

I have posted several videos on eskns site (see syllabus for details) under week 1 about JavaScript that would help you do this homework assignment and future assignments. I will cover other aspects of JavaScript as I assign future assignments.

You could run JavaScript code using nodejs. Please install nodejs on your machine. For Windows users, I recommend first installing VirtualBox and then installing FreeBSD with the mate desktop or CentOS on top of VirtualBox. Then install nodejs on that OS. You could also directly install nodejs on your Windows. However, I can't help you in case you run into issues. For MacOS users, since it is a fork off of FreeBSD, you should be able to install nodejs directly.

The following code initializes a few variables. Your code should begin with these variables and use them subsequently as indicated:

```
const course_id = 'CSC441';
const section = 'H001';
const university = 'usm';
const term = 'spring_semester';
const year = 2021;
```

(1) Let CourseItem be a function that takes a **single** argument called props. Inside the function use the typeof operator to check if the type of props is 'object'. If it is an object then print each key, value pair on a separate line using console.log. If props of type 'string' then it should print it as is and immediately return. In case props is an object and has a year property, then, return an object that has the year as the key whose value is an object with the rest of the key-value pairs of props. For example the return value for the about data would be { '2021' : { 'course\_id' : 'CSC441', 'section': 'H001', etc } }. Other than a year and a corresponding value, I will use totally different key-value pairs to test your code. In other words, you cannot assume that the props I pass would have a key called course\_id or a value 'CSC441'

(2) Pass all the variables initialized above in a single call to CourseItem without changing the number of parameters the function takes. Make sure that the function prints the variable name and its value one per line.

(3) Complete the following code:

```
let arr = [1,2,3].map(YOUR FUNCTION HERE)
```

Note that [1,2,3] is an array and map function is defined on the Array object. Read about Array on MDN. Your function should call CourseItem and pass the same keys with different values each time map calls it. The return value of CourseItem should be the return value of your function. After the above line add a console.log(arr) to print the contents of arr.

(4) Watch my videos about array destructuring and object destructuring. Complete the function status shown below:

```
const status = ({year, university, ...rest}) => {
//if the year is before 2020, print "pre Covid" and if the year is after 2021 print "post Covid"
//otherwise print "in Covid pandemic"
//if the university is usm then print "Hattiesburg", msu then print "Starkville", um then print
// "Oxford" (function continues in the next page)
```

```
//print rest as is  
}
```

(5) Call the status function using the array you created in part (3). For each element of the array pass all the key-value pairs. Again, I will use totally different key-value pairs to test you code. So, don't hardcode any key value pairs (other than year and university, of course).