1. Write a JavaScript to Check Palindrome number by accepting the number through prompt box.

function isPalindrome(str) {

let j = str.length - 1

for (let i = 0; i < str.length / 2; i++) {

if (str[i] != str[j]) {

return false;

}

j--;

}

return true;

}

let str1 = "1234321";

console.log(isPalindrome(str1));

1. **Write a JAVAScript to take 2-digit number and then separate these 2 digits, then multiply first digit by itself for second digit times. (for example, 23 should be separated as 2 and 3. 2 should multiply with itself 3 times).**

<html>

<head>

<script type="text/javascript">

n=23;

i=n%10;

n=parseInt(n/10);

document.write("Value of i:"+i);

document.write("<br/>Value of n:"+n);

document.write("<br/>ANSWER:"+Math.pow(n,i));

</script>

</head>

<body>

</body>

</html>

1. **Write a JavaScript that uses function to calculate how many days are left in your birthday?**
2. **Write a JavaScript that handles following mouse events. Add necessary elements. (i)JavaScript gives the key code for the key pressed.**

**(ii)If the key pressed is “a”, “e”, “i”, “o”, “u”, the script should announce that vowel is pressed.**

**(iii)When the key is released background should change to red.**

1. **Write an ES6 script that creates a class time having members hours, minutes and second. Create two-time objects and add both the time objects so that it should return in third time object. Third time object should have hour, minute and second such that after addition if second exceeds 60 then minute should be incremented also if minutes exceeds 60 then hour should be incremented**.

class time

{

constructor(hour,min,sec)

{

this.hour=hour;

this.min=min;

this.sec=sec;

}

timer()

{

var t=new time();

t.hour=t1.hour+t2.hour;

t.min=t1.min+t2.min;

t.sec=t1.sec+t2.sec;

if(t.sec>60)

{

t.sec%=60;

t.min++;

}

if(t.min>60)

{

t.min%=60;

t.hour++;

}

return t;

}

}

var t1= new time(1,50,50);

var t2= new time(2,30,50);

console.log(t1.timer());

</script>

1. **Write a JavaScript to find whether the number is happy/Lucky number or not.**

<html>

<head>

<script type="text/javascript">

n=6661;

while(n>9)

{

sum=0;

while(n>0)

{

i=n%10;

n=parseInt(n/10);

sum=sum+i;

}

document.write(sum+"<br/>");

n=sum;

}

if(n==1)

{

document.write("NUMBER IS A LUCKY ONE");

}

else

{

document.write("NUMBER IS A UNLUCKY ONE");

}

</script>

</head>

<body>

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</html>

1. Design a login form using HTML & JS with following validations on name, contact number & email-id fields.
   1. Name filed only accept characters.
   2. Contact number only accept 10 digits.
   3. Email-id have proper email validation like abc@gmail.com or a1b1c.def.ghi@ljku.edu.in
2. Write ES6 code to concatenate three arrays into a new array. Use spread operator.
3. Write JavaScript that handles following mouse event. 1. If mouse left button pressed on browser it displayed message “Left Clicked”. 2. If mouse right button pressed on browser it displayed message “Right Clicked”.
4. Write an ES6 script to find distance between two points using two point objects.

<html>

<head>

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<body>

<script>

class point

{

    constructor(x,y,z)

    {

        this.x=x;

        this.y=y;

        this.z=z;

    }

    dist=()=>

    {

        let ans=Math.pow((p1.x-p2.x),2)+Math.pow((p1.y-p2.y),2)+Math.pow((p1.z-p2.z),2);

        let dist= Math.sqrt(ans);

        return dist;

    }

}

let p1=new point(5,5,5);

let p2=new point(4,4,4);

console.log(`distance=${p1.dist()}`)

</script>

</body>

</html>

1. Write JS code to compare two dates & script give alert “First date is greater” if first given date is after second given date & “Second date is greater” if first given date is before second given date while clicking compare button.
2. Write a JS code to take numbers from user & find the sum of positive numbers. If the user enters a negative number, the loop ends & final sum is print.
3. **Design a login form using HTML & JavaScript with following validations on username and password fields.** 
   1. **Password length must be 6 to 12 characters**
   2. **Username should not start with \_, @ or number.**
   3. **Both should not be blank.**
4. Write a JavaScript that handles following mouse events. Add necessary elements.
   1. If the mouse is over the heading, heading should change its text and color red and if the mouse goes out of the heading the text should return with same text as before and color should turn black.
   2. If mouse button is pressed, background color should be black. If mouse button is released up, background color should be cyan.
   3. Add a button named “add” clicked that gives sum of two digits when user clicks on button.
5. Write an ES6 function to be called on button click. Take one <div> with some text and no decoration initially. Take font color and variant as default argument & pass font size and background color while passing the argument.