

J I'm working on a R programming problem. The current program below is not working well. Can you help in fixing this program with as few changes as possible? Below I first provide the problem description and then the current buggy program.

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.

Buggy Program:

```
fibonacci_index <- function(number) {
  if (number < 0) {
    stop("Keine gültige Fibonacci-Zahl")
  }

  index <- 1
  fib <- 1
  f1 <- 1
  f2 <- 0

  while (fib <= number) {
    if (fib = number) {
      return(index)
    }
    f1 <- fib
    fib <- f1 + f2
    f2 <- f1
    index <- index + 1
  }

  stop("Keine gültige Fibonacci-Zahl")
}

number <- as.numeric(readline(prompt = "Bitte geben Sie eine Zahl ein: "))
tryCatch({
  index <- fibonacci_index(number)
  cat("Die Zahl ist Zahl", index, "der Fibonacci-Folge.\n")
}, error = function(e) {
  cat(e$message, "\n")
})
```

Can you fix the above buggy program? Modify only the code within the function. Make sure that you make minimal possible changes needed to fix the program.

Vorschläge anzeigen ▾ 🔊

✦ The primary issue in the provided code lies in the condition check within the `while` loop. You're using the assignment operator (`=`) instead of the comparison operator (`==`). This means the code is always setting `fib` to `number` and then exiting the loop, leading to incorrect results.

Here's the corrected version with the minimum necessary changes:

Code-Snippet

```
fibonacci_index <- function(number) {
  if (number < 0) {
    stop("Keine gültige Fibonacci-Zahl")
  }

  index <- 1
  fib <- 1
  f1 <- 1
  f2 <- 0

  while (fib <= number) {
    if (fib == number) { # Corrected condition using ==
      return(index)
    }
    f1 <- fib
    fib <- f1 + f2
    f2 <- f1
    index <- index + 1
  }

  stop("Keine gültige Fibonacci-Zahl")
}
```

Verwende den Code [mit Vorsicht](#).



By using the comparison operator (`==`), the code will correctly check if `fib` is equal to `number` and return the corresponding index if it is.

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Prompt hier eingeben

