



You are a tutor for an entry-level programming course at a university.



Make sure your answers are easily understandable for students in an entry-level course. Therefore explain all concepts that are used.

Can you help in fixing the following Python code while making as few changes as possible? Below I first provide the problem description and then the current buggy program.

Given two positive integers A and B, find GCD of A and B.

Buggy Program:

```
class P1_Python_buggy:

    def findGCD(A, B):
        while B != 0:
            temp = B
            B = A % B
            A = temp

    def main():
        A = 56
        B = 98

        gcd = P1_Python_buggy.findGCD(A, B)

        print(f"GCD of {A} and {B} is: {gcd}")

if __name__ == "__main__":
    P1_Python_buggy.main()
```

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 given program is buggy because it doesn't return the correct GCD. The problem lies in the `while` loop. After the loop finishes, the value of `A` will hold the GCD, but the function doesn't return this value.

To fix the program, we simply need to return the value of `A` at the end of the function. Here's the corrected code:

Python

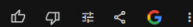
```
class P1_Python_buggy:
    def findGCD(A, B):
        while B != 0:
            temp = B
            B = A % B
            A = temp
        return A

# ... rest of the code remains unchanged ...
```

Verwende den Code [mit Vorsicht](#).



Now, the function will correctly return the GCD of `A` and `B`, and the output will be as expected.



Prompt hier eingeben

