Day-1 : JS fundamentals

1. Write a program to accept three positive numbers and output the largest of them.
2. Accept an integer value and a message from user and print the message that many number of times.
3. Write a function to list all even numbers less than or equal to the number n. Take the value of n as input from user. Use while loop
4. Write a function that accepts two numbers and a operator like (+,-,*, /) from user and performs the appropriate operation indicated by the operator.
5. Write a program to print the multiplication table of a given number up to 10 multiples. Eg for number 2, output should be like

$$
\begin{aligned}
2 * 1 &= 2 \\
2 * 2 &= 4 \\
2 * 3 &= 6 \\
2 * 4 &= 8 \\
2 * 5 &= 10 \\
2 * 6 &= 12 \\
2 * 7 &= 14 \\
2 * 8 &= 16 \\
2 * 9 &= 18 \\
2 * 10 &= 20
\end{aligned}
$$

6. Write a program min() that takes any number of arguments and returns minimum number in the set of arguments. Do **not** use the Math predefined objet
7. Write a function pow(x,y) that calculates x^y. Do not use the Math predefined objet
8. Create a web page to calculate the Compound Interest using the formula given below:

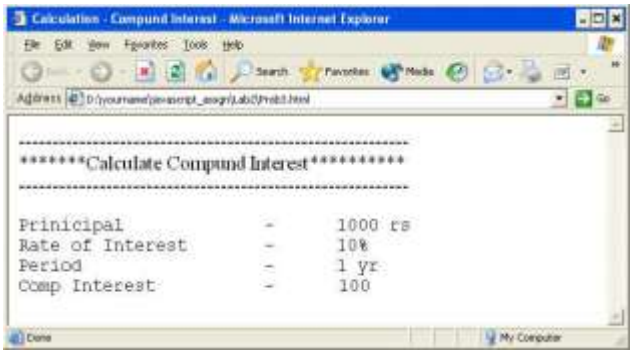
   Compound Interest = $\left[P * \left(1 + \frac{r}{100}\right)^n\right] - P$

   Where:

   p = Principal,

   r = Rate of Interest, n = period in years

   The values used in the example in the following figure are as follows: P = 1000, n = 1, r = 10



9. JS objects (DO Not Use UI for any of these assignments)

1. Create a web page that displays the current date in the format specified as in example below. Also as per current time, suitable greeting should be printed.

Today is Monday, 24 April 2000, Welcome, and Good Afternoon to You.
Number of days left till end of year : <display>

2. Write a function getWeekDay(date) to show the weekday in short format: 'Mon', 'Tue', 'Wed', 'Thurs', 'Fri', 'Sat', 'Sun'.

```
Eg : let date = new Date(2012, 0, 3); // 3 Jan 2012
     alert( getWeekDay(date) );        // should output "Tue"
```

10. Accept and store names of 6 employees into array and display in sorted order of names.

11. Create an array that holds 4 employee objects and displays each emp detail in a table. Employee details could be empid, empname and salary. Use for each loop to inspect all properties of each object

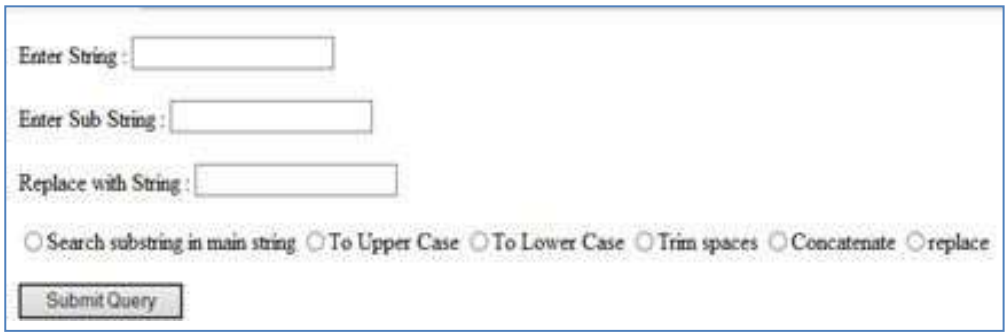
12. Create a custom object for rectangle and circle. Individual Rectangle objects should be able to store dimension, and have methods to print area and perimeter. Individual Circle objects should be able to store radius, and have methods to print area and circumference. Display dimensions, area and perimeter of rectangle and circle objects. Make use of pre-defined objects

13. An array contains a set of 5 words. Write Javascript to reverse each word and arrange the resulting words in alphabetical order. Make use of array functions

14. Say, have an array that holds many web site names. Eg, www.google.com, www.msn.com, www.amazon.co.in, in.answers.yahoo.com, en.m.wikipedia.com, codehs.gitbooks.io, www.coderanch.com etc. Search for all sites that begin with "www" and display the total number of such sites. Eg for above eg, total is 4

15. Create a HTML form that accepts radius and displays the area and circumference of a circle. Make use of Math object

16. Create the HTML form given below. Use JS to manipulate strings. Display the output below the button



- 1st radio button : search the given sub string (second text box) in main string (first text box)
- 2nd & 3rd radio button: convert one of the strings to upper/lower case
- 4th radio button : trim spaces around first string
- 5th radio button : concatenate strings in first and 2nd text boxes
- 6th radio button : do as shown

JQuery assignments.

1. Write a program that accepts (from the html form) a positive integer less than 1000 and prints out the sum of the digits of this number.

   Enter a +ve no less than 1000: -4 Entered number is out of range

   Enter a +ve no less than 1000: 1234 Entered number is out of range

   Enter a +ve no less than 1000: 546 Sum of the digits of 546 is 15

2. Assume i have an array of member names. Read the array and display all member names as a string delimited by comma all in uppercase

   Members of my Group are

   JOHN,STEVE,BEN,DAMON,IAN

3. Assume we have this content in HTML <body>

   ```
   <body>
   <h3> Members of my Group are </h3>
   <ol id="list">
   ```

```
</ol>
</body>
```

Also assume we have an array of person names (5 names).
Read from array and populate the above list with member names in bullet form.

Members of my Group are

1. John
2. Steve
3. Ben
4. Damon
5. Ian

4. Consider a HTML document made of multiple divs. Search all divs that contain the string "training"

5. Payment calculator
   Create a following web page and calculate Payment Information based on Loan Information. Validate Loan information textfields for numbers and Payment Information textfields should be uneditable. The other constraints are as follows :
   - Amount of Loan should not be more than 15 lakhs.
   - Repayment period should be between 7 yrs to 15 yrs.

Enter Loan Information:

1) Amount of the loan (any currency):
2) Annual percentage rate of interest:
3) Repayment period in years:

Compute **Payment Information:**

4) Your monthly payment will be:
5) Your total payment will be:
6) Your total interest payments will be:

6. Create a Login.html page that accepts username and password. Following are the validations required:
   - Both fields are mandatory
   - Username must be between 6 to 10 characters, all alphabetic.
   - Password should be greater than 8 characters, must contain a # and atleast one digit.

7. Create a HTML page that accepts order details:

Order ID : 1

Cust name : Techi Cust name cannot be < 6 characters

Enter Billing date : 13-10-2017 Billing date cannot be greater than shipping date

Enter Shipping date : 03-10-2017

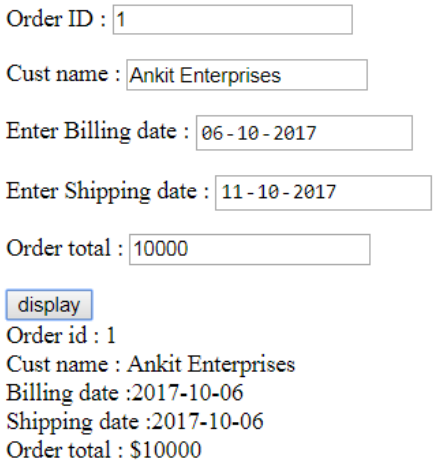
Order total : 10000

display

Following are validations required:

- All fields are mandatory
- Cust name must be greater than 5 characters.
- Billing date must be lesser than shipping date

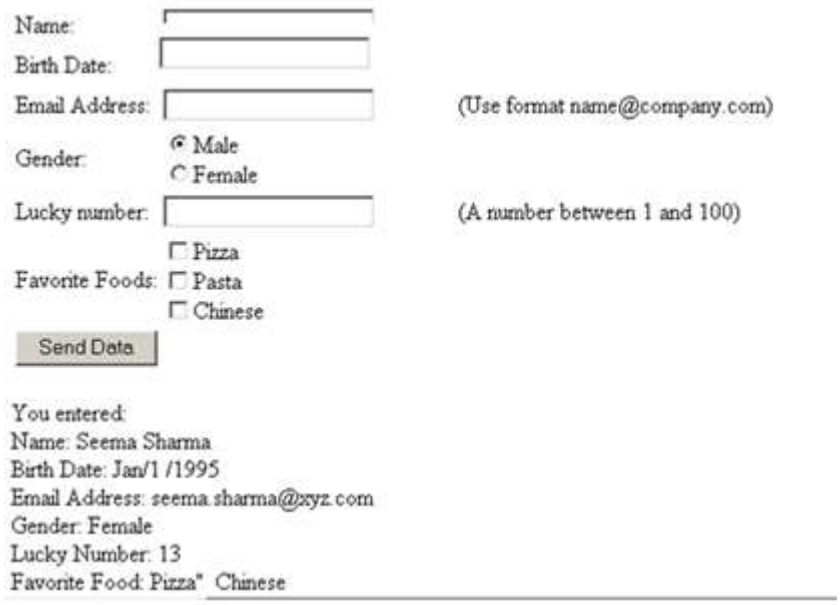
If all goes well, display as follows; On clicking the display button, all form information must be saved into an Order object. The details of this object must be displayed in window in a neat tabular fashion



8. Create a HTML page that will display the following form and on clicking the button, the details will be listed as shown. Also create an object with all details from form, show them in new window thru the newly created object

The following requirements must be met:

- Name: Required, only alphabets allowed, maximum length is 10.
- Lucky number: Required, must be of 4 digits.
- All other fields are mandatory



9. You are given an array of product objects representing items in a supermarket. Each product has these properties:

```
const products = [
 { id: 101, name: "Apple", category: "Fruits", price: 120, quantity: 10 },
 { id: 102, name: "Banana", category: "Fruits", price: 60, quantity: 25 },
 { id: 103, name: "Carrot", category: "Vegetables", price: 40, quantity: 30 },
 { id: 104, name: "Potato", category: "Vegetables", price: 30, quantity: 50 },
 { id: 105, name: "Milk", category: "Dairy", price: 50, quantity: 15 },
 { id: 106, name: "Cheese", category: "Dairy", price: 150, quantity: 5 }
];
```

---

1. Add a new product { id: 107, name: "chair", category: "furniture", price: 3000, quantity: 20 }
2. Remove the last product
3. Add a new product at the beginning
4. Remove the first product
5. display the products array from 2 product to 6 th product use slice function
6. Remove two products starting from index 2.
7. Find the product with id = 103
8. Check if there's any product with quantity less than 5
9. Check if all products have quantity greater than 0
10. Find the index of the product named "Milk"
11. Verify whether "Cheese" exists in the product names using includes() and map().
12. Create an array of only product names using map().
13. Create an array of prices only using map().
14. Increase the price of all products by 10% using map().
15. Create a new array of products whose category is "Fruits" using filter().
16. Sort the products by price in ascending order using sort().
17. Sort the products by name alphabetically.
18. Reverse the sorted array using reverse().
