service and write any distributed application to consume the web service.

* [NetBeans 8.2 With Glassfish 4.1.1](https://drive.google.com/file/d/1Cg3Tn8ALQlrFyEGO3e6lH4h8cvECDylu/view?usp=sharing)
* Elements
  + Service
  + Servlet
  + Client
* Client -> application run -> client gives input ->goes to servlet -> servlet communicate with server -> server query the input -> output shown on client side
* Web service
  + Method of communication between 2 electronic devices
  + E.g) SOAP , REST
  + Service which we want to host on web
  + SOAP- SIMPLE OBJECT ACCESS PROTOCOL
    - Messaging protocol specification for exchanging structured information in the implementation of web services in computer networks
    - Function driven – data availability is through services
    - XML based
    - Every operation the service provides is explicitly defined along with the XML structure of request and response for that operation
    - Request response
    - Built in error handling
    - Can be sent over any Http , SMTP, TCP protocol
  + REST – representational object transfer
    - API
    - Built on rest architecture
    - Data driven
    - Use JSON ,XML,CSV,CSS,
    - No built in error handling
    - http based
    - Exposes API from your application in a secure , uniform , stateless manner to calling client
    - Calling client can perform predefined operation using restful services
    - GET,POST,PUT,DELETE
* Views in NetBeans
  + Window -> output window
  + File -> new project ->Java Web->web application->next-> put project name -> next->Server -> GlassFish Server 4.1.1->Java EE version -> 7 -> next ->No framework used
  + Right click name of project -> new -> web service -> put name MyCalculatorWebService -> put package name com.myservice -> click on create web service from scratch ->finish
  + Project- > web services -> right click on MyCalculatorWebService -> Add operation or click on design on MyCalculatorWebService -> Add operation
  + Change the methods created earlier as per need
  + Right click on project -> build
  + Right click on project -> deploy
  + Right click on MyCalculatorWebService -> Test Webservice
  + Create a new WebService for Client -> follow above steps -> create project
  + Window -> IDE tools -> pallete
  + Drag and drop form from palette in index file which is there in web pages -> action = CalculatorServlet ->Select Get ->click on OK
  + Similarly add inputs from palette
  + Add button from palette
  + Right click on client -> new -> WebServiceClient -> Browse in project -> select MyCalculatorWebService -> OK -> finish -> new Webservice reference folder will be created in client
  + Right click on client -> new -> Servelet -> put name same as given in form -> next -> click on checkbox add information to deployment descriptor -> finish -> servlet will be created in source packages
  + We have to add methods in servlet -> drag methods from web service reference -> MyCalculatorWebService in client in your CalculatorServlet.java file
  + Now we have to get inputs from client so make changes in ProcessRequest
    - double num1,num2;
    - num1=Double.parseDouble(request.getParameter(“name of param given in form ”));
    - num2=…………
  + make changes in body tag of ProcessRequest
    - out.println(“<h1>Addition is ” + addition(num1,num2) + “</h1>”);
  + right click on client -> clean and build
  + client -> web pages -> index.html -> right click on file and run