

HTML:

1. What is the !DOCTYPE we place at the top of html file? Why we need it?
3. List some semantic tags in html5
4. Write a code snippet to achieve the requirements set up a link for user, user can click the link and redirect user to the YouTube in the separate tab.
5. What is difference between block element and inline element?

CSS

1. How many ways you can embed css code into html file?
2. What is css specificity? Please explain it in the desc order?
3. What is pseudo element and pseudo class?
4. Write code snippets to make element center horizontally, vertically and both?
5. What is margin collapse?
7. What's css box-sizing attributes?
8. CSS to hide HTML elements and their differences?
9. What is css image sprites?

JS:

1. Please explain JS mechanism (sync and async code and event loop)
2. What is the difference between function declaration and function expression?
3. Let vs const vs var?
4. List ES6 features you know
5. Function prototype methods, bind vs apply vs call?
6. How to deep copy object in JS?
7. Event bubbling vs Event Capturing ? What is Event Delegation?
8. What is Closure in JS?

1.

```
function createIncrement() {  
  let value = 0;  
  
  function increment() {  
    ++value;  
    console.log(value);  
  }  
  
  const msg1 = `msg1: ${value}`;  
  function log() {  
    const msg2 =  
      `msg2: ${value}`;  
    console.log(msg1);  
    console.log(msg2);  
  }  
}
```

```

    return [increment, log];
}

const [increment, log] = createIncrement();
increment();
increment();
log();

```

What's the console output for the above code?
Write the output in order and error type if there are any errors.

2. given an array and print output data at schedule

```

Let list = [{
  value: 'a',
  delay: 2000
},
{
  value: 'b',
  delay: 1000
},
{
  value: 'c',
  delay: 3000
},
...
];

```

We need to output 'a' after 2 seconds, output 'b' 1 second after 'a', and output 'c' 3 seconds after 'b'

```

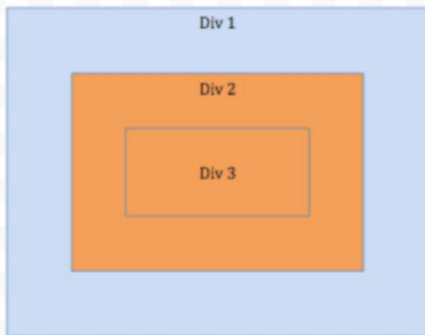
function printTasks(list) {

}

```

3. HTML-CSS-JS Coding

1. The Rectangles



Make three rectangles as shown in the figure above.
Clicking on any rectangle should alert the name of the rectangle.

You don't have to put the exact text like "div-x", just make three divs have different background colors.

For example:

Click on div1 -> print div1

Click on div2 -> print div2 div1

Click on div3 -> print div3 div2 div1

(print in order)

<https://codepen.io/pen/> suggested editor

Click on div1 -> print div1

Click on div2 -> print div1 div2

Click on div3 -> print div1 div2 div3

(print in order)

***Extra part:**

Click on div1 -> print div1 div2 div3

Click on div2 -> print div2 div3

Click on div3 -> print div3

(print in order)