



Subject: 2304CS431 – Client Side Scripting using Javascript

Faculty: Prof. Chirag K. Sakhrani

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Practical – 7: Implementation of if condition inside loops
1)
     Program:- WAP to find the factorial of given number. (A)
     Output:-
     const num = parseInt(prompt("Enter a number:"));
     if (num < 0) {
       console.log("Factorial of a negative number is not possible.");
     }
     else {
       let result = 1;
       for (let i = 1; i <= num; i++) {
         result *= i;
       console.log("Factorial of the given number is:", result);
     }
2)
     Program:- WAP to print the Fibonacci series of a number. (A)
     Output:-
     const num = parseInt(prompt("Enter the number of terms in the Fibonacci series:"));
     let a = 0;
     let b = 1;
     let fb = "";
    for (let i = 0; i < num; i++) {
       fb += a + (i < num - 1? ", ": ""); // Ternary operator to add comma if it's not the last element
       let c = a + b;
       a = b;
       b = c;
     }
     console.log("Fibonacci Series of the given number of terms is:", fb);
3)
     Program:- WAP to check whether the given no. is prime or not. (B)
     Output:-
```





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Appraoch 1:-
    let number = parseInt(prompt("Enter a number:"));
    if (number <= 1) {
       console.log("The given number is not a prime number");
    } else {
       let isPrime = true;
       for (let i = 2; i < number / 2; i++) {
         if (number % i === 0) {
           isPrime = false;
           break;
         }
       }
       if (isPrime) {
         console.log("The given number is a prime number");
       } else {
         console.log("The given number is not a prime number");
    }
    Approach2:-
    let number = parseInt(prompt("Enter a number:"));
    if (number <= 1) {
       console.log("The given number is not a prime number");
    } else {
       let isPrime = true;
       for (let i = 2; i <= Math.sqrt(number); i++) {
         if (number % i === 0) {
           isPrime = false;
           break;
         }
       if (isPrime) {
         console.log("The given number is a prime number");
         console.log("The given number is not a prime number");
       }
    }
4)
    Program:- WAP to check whether the given number is palindrome or not. (C)
    Ouput:-
```



Practical Solution

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```
let num = parseInt(prompt("Enter a number:"));
    let temp = num;
    let rev = 0;
    while (num > 0) {
      let rem = temp % 10;
      rev = sum * 10 + rem;
      temp = Math.floor(temp / 10);
    }
    if (num === rev) {
      console.log("The given number is a palindrome number");
    } else {
      console.log("The given number is not a palindrome number");
    }
5)
    Program:- WAP to print prime numbers between the two given numbers. (C)
    Output:-
    let start = parseInt(prompt("Enter the starting number:"));
    let end = parseInt(prompt("Enter the ending number:"));
    console.log(`Prime numbers between ${start} and ${end} are:`);
    for (let num = start; num <= end; num++) {
      if (num <= 1) {
         continue; // Skip numbers less than or equal to 1
      }
      let isPrime = true;
      for (let i = 2; i <= Math.sqrt(num); i++) {
         if (num % i === 0) {
           isPrime = false;
           break;
         }
      }
      if (isPrime) {
         console.log(num);
      }
```