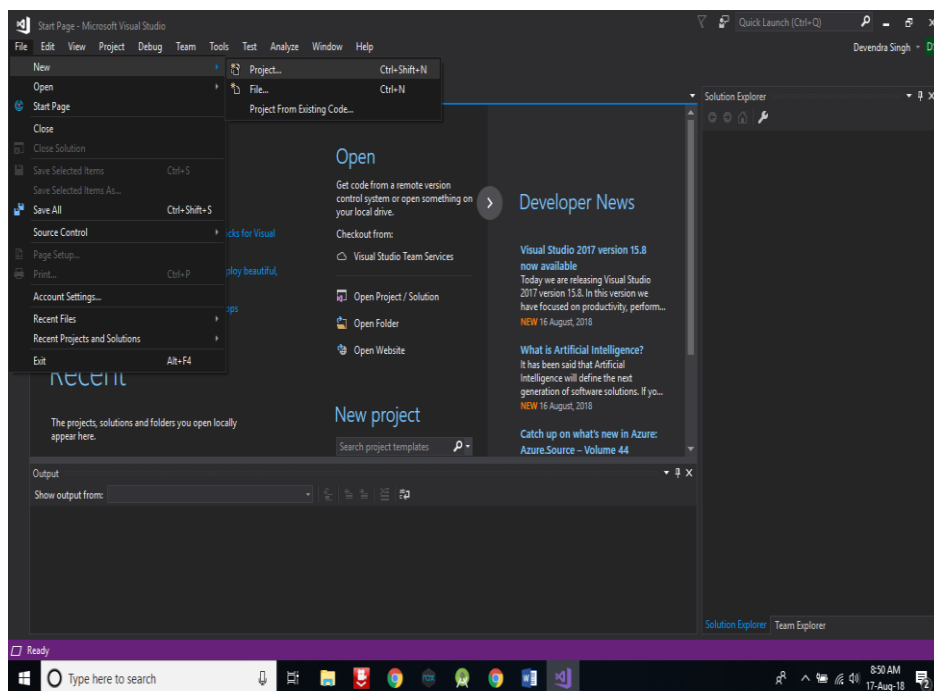**Date: __/__/2020**

Practical No . 6

Aim : Develop client which consumes web services developed in different platform.

Requirement:
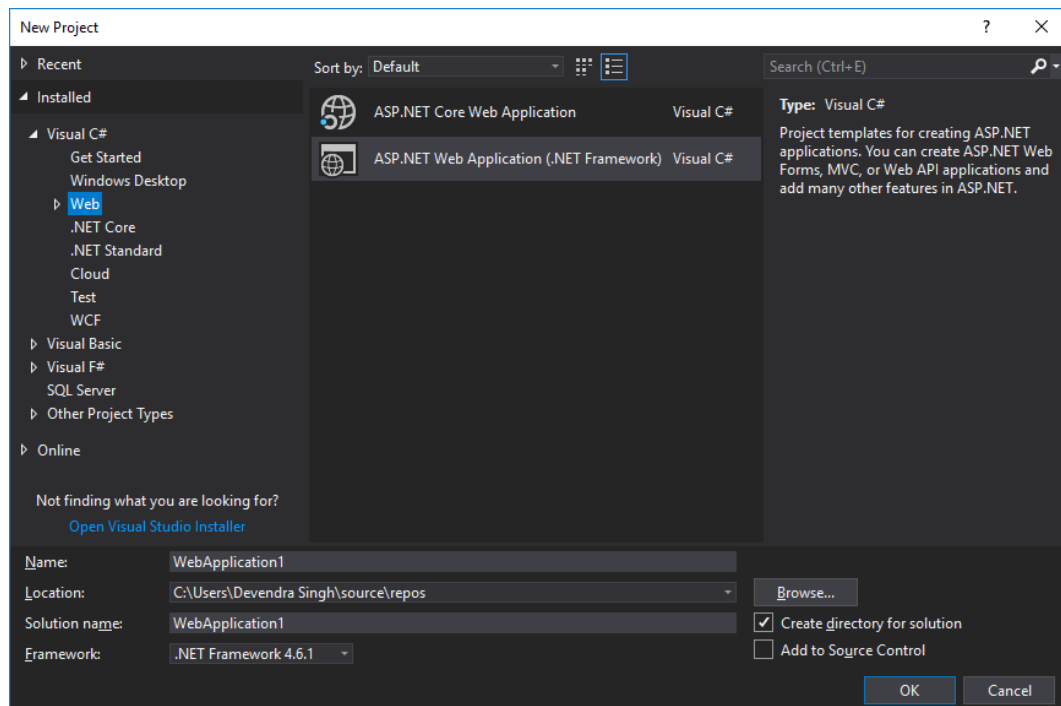
1. Visual Studio Community 2013
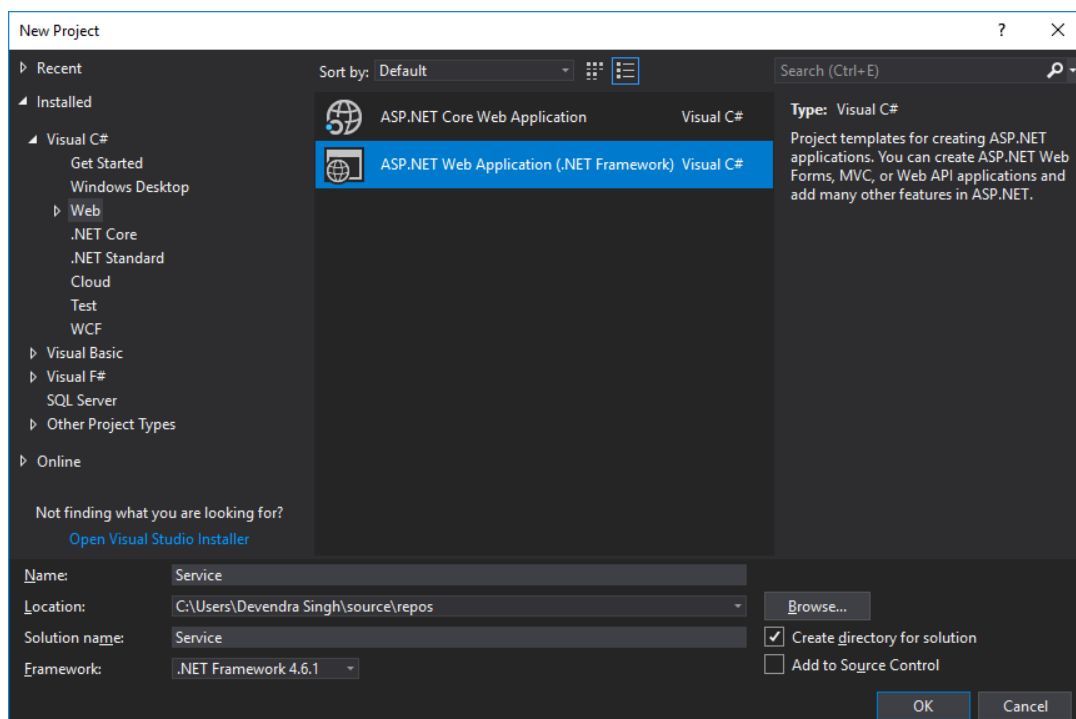2. Netbeans 8.0.2

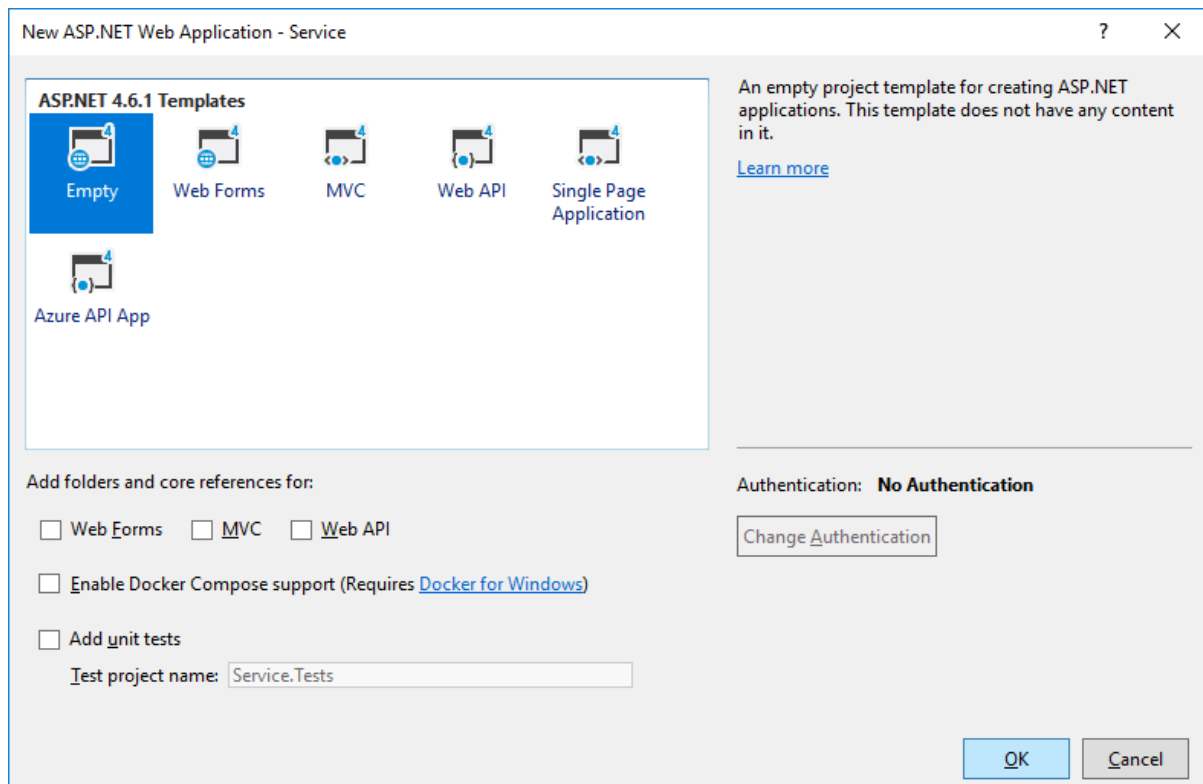**1. Open Visual Studio IDE and click on File.**

File -> New ->Project
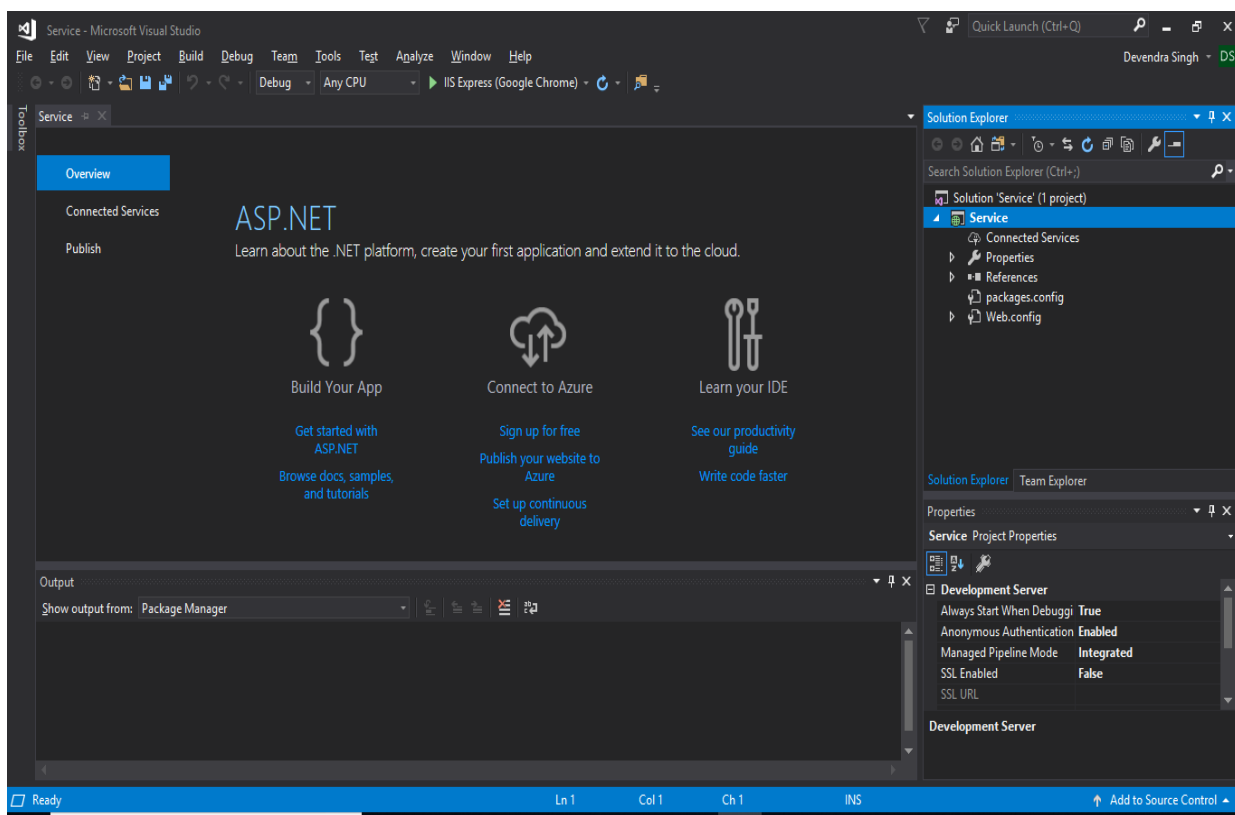

 2. Click on Web.

3. Select ASP.NET Web Application and give **Name** as **Service**. After that **click on OK** button.
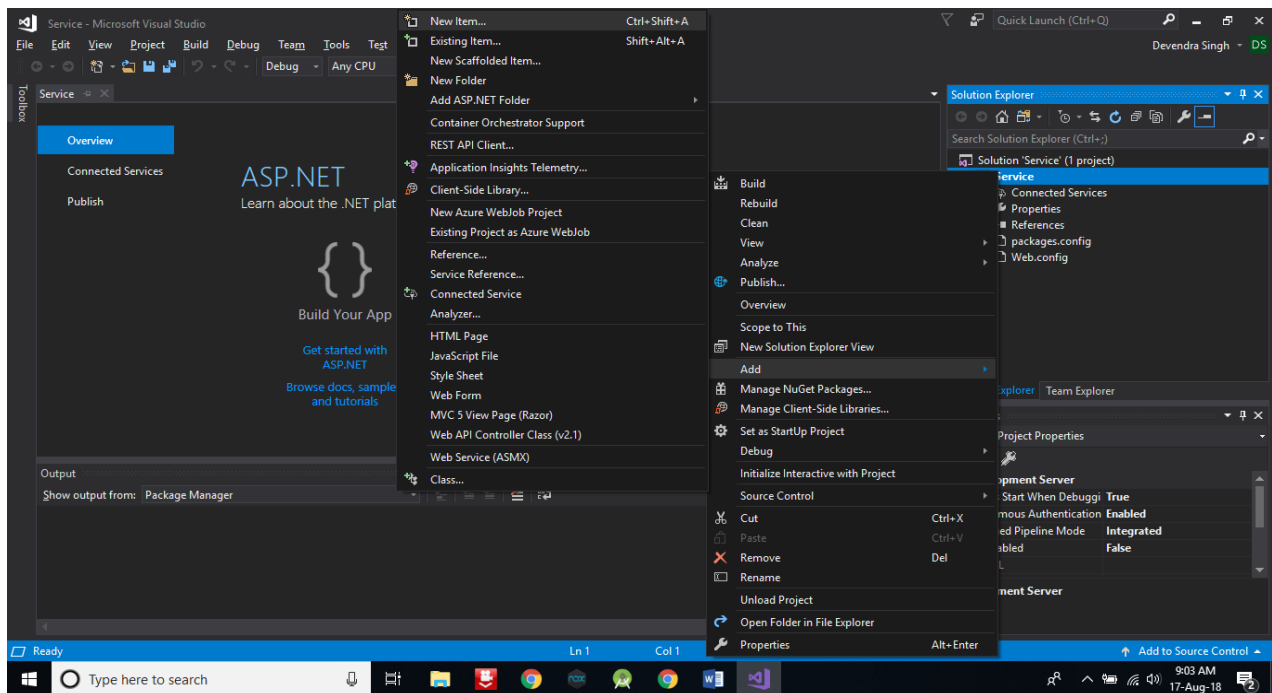

4. Select Empty and **click on OK** button.

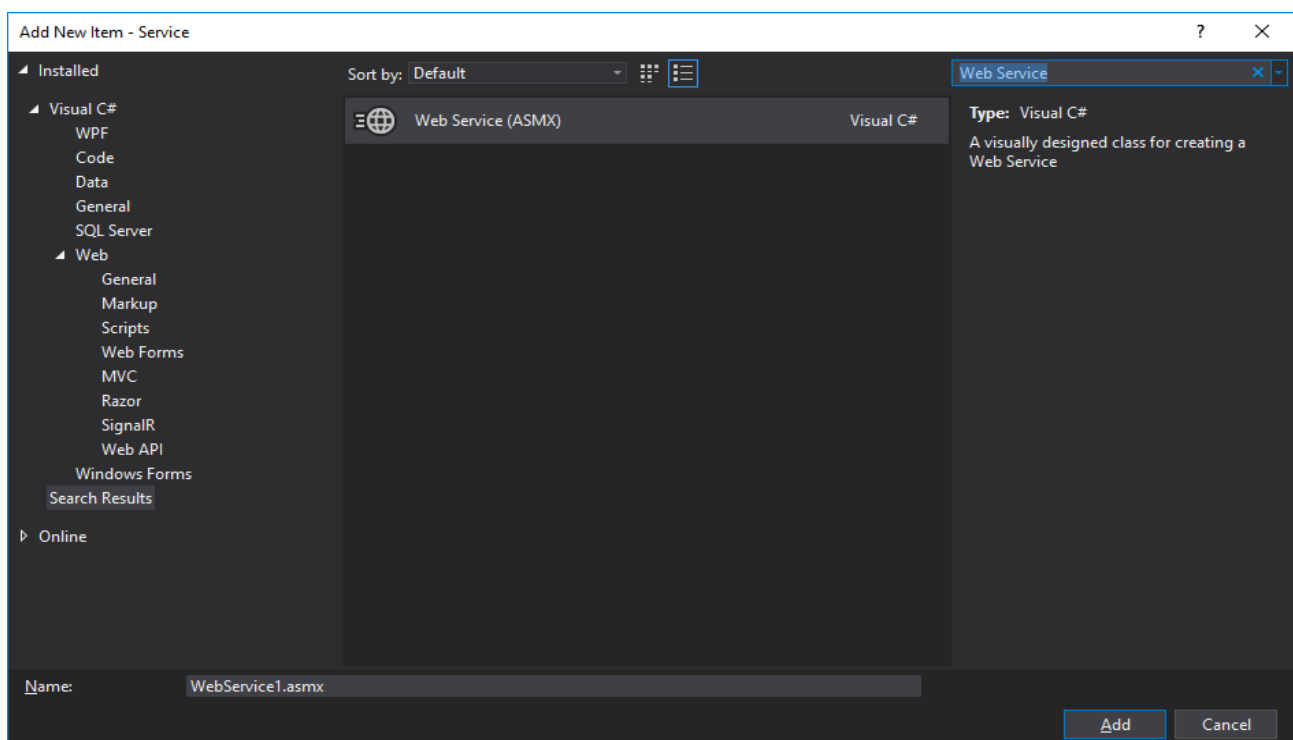**5.** Now you can see, on right side in Solution Explorer Service project is created.
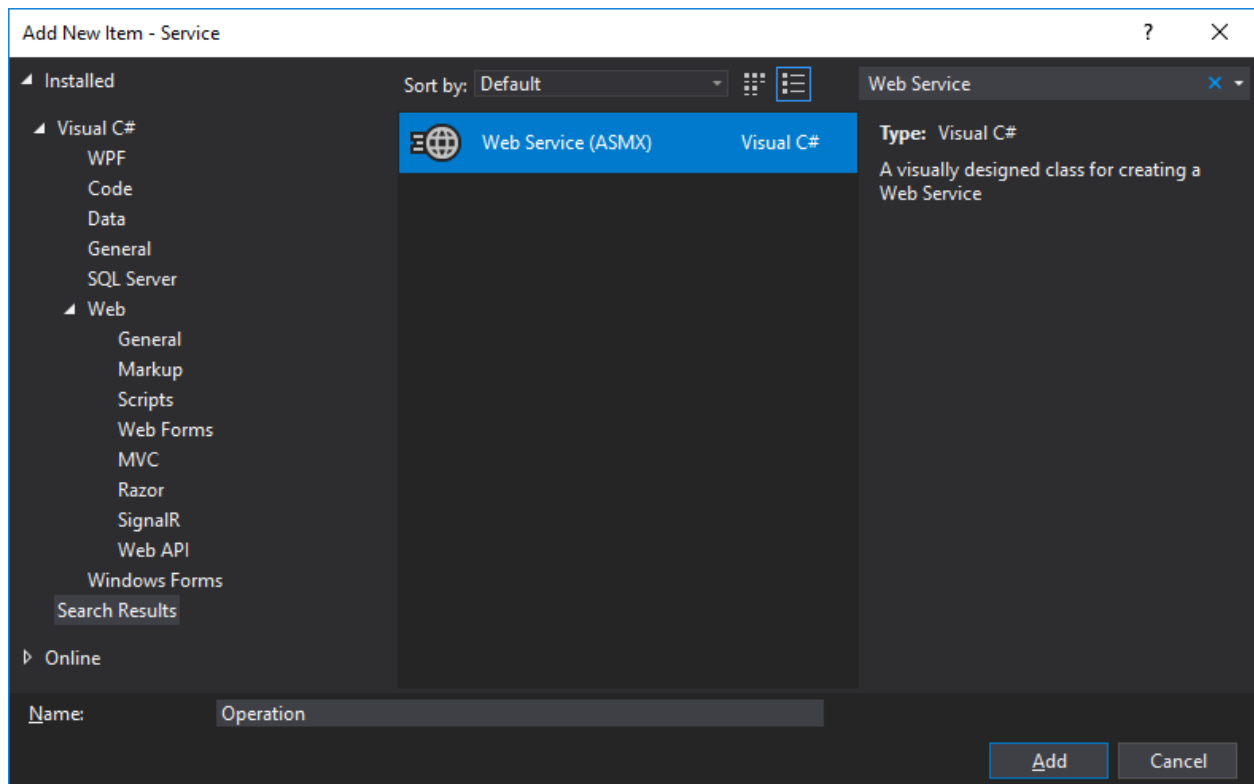

6. Right click on Service -> Add -> New Item.

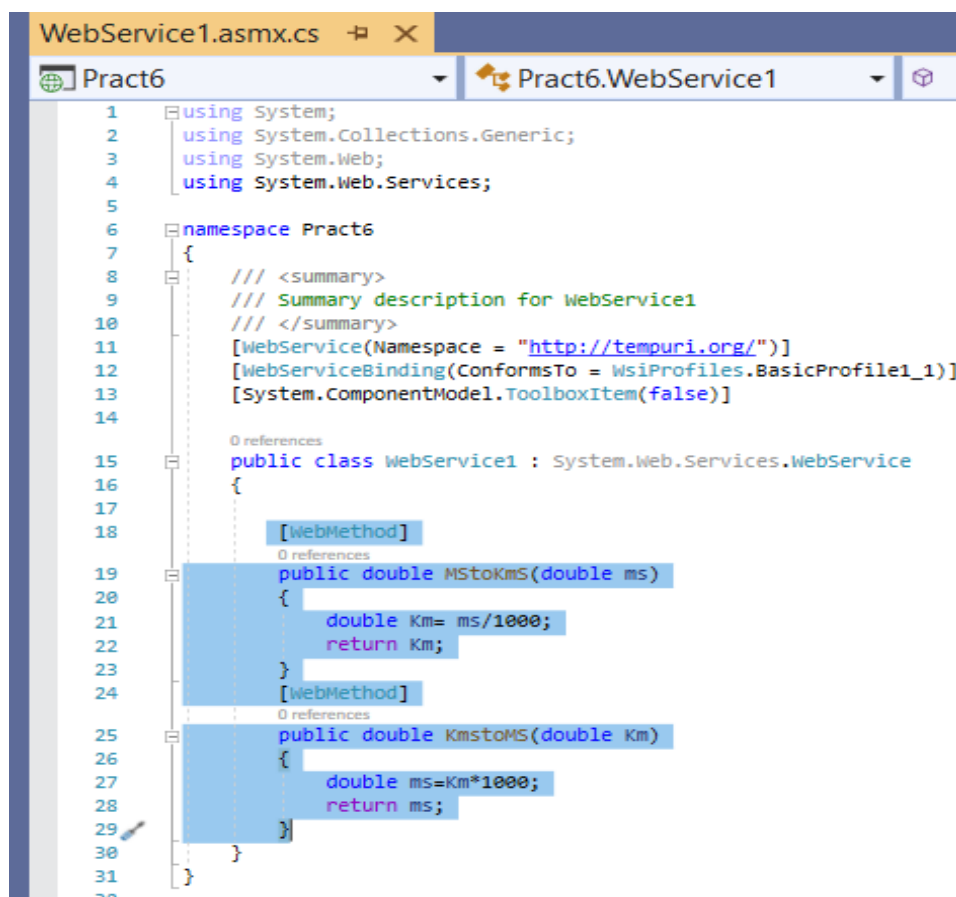7. **Search for Web Service**.

8. **Select Web Service** and **give Name** as **Operation**. After then **click on Add** button.

9. After click on Add button, Operaion.asmx.cs file will be automatically open otherwise open it from Solution Explorer and

After that press Ctrl+S to save the methods. Actually we are creating two methods for Web Service. One is for addition of two numbers and second one is for multiplication of two numbers.

10.   Now **run the project** by **click on Green arrow button below the Window menu.**
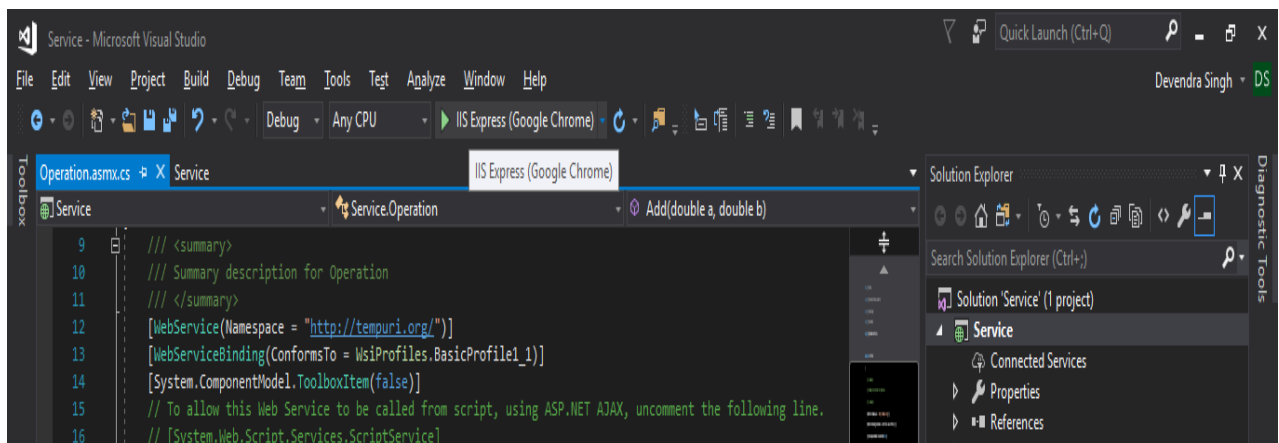
11.   A window will open in browser and that is our web service.
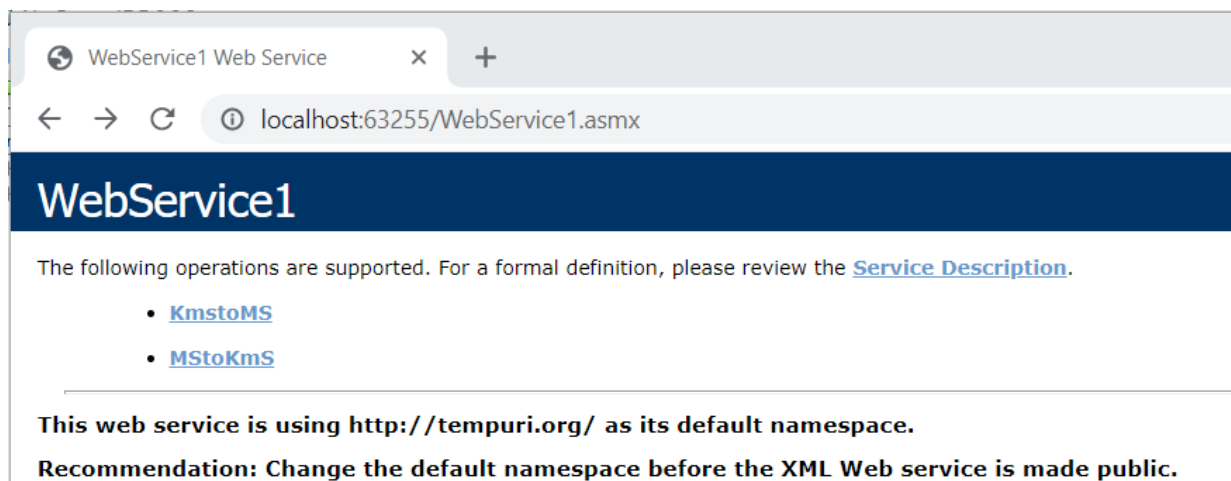
12.   You can check services by click on Add or Multi option. But we don't need this.

13.   Now **click on Service Description** option.

14.   Now a new window will open. **Select the link and copy it**. **We will use this link in NetBeans to consume these services**.

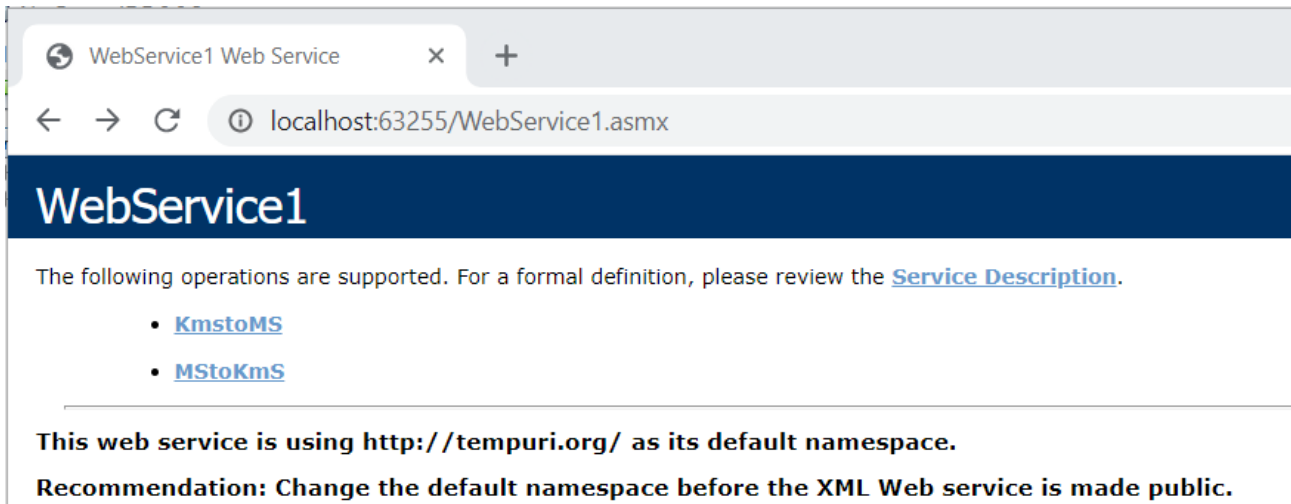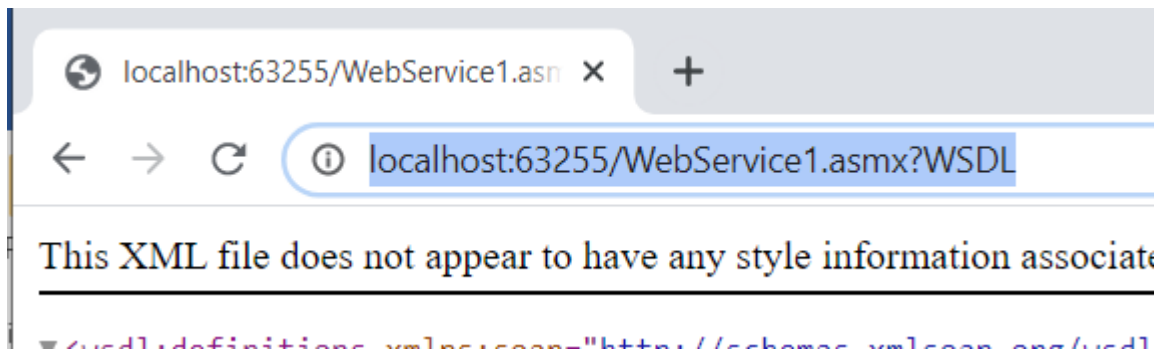15.   **Don't close Visual Studio and browser, just minimize it otherwise server will stop.** **But save the link anywhere**, so that we can use it later.

16.   Now **open NetBeans**.

17.   **Create a Web Application with any name . Next -> Finish.**

18.   Now **create a Web Service Client**.
Right click on ServiceClient -> New -> Other.
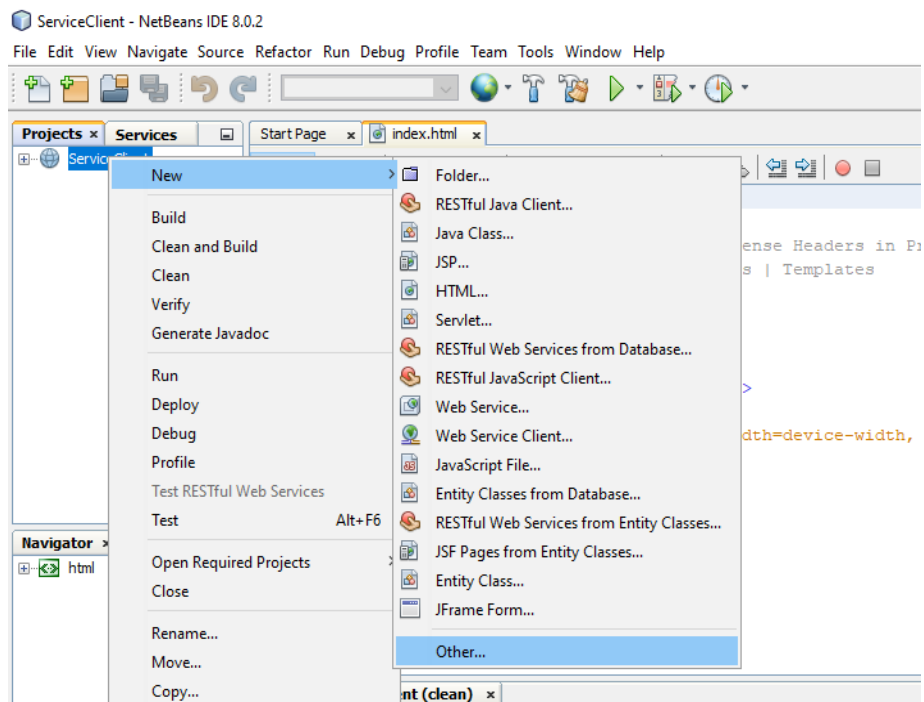
19. Now **select Web Services in Categories** section.
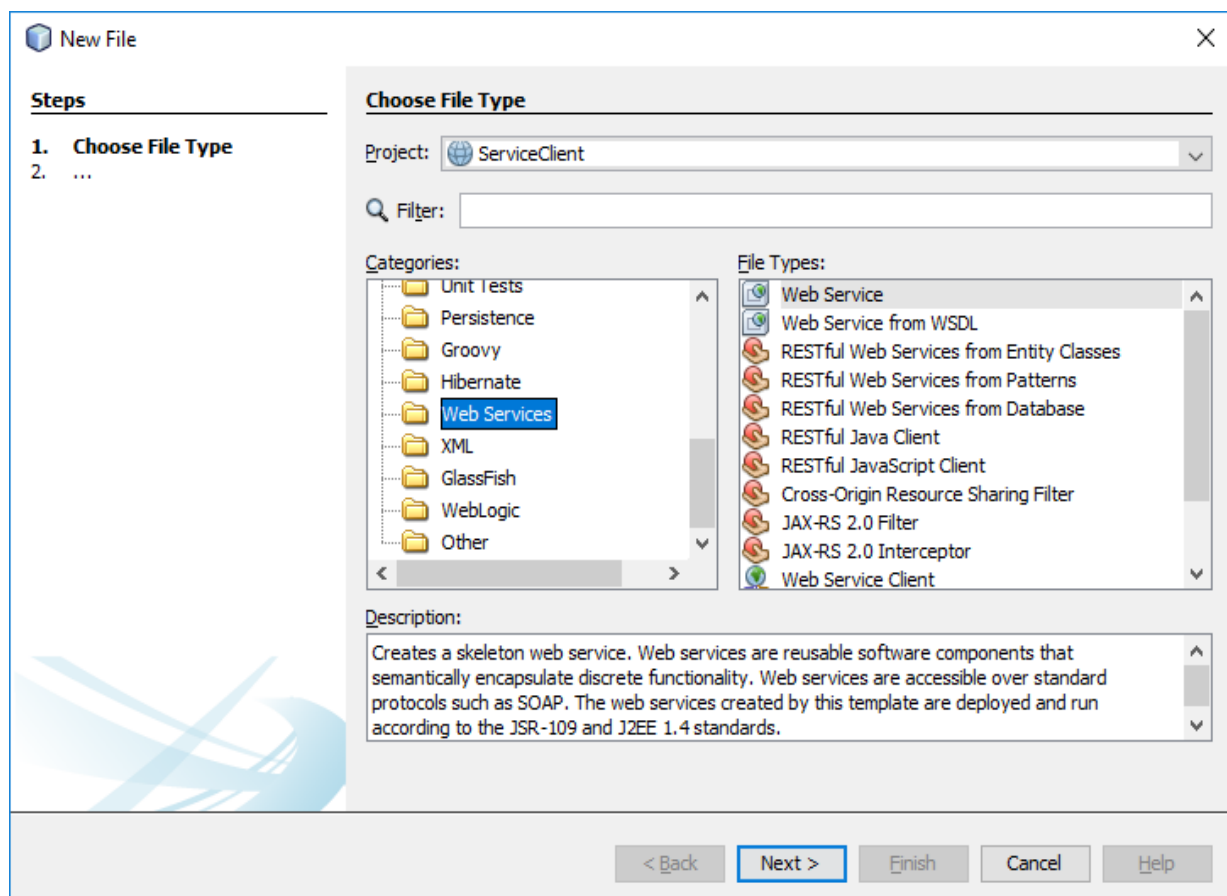
20. **Select Web Service Client in File Types** and **Click on Next** button.
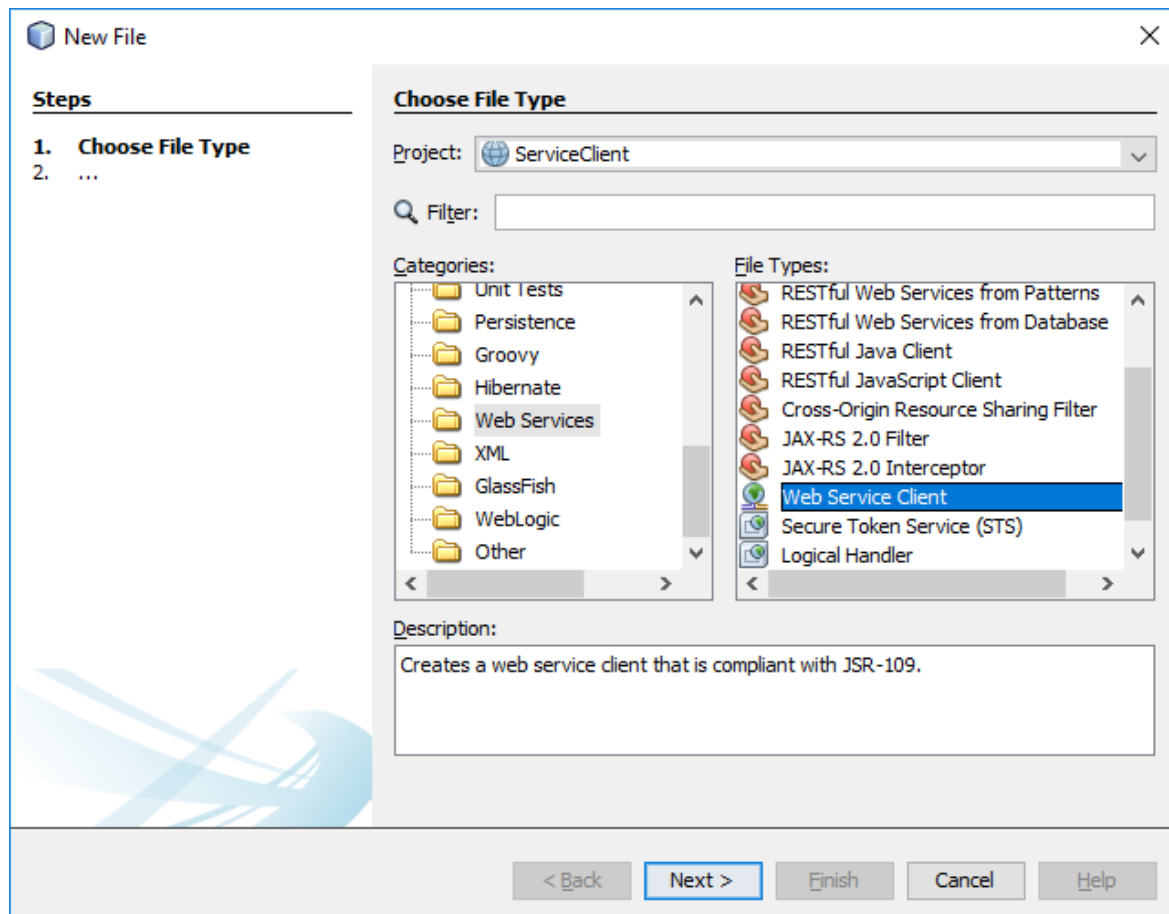
21. Select WSDL URL and paste the link that you have copied from browser on run of Visual Studio **enter package name com.dd**. After that **click on Finish** button.
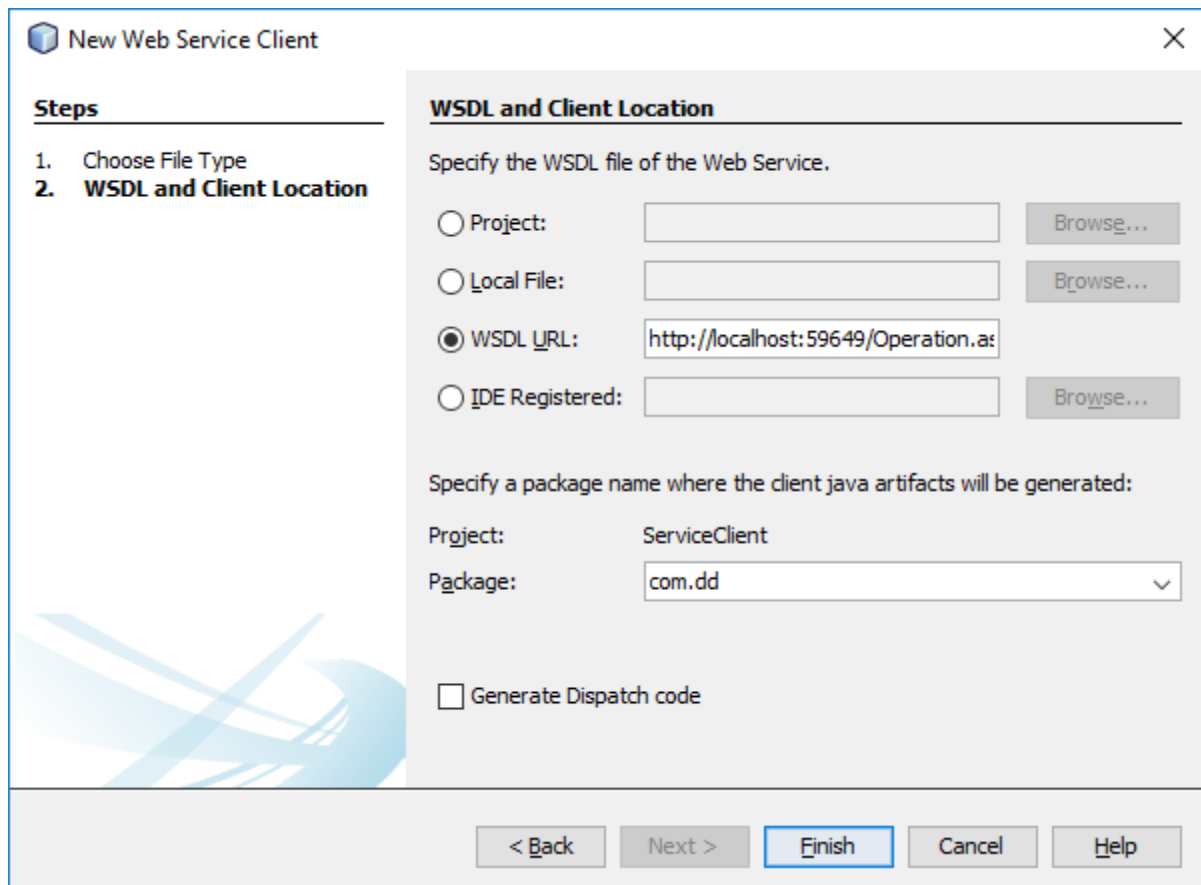
22. As you can see, we got both the service methods i.e.km/s to m/s and m/s to km/s . But in this practical I'm going to use only one service method. You have to do for both.
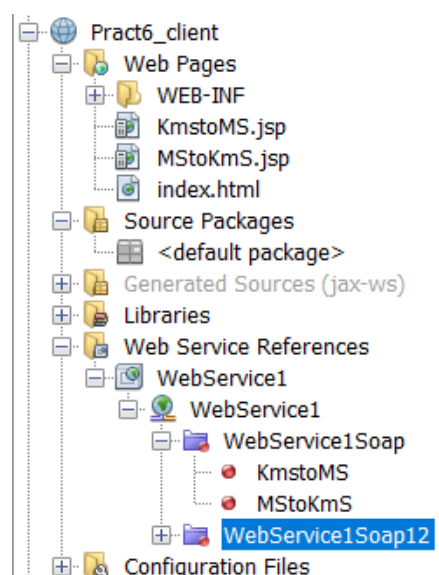
23. Now create a JSP page. **Right click on ServiceClient -> New -> Other**
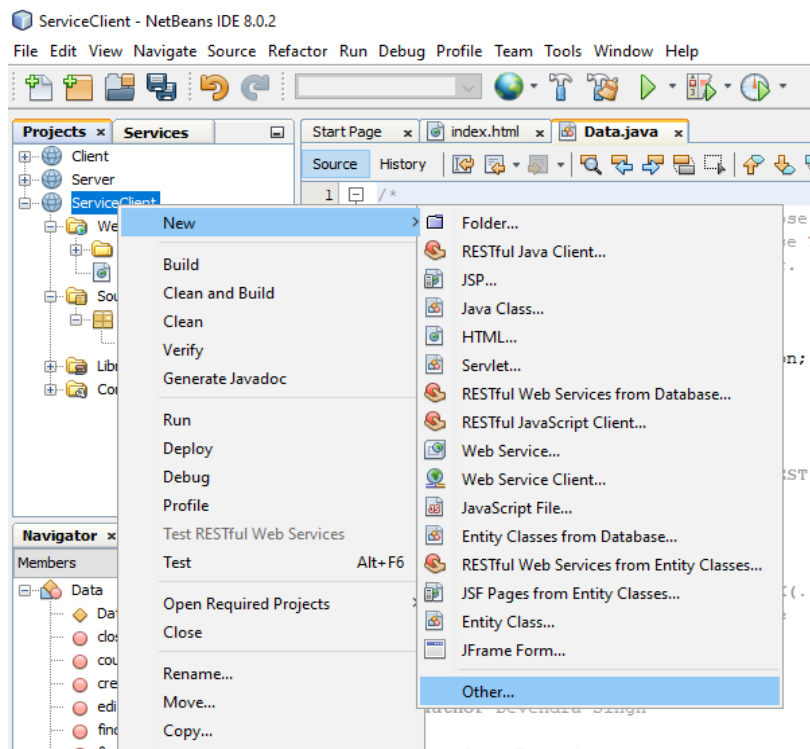
24. **Select Web in Categories section -> Select JSP and click on Next button.**
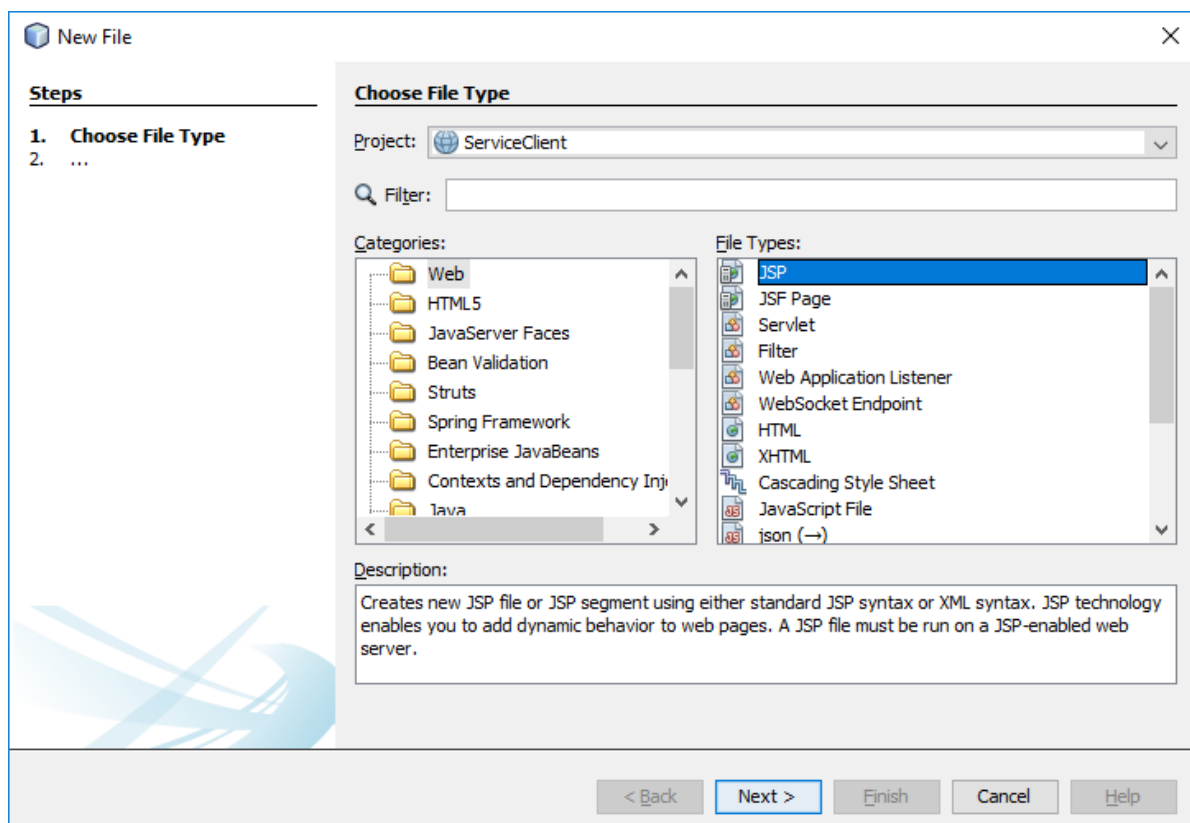
25. **Enter File Name** and **click on Finish button**.

26. **In .jsp file delete the selected part in body tag**, because we don't need this.

```
7    <%@page contentType="text/html" pageEncoding="UTF-8"%>
8    <!DOCTYPE html>
9    <html>
10       <head>
11          <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
12          <title>JSP Page</title>
13       </head>
14       <body>
         <h1>Hello World!</h1>
16       </body>
17    </html>
18
```

27. **Right click between body tag** and **select Call Web Service Operation**.
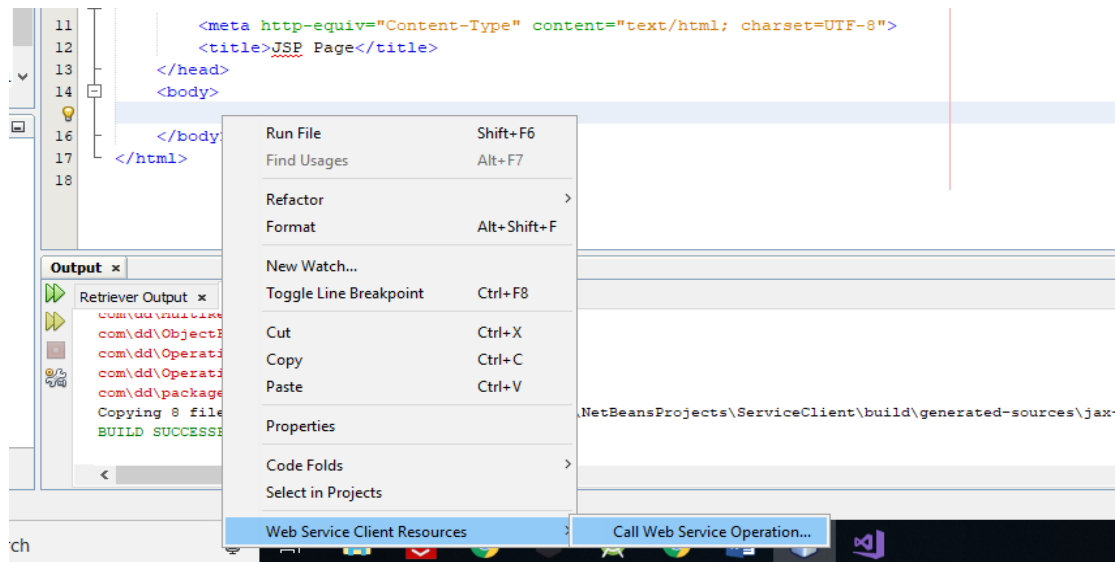
28. **Expand and select Add**. After select, **click on OK** button.
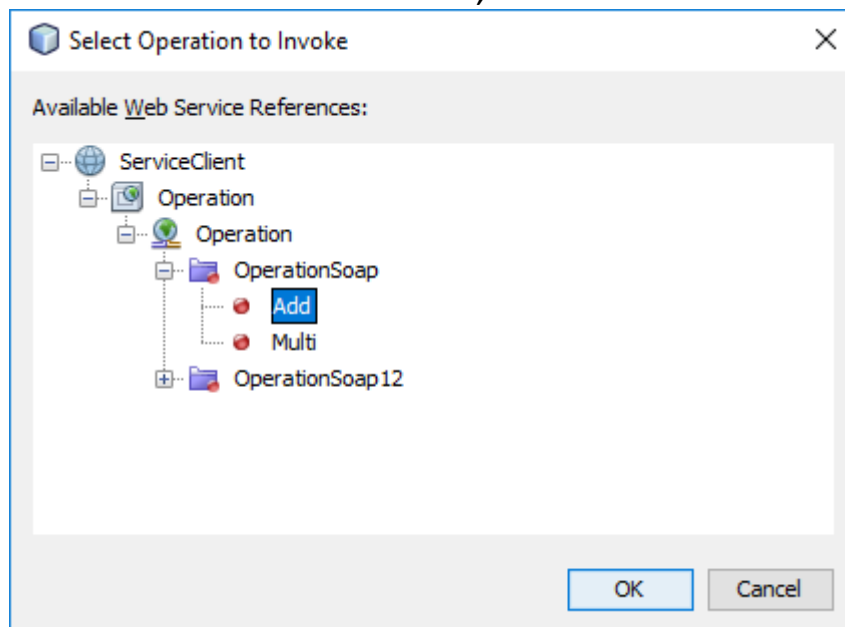
29. Now **add the following code outside of try block**.

.jsp files

```
try {
    org.tempuri.WebService1 service = new org.tempuri.WebService1();
    org.tempuri.WebService1Soap port = service.getWebService1Soap();
    // TODO initialize WS operation arguments here
    double a = num3;
    // TODO process result here
    double result = port.kmstoMS(a);
    out.println("Result = "+result +" m/s ");
} catch (Exception ex) {
    // TODO handle custom exceptions here

}
%>
```

```
try {
    org.tempuri.WebServicel service = new org.tempuri.WebServicel();
    org.tempuri.WebServicelSoap port = service.getWebServicelSoap();
    // TODO initialize WS operation arguments here
    double a = num3;

    // TODO process result here
    double result = port.mStoKmS(a);
    out.println("Result = "+result +" Km/s");
} catch (Exception ex) {
    // TODO handle custom exceptions here

}
```

30. Now **pass num3 to a variable respectively**. After that **press Ctrl+S** to save this code.

.jsp files :

```
<%-- start web service invocation --%><hr/>
<%

        double num3=Double.parseDouble(request.getParameter("txtl"));

 try {
    org.tempuri.WebServicel service = new org.tempuri.WebServicel();
    org.tempuri.WebServicelSoap port = service.getWebServicelSoap();
     // TODO initialize WS operation arguments here
    double a = num3;
    // TODO process result here
    double result = port.kmstoMS(a);
    out.println("Result = "+result +" m/s ");
} catch (Exception ex) {
    // TODO handle custom exceptions here

}
%>
```

```
<%-- start web service invocation --%><hr/>
<%
     double num3=Double.parseDouble(request.getParameter("txt1"));

  try {
     org.tempuri.WebService1 service = new org.tempuri.WebService1();
     org.tempuri.WebService1Soap port = service.getWebService1Soap();
       // TODO initialize WS operation arguments here
     double a = num3;

     // TODO process result here
     double result = port.mStoKmS(a);
     out.println("Result = "+result +" Km/s");
  } catch (Exception ex) {
     // TODO handle custom exceptions here

  }
%>
```
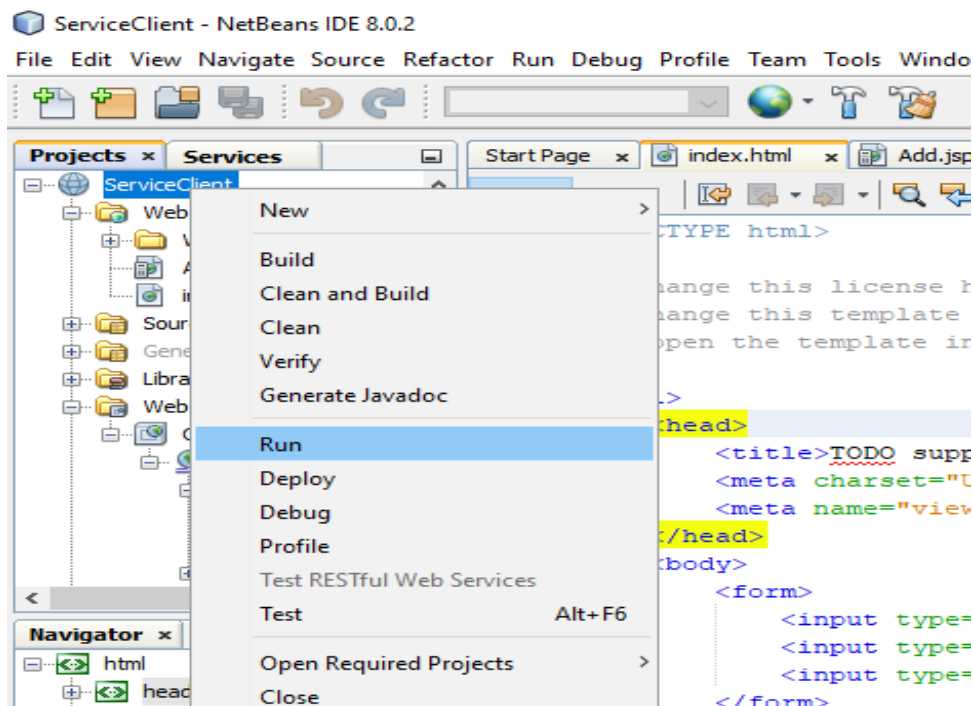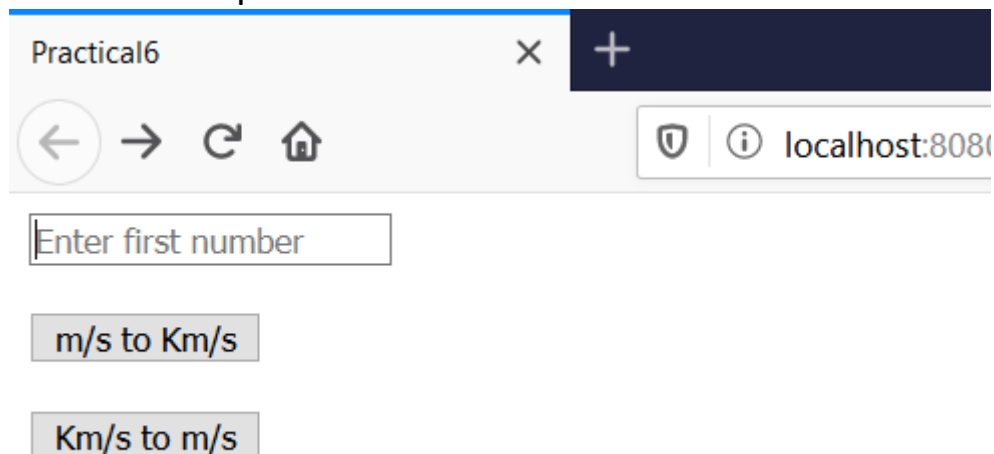
31. Now **open index.html file of ServiceClient** project and **replace the contents of body tag with following code**. **After that press Ctrl+S** to save it.

```
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
    </head>
    <body>
      <form>
          <input type="text" name="txt1" placeholder="Enter first number"><br/><br/>

          <input type="submit" formaction="MStoKmS.jsp" value="m/s to Km/s"><br/><br/>

          <input type="submit" formaction="KmstoMS.jsp" value="Km/s to m/s"><br/><br/>
      </form>
    </body>
</html>
```

32. Now **run the ServerClient** web application.

33. A window will open in browser as below.

34. Now **enter two numbers and click on Add Numbers button**. **Wait to get result**……..
    You will get result on a new page.

Practical6   ×   +

←   →   C   ⌂   🛡   ⓘ localhost:8080/

1

m/s to Km/s

Km/s to m/s

Km/s to m/s   ×   +

←   →   C   ⌂   🛡   ⓘ local

Result = 1000.0 m/s

M/s to Km/S   ×   +

←   →   C   ⌂   🛡   ⓘ loca

Result = 0.1 Km/s