TW-05 GROUP VERSION

TEAMWORK

CLARUSWAY
WAY TO REINVENT YOURSELF

Meeting Agenda

- Icebreaking
- Questions
- Interview Questions
- Coffee Break
- Coding Challenge
- Video of the week
- Retro meeting
- Case study / project

Teamwork Schedule

Ice-breaking 10m

- Personal Questions (Stay at home & Corona, Study Environment, Kids etc.)
- Any challenges (Classes, Coding, studying, etc.)
- Ask how they're studying, give personal advice.
- Remind that practice makes perfect.

Workshop Activities (Tuesday) 90m

1. Capital Letters

- The purpose of this coding challenge is to capitalize the first letter of each word in the given long text.

Sample Input :

```
There are many variations of passages of Lorem Ipsum available, but the majority
have suffered alteration in some form, by injected humour, or randomised words
which don't look even slightly believable. If you are going to use a passage of
Lorem Ipsum, you need to be sure there isn't anything embarrassing hidden in the
middle of text. All the Lorem Ipsum generators on the Internet tend to repeat
predefined chunks as necessary, making this the first true generator on the
Internet. It uses a dictionary of over 200 Latin words, combined with a handful of
model sentence structures, to generate Lorem Ipsum which looks reasonable. The
generated Lorem Ipsum is therefore always free from repetition, injected humour, or
non-characteristic words etc.
```

Expected Output :

```
There Are Many Variations Of Passages Of Lorem Ipsum Available, But The Majority
Have Suffered Alteration In Some Form, By Injected Humour, Or Randomised Words
which Don't Look Even Slightly Believable. If You Are Going To Use a Passage Of
Lorem Ipsum, You Need To Be Sure There Isn't Anything Embarrassing Hidden In The
Middle Of Text. All The Lorem Ipsum Generators On The Internet Tend To Repeat
Predefined Chunks As Necessary, Making This The First True Generator On The
Internet. It Uses A Dictionary Of Over 200 Latin Words, Combined With A Handful Of
Model Sentence Structures, To Generate Lorem Ipsum Which Looks Reasonable. The
Generated Lorem Ipsum Is Therefore Always Free From Repetition, Injected Humour, Or
non-characteristic Words Etc.
```

2. Filtering and Transforming Data

- You have an array of objects representing books, and each object has properties like "title," "author," and "rating." Your task is to create a JavaScript function that filters the books based on a specific rating threshold and then transforms the filtered books into a new array containing only the "title" and "author" properties of the selected books.

For Example :

```
const books = [
  { title: 'The Catcher in the Rye', author: 'J.D. Salinger', rating: 4.2 },
  { title: 'To Kill a Mockingbird', author: 'Harper Lee', rating: 4.6 },
  { title: '1984', author: 'George Orwell', rating: 4.0 },
  { title: 'The Great Gatsby', author: 'F. Scott Fitzgerald', rating: 4.7 },
  { title: 'Pride and Prejudice', author: 'Jane Austen', rating: 4.5 },
];

const minRating = 4.5;


//Expected Output
[
  { title: 'To Kill a Mockingbird', author: 'Harper Lee' },
  { title: 'The Great Gatsby', author: 'F. Scott Fitzgerald' },
  { title: 'Pride and Prejudice', author: 'Jane Austen' }
]
```

- You can use this sample array:

```
const books = [
  { title: 'The Catcher in the Rye', author: 'J.D. Salinger', rating: 4.2 },
  { title: 'To Kill a Mockingbird', author: 'Harper Lee', rating: 4.6 },
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  { title: 'The Great Gatsby', author: 'F. Scott Fitzgerald', rating: 4.7 },
  { title: 'Pride and Prejudice', author: 'Jane Austen', rating: 4.5 },
  { title: 'Moby-Dick', author: 'Herman Melville', rating: 4.1 },
  { title: 'The Lord of the Rings', author: 'J.R.R. Tolkien', rating: 4.8 },
  { title: 'The Hobbit', author: 'J.R.R. Tolkien', rating: 4.3 },
  { title: 'Harry Potter and the Sorcerer\'s Stone', author: 'J.K. Rowling',
rating: 4.7 },
  { title: 'Brave New World', author: 'Aldous Huxley', rating: 4.0 },
  { title: 'The Shining', author: 'Stephen King', rating: 4.2 },
  { title: 'The Da Vinci Code', author: 'Dan Brown', rating: 3.9 },
  { title: 'The Alchemist', author: 'Paulo Coelho', rating: 4.4 },
  { title: 'War and Peace', author: 'Leo Tolstoy', rating: 4.9 },
  { title: 'Crime and Punishment', author: 'Fyodor Dostoevsky', rating: 4.5 },
  { title: 'The Odyssey', author: 'Homer', rating: 4.6 },
  { title: 'Frankenstein', author: 'Mary Shelley', rating: 4.2 },
  { title: 'The Hunger Games', author: 'Suzanne Collins', rating: 4.1 },
  { title: 'The Road', author: 'Cormac McCarthy', rating: 4.3 },
  { title: 'The Hitchhiker\'s Guide to the Galaxy', author: 'Douglas Adams',
```

```
  rating: 4.7 },
    { title: 'The Count of Monte Cristo', author: 'Alexandre Dumas', rating: 4.8 },
  ];
```

Team Work Activities (Friday) 90m

Ask Questions 20m

1. How do you access a property of an object in JavaScript?

A. By using square brackets
B. By using the dot notation
C. By using parentheses
D. By using commas

2. How do you check if a property exists in an object in JavaScript?

A. By using the exist keyword
B. By using the contains keyword
C. By using the hasOwnProperty method
D. By using the isProperty method

3. How do you delete a property from an object in JavaScript

A. By using the `delete` keyword
B. By using the `remove` keyword
C. By setting the property value to null
D. By assigning an empty string to the property

4. How do you add a new property to an existing object in JavaScript

A. By using the `add` keyword
B. By using the `insert` keyword
C. By using the `update` keyword
D. By assigning a value to a new key

5. What is an object in JavaScript?

A. A function
B. A data tool
C. A data structure
D. An array

6. How can you create an empty object in JavaScript?

A. `emptyObject = {};`
B. `emptyObject = new Empty();`
C. `emptyObject = Object.empty();`
D. `emptyObject = new Object;`

7. How do you clone an object in JavaScript?

A. Use the Object.clone() method
B. Use the Object.assign() method or the spread operator (...)
C. Use the Object.copy() method
D. Use the Object.duplicate() method

8. What is object destructuring in JavaScript?

A. A way to create objects from strings
B. A way to concatenate objects
C. A way to merge objects
D. A way to extract properties from an object and assign them to variables

9. How do you swap the values of two variables without using a temporary variable using array destructuring?

A. const a = b; const b = a
B. const [a, b] = [a, b];
C. const [a, b] = [b, a];
D. const [b, a] = [a, b];

10. What happens if you try to destructure an array with more variables than there are elements in the array?

A. Extra variables are assigned undefined
B. An error is thrown
C. The array is automatically resized
D. Only the first few variables are assigned values

11. What does the rest element (...) do in array destructuring?

A. It spreads elements into multiple arrays
B. It gathers remaining elements into an array
C. It removes elements from the array
D. It reverses the order of elements in the array

12. What is JSON (JavaScript Object Notation)?

A. A lightweight data interchange format
B. A JavaScript method for creating objects
C. A way to define variables in JavaScript
D. A JavaScript library for animations

13. Write a code for get *sum of every positive element* in given array

```
const input = [1, -4, 12, 0, -3, 30, 42, -150];

//Write your code here


//output: 85
```

14. Write a code for abbreviate the given name and return the name initials.

```
const input = "John Ronald Reuel Tolkien"

//Write your code here

//output: JRRT
```

15. If you want to square each element of an array and return a new array with the squared values, which method would you use?

A. `reduce`
B. `filter`
C. `map`
D. All of the above

16. If you want to find the sum of all even numbers in an array, which method would you use?

A. `map`
B. `reduce`
C. `filter`
D. `forEach`

17. Write a code get each array elements length to a new array with map() method.

```
const names = ["Alice", "Bob", "Charlie"];

//Write your code here

console.log(nameLengths) // [5, 3, 7]
```

18. Write a code get each array elements capitalized with map() method.

```
const words = ["apple", "banana", "cherry"];
//Write your code here

console.log(capitalizedWords) //['APPLE', 'BANANA', 'CHERRY']
```

19. Which class indicates red colored border in bootsrap?

A. border warning
B. border border-danger
C. border border-warning
D. border-danger

20. Which class indicates lowercased text in bootsrap?

A. lowercase
B. text-lowercased
C. text-lowercase
D. txt-lowercased

21. Which class adds zebra-stripes to a table?

A. .table-zebra
B. .table-bordered
C. .table-striped
D. .even and .odd

22. What is Bootstrap?

A. A popular JavaScript framework
B. A server-side programming language
C. An advanced database management system
D. A responsive front-end web development framework

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Interview Questions 15m

1. What is the difference between Object.keys(), Object.values(), and Object.entries()?

2. What is the Object.freeze() method used for?

3. What is constructor functions in JavaScript?

4. Explain `reduce()` method in Javascript

Coding Challenge 20m

1. High Priced Product Categories

- You are given an array of objects representing a collection of products, each with a name, price, and category. Your task is to use map, filter, and reduce to calculate the average price of products in each category, and then return an array of objects containing only the categories that have an average price above 50.
- Sample input :

```
const products = [
  { name: "Product 1", price: 20, category: "Electronics" },
  { name: "Product 2", price: 30, category: "Clothes" },
  { name: "Product 3", price: 40, category: "Electronics" },
  { name: "Product 4", price: 50, category: "Clothes" },
  { name: "Product 5", price: 60, category: "Clothes" },
  { name: "Product 6", price: 70, category: "Electronics" },
  { name: "Product 7", price: 80, category: "Clothes" },
  { name: "Product 8", price: 90, category: "Electronics" },
];
```

- Expected outcome :

```
[
  { category: 'Clothes', average: 55 },
  { category: 'Electronics', average: 55 }
]
```

2. HR VS IT Department

- **Task :** You are given an array of objects representing a collection of employees, each with a name, salary, and department. Your task is to use map, filter, and reduce to calculate the average salary for each department and then return an array of objects containing only the departments that have an average salary above 65000.

- Sample input :

```
const employees = [
  { name: "John", salary: 50000, department: "IT" },
  { name: "Jane", salary: 60000, department: "HR" },
  { name: "Bob", salary: 55000, department: "IT" },
  { name: "Sophie", salary: 75000, department: "HR" },
  { name: "Mike", salary: 65000, department: "IT" },
  { name: "Emily", salary: 80000, department: "HR" },
  { name: "David", salary: 70000, department: "IT" },
];
```

- Expected outcome :

```
[
  { department: 'HR', average: 71666 }
]
```

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Coffee Break **10m**

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Video of the Week 10m

- Object Destructuring in Javascript

Retro Meeting on a personal and team level 10m

Ask the questions below:

- What went well?
- What could be improved?
- What will we commit to do better in the next week?

Closing 5m

- Next week's plan
- QA Session
