

```
public static int greatestCommonDivisor(int number1, int number2) {  
    int temp = number1;  
    while (temp != 0) {  
        if (number1 < number2) {  
            temp = number1;  
            number1 = number2;  
            number2 = temp;  
        }  
        temp = number1 % number2;  
        if (temp != 0) {  
            number1 = number2;  
            number2 = temp;  
        }  
    }  
    return number2;  
}
```

The diagram illustrates the control flow of the provided Java code. It uses colored circles as nodes and lines as edges to show the sequence of execution. The flow starts at the function entry, goes to the initialization of temp, then enters the while loop. Inside the loop, it branches to an if statement. The condition of the if statement is highlighted in yellow. Depending on the condition, it follows different paths: one path leads to a swap of number1 and number2, and another path leads to a modulo operation. Both paths eventually merge and lead to the return statement. The flow ends at the function exit.