.   Write a front end logic first after then go to backend

https://stackoverflow.com/questions/33576979/why-have-a-shutdown-port-in-tomcat

Revise -
1. Web server --- Http Server
2. Non JEE compliant and JEE Compiant
    Example --- non jee apache web server ,IIS, wamp
                    Jee - tomcat , weblogic, websphere, jboss, wildfly, glassfish
3. for writing servlet we need JEE compliant web server
4. static html = pre-created html
    Dynamic html = this is created at request time (on the fly)

5. Servlet = server side web component
        Why it is used ? 1. dynamic html , 2. data processing , 3. session managemnt
6. **Readymade** component --- Tomcat (servlet web container)
        We are **writing** --- servlet component
    Final WEB APPLICATION = Servlet Web Container + Servlet Component !!!
        Integration is possible because = both are JEE compliant !!!

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Ex1 ----
Use the Servlet to generate an html that shows Hello 100 times!!!!

1. we are writing the HundredHelloServlet
2.   we are overriding the doGet method
            We are not calling the doGet method !!!
                    Tomcat servlet web container will CALL doGet method !!
                    How many times does it call the doGet method ??? Once for each GET request
                    When will it call the doGet method ?? When the request arrives at server
3.   The parameters passed to doGet method are
        1. HttpServletRequest   request
                This is like IN parameter
                This object is filled with HTTP request data and passed to this doGet
        2. HttpServletResponse response
                This is like OUT parameter
                This object is empty and passed to doGet
                It is our responsibility to fill the response object !!!

Single Request Response Cycle
Browser --
I WROTE THIS in URL window ---------
http://localhost:8080/SWP/hello100
|
|
Browser reads **http** -----> browser understands **request** must be written in HTTP format
|
|
|Send the Http Request to localhost:8080   browser
|//localhost:8080/SWP/hello100
|
|

Tomcat Server on Localhost:8080
|
|SWP/hello100
|war1 , war2, war3…..
|
Select SWP.war application   tocat
|
|/hello100   (URL pattern is used to **map** the url name to the servlet)
|servlet1, servlet2, servlet3
|
|
Select HelloHundredServlet   tomcat
       Call doGet of this servlet
|
|
Generate HttpServletResponse Java object   servlet
|
|
Transformed to Http Response by Tomcat
|
|
Sent to the browser   tomcat
|
|
Read the http response body   browser
|
Parse html , create dom , Render   browser

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Ex2

Implement the following flow using servlet and static html !!

Input.html
Static html -------- Enter how many times you want to print hello :   textfield
                OK -- submit button

When the OK button is clicked = fire action to HundredHelloServlet url pattern , type of Http method = GET
Modify the HelloHundredServlet such that it picks the number from http request and prints only those many hello .

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Ex3

Modify the above example such that POST method is used to send the request when submit is clicked!!!

   0. in input.html make the method=POST
   1. If we do not give doPost in HundredHelloServlet ------------???   Http Response Error 405 method not allowed
   2. WE add the doPost overriding in the Servlet --- but it will have same code as doGet in our case
                                       So we internally call doGet

3. Sysout written in doGet /doPost is seen in Server Command Window !!!!

HW 1 ------------Do the Ex1, Ex2, Ex3 as discussed in class (don't copy code, type it and use my code for reference)

HW 2 ------------ Write a static html that accepts username and password from the user and clicks login submit button

        Login.html
        Write a LoginServlet ------------doPost method only
          Get the request parameter uname password and check
            If uname is "cdac" and password is "bingo123" then show the user
            Welcome Username
            Otherwise show the message - You are not allowed!!

HW 3 ----------- Write a static html that
          Num 1: tf
          Num2 : tf
          Dropdown : Add,Subtract,Multiply,Divide
          Do-submit = POST request -------- CalculatorServlet

          CalculatorServlet will calculate as per selection ---- show result as follows

            Output html
            Result
              10 + 20 = 30 //if num1 is 10 and num2 is 20 and dropdown
              selection is Add

HW 4 ------ Write a static html that has
          Name : tf
          Radio select
          Nationality : Indian rb , Canadian rb, australian rb

          OK button ---submit ------------> NationalityServlet
                  Pick the nationality and print output as
                  follows

                  Shubham is having Australian nationality //
                  name=Shubham and rb Australian selected

HW 5 ------------write a static html that has
            Name : tf
            Entertainment that you prefer : give check box for each one ------
            Movie
            Trek
            Classical Music
            Rock
            Party
            Trip

            OK ---submit button -----EntertainmentServlet
            It should show output html as
              Prachi likes Trek and Classical Music and Trip //assuming name = prachi
            and checkboxes   selected are Trek,Classical Music and Trip