Name : P. Akshay Reddy(11r)

1. Uppercase

   - Question: Write a function that takes an array of strings as input and returns a new array with all strings converted to uppercase.

   - Hints: Use the toUpperCase() method.

   - Input Test Cases: ["hello", "world", "abc"], ["xyz", "abc", "def"]

   - Output Test Cases: ["HELLO", "WORLD", "ABC"], ["XYZ", "ABC", "DEF"]

Code:
```
let arr = ["hello","world","abc"]
let x = arr.map((a)=>
    a.toUpperCase()
)
console.log(x)


let arr1 = ["xyz","abc","def"]
let y = arr1.map((a)=>
    a.toUpperCase()
)
console.log(y)
```

Output:
```
[ 'HELLO', 'WORLD', 'ABC' ]
[ 'XYZ', 'ABC', 'DEF' ]
```

2. Substring

   - Question: Write a function that takes an array of strings as input and returns a new array with the first 3 characters of each string.

   - Hints: Use the substring() method.

   - Input Test Cases: ["hello", "world", "abc"], ["xyz", "abcdef"]

   - Output Test Cases: ["hel", "wor", "abc"], ["xyz", "abc"]

Code:

```
let arr = ["hello","world","abc"]
let x = arr.map((a)=>
    a.substring(0,3)
)
console.log(x)


let arr1 = ["xyz","abcdef"]
let x1 = arr1.map((a)=>
    a.substring(0,3)
)
console.log(x1)
```

Output:

['hel', 'wor', 'abc']
['xyz', 'abc']

3. Replace

   - Question: Write a function that takes an array of strings as input and returns a new array with all occurrences of "o" replaced with "0".

   - Hints: Use the replace() method.

   - Input Test Cases: ["hello", "world", "abc"], ["xyz", "foo", "bar"]

   - Output Test Cases: ["hell0", "w0rld", "abc"], ["xyz", "f00", "bar"]

Code:
```
let arr = ["hello","world","abc"]
let x = arr.map((a)=>
    a.replace("o","O")
)
console.log(x)

let arr1 = ["xyz","foo","bar"]
let x1 = arr1.map((a)=>
    a.replaceAll("o","O")
)
console.log(x1)
```

Output:
['hellO', 'wOrld', 'abc']
['xyz', 'fOO', 'bar']

4. Split

   - Question: Write a function that takes an array of strings as input and returns a new array with each string split into words.

   - Hints: Use the split() method.

   - Input Test Cases: ["hello-world", "abc-def"], ["xyz-abc-def"]

   - Output Test Cases: ["hello", "world", "abc", "def"], ["xyz", "abc", "def"]

Code:

```
arr=["hello-world","abc-def"]
let x=arr.map((a)=>a.split("-"))
let y = x.flat()
console.log(y)

 arr1=["xyz-abc-def"]
let x1=arr1.map((a)=>a.split("-"))
let y1 = x1.flat()
console.log(y1)
```

Output:
['hello', 'world', 'abc', 'def']
['xyz', 'abc', 'def']

5. Filter

   - Question: Write a function that takes an array of strings as input and returns a new array with only the strings longer than 5 characters.

   - Hints: Use the filter() method.

   - Input Test Cases: ["hello", "world", "abc", "defghi"], ["xyz", "abcdef"]

   - Output Test Cases: ["defghi"], ["abcdef"]

Code:
```
let arr = ["hello", "world", "abc", "defghi"]
let arr1 = ["xyz", "abcdef"]
let x = arr.filter((a)=>
    a.length>5
)
let x1 = arr1.filter((a)=>
    a.length>5
)
console.log(x)
console.log(x1)
```

Output:
```
[ 'defghi' ]
[ 'abcdef' ]
```

6.Map

   - Question: Write a function that takes an array of strings as input and returns a new array with all strings converted to uppercase and "!" appended.

   - Hints: Use the map() method.

   - Input Test Cases: ["hello", "world", "abc"], ["xyz", "abc"]

   - Output Test Cases: ["HELLO!", "WORLD!", "ABC!"], ["XYZ!", "ABC!"]

Code:
```
let arr = ["hello", "world", "abc"]
let arr1 = ["xyz", "abc"]
let x = arr.map((a)=>
    a.toUpperCase()+"!"
)
let x1 = arr1.map((a)=>
a.toUpperCase()+"!"
)
console.log(x)
console.log(x1)
```

Output:
```
[ 'HELLO!', 'WORLD!', 'ABC!' ]
[ 'XYZ!', 'ABC!' ]
```

7.Find

    - Question: Write a function that takes an array of strings as input and returns the first string containing "o".

    - Hints: Use the find() method.

    - Input Test Cases: ["hello", "world", "abc", "defghi"], ["xyz", "foo", "bar"]

    - Output Test Cases: "world", "foo"

Code:
```
let arr = ["hello", "world", "abc", "defghi"]
let arr1 = ["xyz", "foo", "bar"]
let x = arr.find((a)=>
    a.includes("o")
)
let x1 = arr1.find((a)=>
a.includes("o")
)
console.log(x)
console.log(x1)
```

Output:
```
hello
foo
```

8.Join

    - Question: Write a function that takes an array of strings as input and returns a new string with all strings joined by commas.

    - Hints: Use the join() method.

    - Input Test Cases: ["hello", "world", "abc"], ["xyz", "abc"]

    - Output Test Cases: "hello,world,abc", "xyz,abc"

Code:
```
let arr = ["hello", "world", "abc"]
let arr1 = ["xyz", "abc"]
let x = arr.join()
let x1 = arr1.join()
console.log(x)
console.log(x1)
```

Output:
```
hello,world,abc
xyz,abc
```