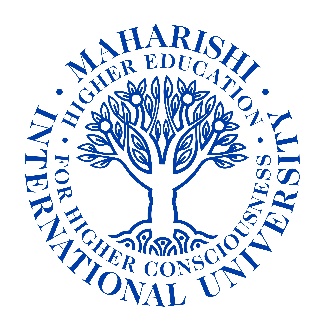
****

**Question 1)** Write a function called countOccurrences that takes a text and a character as parameters and returns the number of occurrences of that character in the text.

Return value: Number of occurrences.

**Answer:**

function countOccurrences(text, char){

let count = 0;

for(let i = 0; i <text.length; i++){

if(text[i] === char){

count++

}

}

return count;

}

let result = countOccurrences("maharishi international university", 'a');

console.log(result);

**Question 2)** Write a function called isPrime that takes a positive integer n as a parameter and returns true if n is prime and false otherwise.

Return value: true if n is prime, false otherwise

**Question 3)** Write a function called reverseString that takes a string as a parameter and returns the reverse of that string.

Return value: Reverse of the input string.

**Answer:**

function reverseString(string){

if(string ===null || string=== ""){

return string;

}else{

reverseString(string.substring(1))

console.log(string.charAt(0));

}

}

console.log(reverseString("United States of America"));

**Question 4)** Write a function called isPalindrome that takes a string as a parameter and returns true if the string is a palindrome (reads the same forwards and backwards), and false otherwise.

Return value: true if the string is a palindrome, false otherwise.

**Answer:**

**//creating a function name reverseString**

function reverseString(string){

if(string ===null || string=== ""){

return string;

}else{

return reverseString(string.substring(1))+ string.charAt(0);

}

}

**// comparing given string with reverseString.**

function isPalindrome(str){

let backward = reverseString(str);

if (str.toUpperCase() === backward.toUpperCase()){

return true;

}else{

return false;

}

}

console.log(isPalindrome("1215"));

**Question 5)** Write a function called power that takes two numbers as parameters, base and exponent, and returns the result of raising base to the power of exponent.

Return value: Result of base raised to the power of exponent.

**Answer:**

function power(a, b){

let result = Math.pow(a, b); //math built in function

return result;

}

console.log(power(5, 2));// output 25

**Question 6)** Write a function called capitalizeWords that takes a string as a parameter and returns the string with the first letter of each word capitalized.

Return value: String with first letter of each word capitalized.

**Answer:**

**//declaring the function signature with name**

function capitalizeWords(string){

**//splitting the text by empty space and storing to the stringArr**

let stringArr = string.split(" ");

**//initializing the new string**

let newString = "";

**//using for loop to transvers each element of arry until last**

for(let i = 0; i<stringArr.length; i++){

let result = stringArr[i].charAt(0).toUpperCase() +

stringArr[i].substring(1);

newString += result + " ";

}

console.log(newString.trim());

}

capitalizeWords("maharishi international university fairfield iowa usa 52556");

**Notes:**

**Example: 1**

**fun**ction calSum(x, y){

let sum = x+y;

return sum;

}

console.log(calSum(5, 10));

function calAve(x,y ){

let ave = calSum(x, y)/2;

return ave;

}

console.log(calAve(5,10));

**Example: 2**

function showMessage(from, text){

from = ' \* ' + from + ' \* ' + text;

alert(from +' : ' + text);

}

let from = "Raju";

showMessage(from, "Hello");

alert(from);

**Example: 3 Default values**

**If a function is called, but an argument is not provided, then the corresponding value becomes undefined.**

function showMessage(from, text){

from = ' \* ' + from + ' \* ' + text;

alert(from +' : ' + text);

}

let from = "Raju";

showMessage(from);

alert(from);

**Example: 4**

**We can specify the so-called “default” (to use if omitted) value for a parameter in**

**the function declaration, using =: Now if the text parameter is not passed, it will get the value "no text given".**

function calProduct(x, y=4){

let result = x \* y;

console.log(y+x);

return result;

}

console.log(calProduct(4));

**Example: 5 Calling a function as default**

function showMessage(from, text = anotherFunction()){

//another function() will be executed onl if no text is given

// its result becomes value of the text

}

**Example: 5 Calling an empty return**

is possible to use return without a value. That causes the function to

exit immediately.