Introduction to JavaScript
February 12, 2019

Question 1:
Prompt for amount, interest rate, and number of years, and calculate simple interest

Code: https://github.com/Deee92/bootcamp_assignments/tree/master/js_exercise_one

Open

index.html
~/ttn_dev/Feb12/js_exercise_one

```
<!doctype html>
<html>
<head>
  <meta charset="utf-8">
  <title>JS Exercise One</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
<div class="main">
  <h1>Simple Interest</h1>
  <hr/>
  <table>
    <tr>
      <td>Principal</td>
      <td id="amount"></td>
    </tr>
    <tr>
      <td>Rate of Interest</td>
      <td id="rate-of-interest"></td>
    </tr>
    <tr>
      <td>Time</td>
      <td id="time"></td>
    </tr>
    <tr>
      <td>Simple Interest</td>
      <td id="simple-interest"></td>
    </tr>
  </table>
</div>
<script src="app.js"></script>
</body>
</html>
```

Open

app.js
~/ttn_dev/feb12/js_exercise_one

```
var amount;
var rateOfInterest;
var time;

// Amount should be a positive number
while (isNaN(amount) || amount < 0 || amount == null) {
    amount = prompt("Principal amount (Rupees)");
}
document.getElementById("amount").innerHTML = "Rs " + amount;

// Rate of interest should be a positive number
while (isNaN(rateOfInterest) || rateOfInterest < 0 || rateOfInterest == null) {
    rateOfInterest = prompt("Rate of interest (%)");
}

document.getElementById("rate-of-interest").innerHTML = rateOfInterest + "%";

// Time should be a positive number
while (isNaN(time) || time < 0 || time == null) {
    time = prompt("Time (years)");
}

document.getElementById("time").innerHTML = time + " year(s)";

calcInterest(amount, rateOfInterest, time);
document.getElementById("simple-interest").innerHTML = "Rs " + calcInterest();

function calcInterest() {
    var interest = (amount * rateOfInterest * time) / 100;
    return interest;
}
```

Simple Interest

Principal	Rs 2000
Rate of Interest	5%
Time	3 year(s)
Simple Interest	Rs 300

Question 2:
Find out if a string is a palindrome

Code: https://github.com/Deee92/bootcamp_assignments/tree/master/js_exercise_two

Open

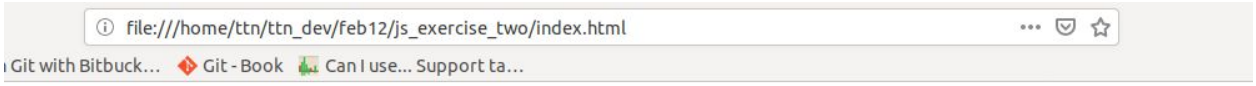
index.html
~/ttn_dev/feb12/js_exercise_two

```
<!doctype html>
<html>
<head>
  <meta charset="utf-8">
  <title>JS Exercise Two</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
<div class="main">
  <h1>Palindromes</h1>
  <hr/>
  <h2 id="is-palindrome"></h2>
</div>
<script src="app.js"></script>
</body>
</html>
```

Open

app.js
~/ttn_dev/feb12/js_exercise_two

```
var myString;
while (myString == null || !isNaN(myString)) {
  myString = prompt("Your string");
}

function palindrome(myString) {
  var re = /[\W_]/g;
  var lowRegStr = myString.toLowerCase().replace(re, '');
  var reverseStr = lowRegStr.split('').reverse().join('');
  return reverseStr === lowRegStr;
}

var answer = document.getElementById("is-palindrome");
if (palindrome(myString) == true) {
  answer.innerHTML = myString + " is a palindrome";
} else {
  answer.innerHTML = myString + " is not a palindrome";
}
```



Palindromes

ABBA is a palindrome

Palindromes

Kaaj is not a palindrome

Question 3:
Find the area of a circle

Code: https://github.com/Deee92/bootcamp_assignments/tree/master/js_exercise_three

Open

index.html
~/ttn_dev/Feb12/js_exercise_three

```
<!doctype html>
<html>
<head>
  <meta charset="utf-8">
  <title>JS Exercise Three</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
<div class="main">
  <h1>Circle</h1>
  <hr/>
  <h2 id="circle-area"></h2>
</div>
<script src="app.js"></script>
</body>
</html>
```

```
}

function calcArea(radius) {
  let area = 3.14 * radius * radius;
  return area;
}

document.getElementById("circle-area").innerHTML = "Area of circle with radius " + radius + ": " + calcArea(radius);
```

file:///home/ttn/ttn_dev/feb12/js_exercise_three/index.html

with Bitbuck... Git - Book Can I use... Support ta...

Circle

Area of circle with radius 6: 113.03999999999999

Question 4:
Copy information of one object to another and log it to console

Code: https://github.com/Deee92/bootcamp_assignments/tree/master/js_exercise_four

Open ▾ index.html ~/ttn_dev/feb12/js_exercise_four

```html
<!doctype html>
<html>
<head>
  <meta charset="utf-8">
  <title>JS Exercise Four</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
<div class="main">
  <h1>Copying Objects</h1>
  <hr/>
  <h2>Original: <span id="original-object"></span></h2>
  <h2>Copy: <span id="copied-object"></span></h2>
</div>
<script src="app.js"></script>
</body>
</html>
```

```javascript
var myObject = {
  "country": "India",
  "capital": "New Delhi"
};

console.log("Original object: ")
console.log(myObject);
document.getElementById("original-object").innerHTML = myObject.country + ", " + myObject.capital;

var myObjectCopy = {};

for (var key in myObject) {
  myObjectCopy[key] = myObject[key];
}

console.log("Copied object: ");
console.log(myObjectCopy);
document.getElementById("copied-object").innerHTML = myObjectCopy.country + ", " + myObjectCopy.capital;
```

Question 5:
Create a list of objects of Employee with info as follows:

- name, age, salary, DOB
- filter all employees with salary greater than 5000
- group employee on the basis of their age
- fetch employees with salary less than 1000 and age greater than 20. Then give them an increment 5 times their salary.

Code: https://github.com/Deee92/bootcamp_assignments/tree/master/js_exercise_five

Open

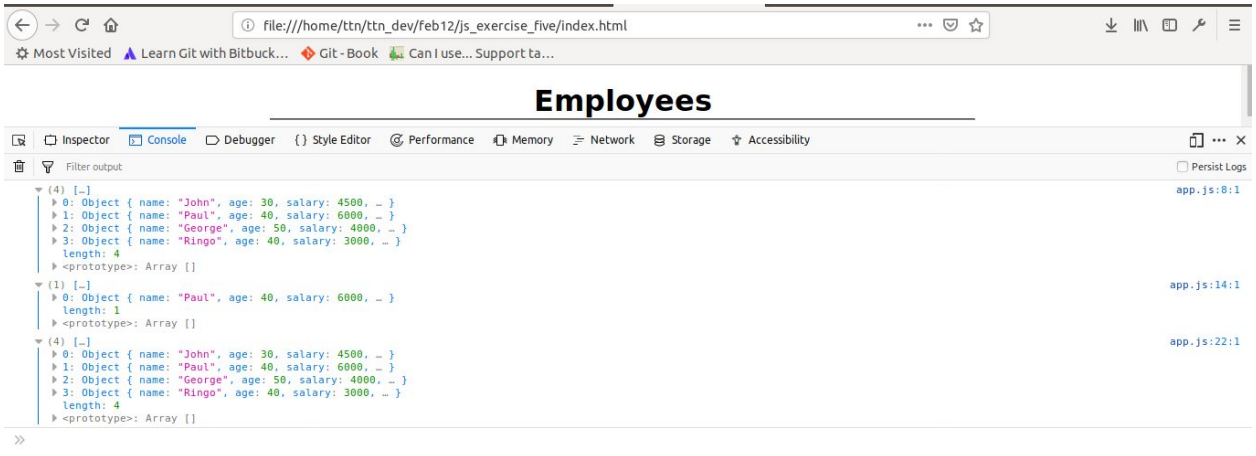
index.html
~/assignments/bootcamp_assignments/js_exercise_five

```
<!doctype html>
<html>
<head>
  <meta charset="utf-8">
  <title>JS Exercise Five</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
<div class="main">
  <h1>Employees</h1>
  <hr/>
  <p id="employee-list"></p>
</div>
<script src="app.js"></script>
</body>
</html>
```

Open

app.js
~/assignments/bootcamp_assignments/js_exercise_five

```
var employees = [
  {"name": "John", "age": 30, "DOB": new Date(1990, 12, 15), "salary": 900},
  {"name": "Paul", "age": 40, "DOB": new Date(1980, 8, 27), "salary": 6000},
  {"name": "George", "age": 50, "DOB": new Date(1970, 6, 2), "salary": 4000},
  {"name": "Ringo", "age": 40, "DOB": new Date(1980, 5, 13), "salary": 3000}
];

console.log(employees);

var richEmployees = employees.filter(function (emp) {
  return emp.salary > 5000;
});

console.log(richEmployees);

for (let i = 0; i < employees.length; i++) {
  if (employees[i].salary < 1000 && employees[i].age > 20) {
    employees[i].salary *= 5;
  }
}

console.log(employees);
```


file:///home/ttn/ttn_dev/feb12/js_exercise_five/index.html
Most Visited
Learn Git with Bitbuck...
Git - Book
Can I use... Support ta...
Employees
Inspector
Console
Debugger
Style Editor
Performance
Memory
Network
Storage
Accessibility
Filter output
Persist Logs
(4) [...]
app.js:8:1
0: Object { name: "John", age: 30, salary: 4500, ... }
1: Object { name: "Paul", age: 40, salary: 6000, ... }
2: Object { name: "George", age: 50, salary: 4000, ... }
3: Object { name: "Ringo", age: 40, salary: 3000, ... }
length: 4
<prototype>: Array []
(1) [...]
app.js:14:1
0: Object { name: "Paul", age: 40, salary: 6000, ... }
length: 1
<prototype>: Array []
(4) [...]
app.js:22:1
0: Object { name: "John", age: 30, salary: 4500, ... }
1: Object { name: "Paul", age: 40, salary: 6000, ... }
2: Object { name: "George", age: 50, salary: 4000, ... }
3: Object { name: "Ringo", age: 40, salary: 3000, ... }
length: 4
<prototype>: Array []