JAVASCRIPT: INPUT & OUTPUT METHODS

There are many ways to get the Users Input and Display it to the screen. We will look at two ways to do this:
1. Popup dialogue boxes: Prompt() to input and Alert() to output
2. Call the JavaScript via onclick event: Using FORM FIELDS to input and DIV TAG + INNERHTML to output.

Activity

1. Create a working version for each of the 3 methods of inputting data. Cut and paste the code between the <body> </body> tags.
2. Save each as input1.html, input2.html
3. Modify each to also enter and display the gender (e.g. M/F)

1. Using dialogue boxes: PROMPT() and ALERT()

INPUT – PROMPT()
OUTPUT – ALERT()
These are functions that generate a dialogue box to pop up. Prompt() is used to enter data and Alert() is used to output data.

CODE 1

```
1    <input type="button" value="submit" onClick="process()" />
2    <!-------PUT YOUR JS CODE HERE---------------------------->
3    <script>
4    function process(){
5      //The input and output fields
6       var name = prompt("name");
7       var age = prompt("age");
8       alert("Hi   " + name + "  your age is  " + age);
9    }
10   </script>
```

EXPLANATION

LINE	EXPLANATION
Line 1:	Button. When user clicks this button the onClick function is activated and calls the process() function. You program will JUMP down to this process() function and run.
Line 2:	Comments
Line 3:	This is the **beginning** TAG that your JavaScript must be enclosed in.
Line 4:	Start of the JavaScript function called process()
Line 5:	Comments
Line 6:	The PROMPT function pops up a dialog box to the user asking for a "name". This line of code then assigns whatever the user enters to the variable called "name"
Line 7:	Does the same as line 6 but with age
Line 8:	Uses the ALERT function to pop up a dialog box with the data entered in.
Line 9:	The } ends the function
Line 10:	This is the **End** TAG that your JavaScript must be enclosed in.

2. onClick: FORM FIELDS and DIV TAG + INNERHTML

INPUT - FORM FIELDS
OUTPUT - DIV TAG + INNERHTML

Form fields are standard HTML input methods, they include, text boxes, radio buttons, lists etc. They are contained within a form, with a button. In this example onClick of the button it runs a JavaScript function that will process the data entered. The output is returned back to the HTML using the DOM to find the element identified in the code and InnerHTML.

CODE

```
1    <form name="form">
2        <input id="InputName" type="text" placeholder="enter name">
3        <input id="InputAge" type="text" placeholder="enter age">
4        <input type="button" value="submit" onClick="process()" />
5    </form>
6    <br>
7    <div id="output"> output </div>
8    <script>
9        function process()  {
10           var name = String(document.form.InputName.value);
11           var age = Number(document.form.InputAge.value);
12           document.getElementById('output').innerHTML =  "Your name is " +
     name  + " and  your age is  " + age ;
13       }
14   </script>
```

EXPLANATION

CODE	EXPLANATION
Line 1:	Form TAG
Line 2:	The Form Input TextBox for NAME. The ID name is used to identify the data. Placeholder will display the text in the textbox for the user to see, this is over written when the user types in their value
Line 3:	Does the same as line 2, but has a different display and id
Line 4:	Button. When user clicks this button the onClick function is activated and calls the process() function. Your program will JUMP down to this process() function (on line 9) and run.
Line 5:	End Form TAG
Line 6:	Break – so the output on line 7 will go to next line
Line 7:	DIV TAG – With the ID name "output".
Line 8:	This is the **beginning** TAG that your JavaScript must be enclosed in
Line 9:	Start of the JavaScript function called process()
Line 10:	This line gets the form TextField Value with the ID "InputName" and assigns it to the variable called "name". NOTE: The Function String() converts the value to a String
Line 11:	Same as line 10, with the ID "InputAge" assigned to the Variable "name". NOTE: The Function Number() converts the value passed to a Number. If it is not a number it will return "NaN".
Line 12:	This line assigns the statement in the "" on the right of the Equal Sign to inside the DIV TAG with the ID of "output". It does this by using the DOM to locate the Element TAG called Output (on line 7). The innerHtml will put this data inside the DIV TAG.
Line 13:	Close bracket for the process() function
Line 14:	This is the **End** TAG that your JavaScript must be enclosed in.