

Consider the following programming problem:

Given a positive integer N . Calculate the Fibonacci series till the number N . If N is a part of the series, include N as well.

Please provide a solution for this problem in the R language.

Vorschläge anzeigen ▾



Code-Snippet

```
fibonacci_series <- function(N) {  
  # Initialize the series with the first two Fibonacci numbers  
  series <- c(0, 1)  
  
  # Generate the series until the next number exceeds N  
  while (tail(series, 1) < N) {  
    series <- c(series, sum(tail(series, 2)))  
  }  
  
  # If N is in the series, include it  
  if (N %in% series) {  
    series <- series[1:which(series == N)]  
  }  
  
  return(series)  
}  
  
# Example usage:  
N <- 10  
result <- fibonacci_series(N)  
print(result)
```

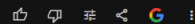
Verwende den Code [mit Vorsicht](#).



This code defines a function `fibonacci_series` that takes a positive integer N as input and returns the Fibonacci series up to N . Here's how it works:

- Initialization:** The series is initialized with the first two Fibonacci numbers, 0 and 1.
- Series Generation:** The series is generated using a `while` loop. In each iteration, the next Fibonacci number is calculated by summing the last two numbers in the series. The loop continues until the next number exceeds N .
- Inclusion of N :** If N is found in the series, the series is truncated to include only the numbers up to N .
- Return:** The final series is returned.

The example usage demonstrates how to call the function with a specific value of N and print the resulting Fibonacci series.



Prompt hier eingeben



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