

Source Code:

```
package demo;

import java.util.Scanner;

public class AccessModifiers {
    private int privateVar;
    protected int protectedVar;
    public int publicVar;

    public AccessModifiers(int privateVar, int protectedVar, int publicVar) {
        this.privateVar = privateVar;
        this.protectedVar = protectedVar;
        this.publicVar = publicVar;
    }

    private void privateMethod() {
        System.out.println("This is a private method.");
    }

    protected void protectedMethod() {
        System.out.println("This is a protected method.");
    }

    public void publicMethod() {
        System.out.println("This is a public method.");
    }

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        System.out.print("Enter a value for privateVar: ");
        int privateVar = input.nextInt();

        System.out.print("Enter a value for protectedVar: ");
        int protectedVar = input.nextInt();

        System.out.print("Enter a value for publicVar: ");
        int publicVar = input.nextInt();

        AccessModifiers obj = new AccessModifiers(privateVar, protectedVar,
publicVar);
```

```
System.out.println("privateVar: " + obj.privateVar); // This will not compile since privateVar is private
```

```
System.out.println("protectedVar: " + obj.protectedVar);
```

```
System.out.println("publicVar: " + obj.publicVar);
```

```
// obj.privateMethod(); // This will not compile since privateMethod is private
```

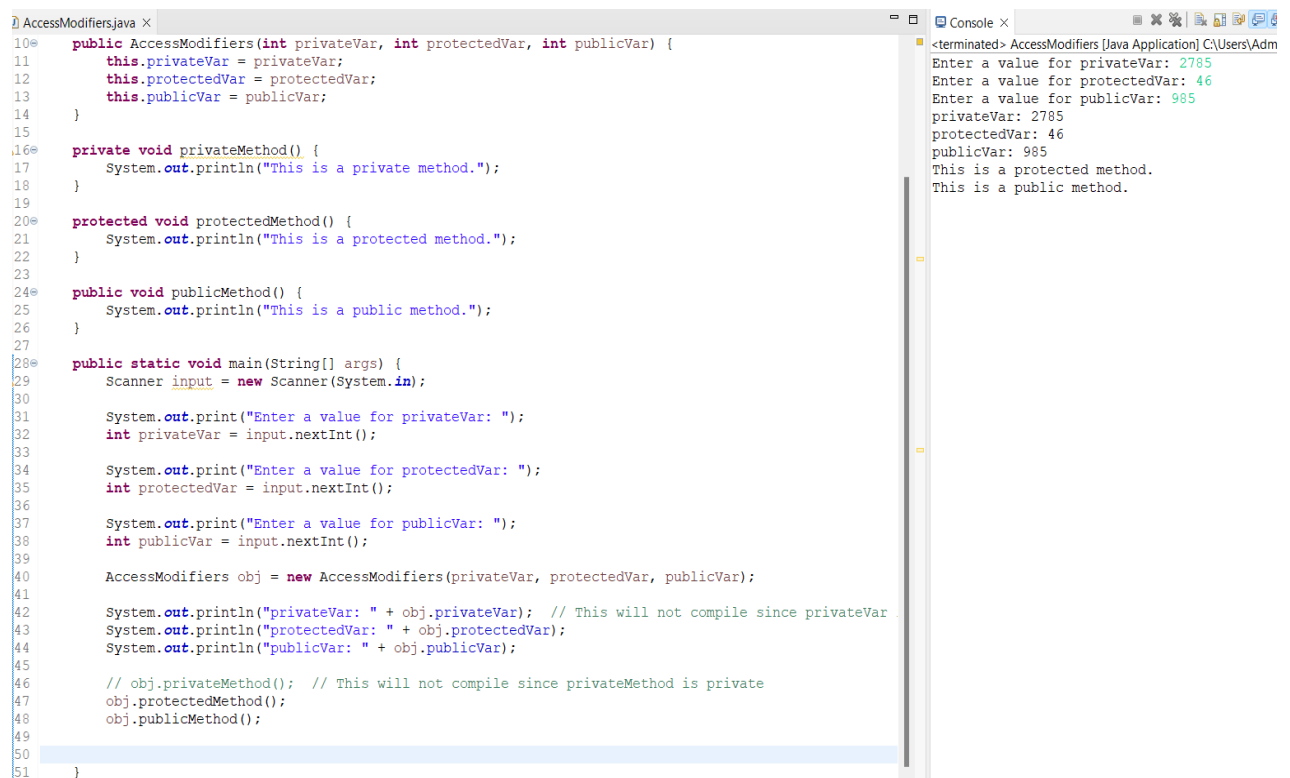
```
obj.protectedMethod();
```

```
obj.publicMethod();
```

```
}
```

```
}
```

Outputs:



The screenshot displays a Java IDE with two panels. The left panel shows the source code of `AccessModifiers.java`, and the right panel shows the console output.

Source Code:

```
10 public AccessModifiers(int privateVar, int protectedVar, int publicVar) {
11     this.privateVar = privateVar;
12     this.protectedVar = protectedVar;
13     this.publicVar = publicVar;
14 }
15
16 private void privateMethod() {
17     System.out.println("This is a private method.");
18 }
19
20 protected void protectedMethod() {
21     System.out.println("This is a protected method.");
22 }
23
24 public void publicMethod() {
25     System.out.println("This is a public method.");
26 }
27
28 public static void main(String[] args) {
29     Scanner input = new Scanner(System.in);
30
31     System.out.print("Enter a value for privateVar: ");
32     int privateVar = input.nextInt();
33
34     System.out.print("Enter a value for protectedVar: ");
35     int protectedVar = input.nextInt();
36
37     System.out.print("Enter a value for publicVar: ");
38     int publicVar = input.nextInt();
39
40     AccessModifiers obj = new AccessModifiers(privateVar, protectedVar, publicVar);
41
42     System.out.println("privateVar: " + obj.privateVar); // This will not compile since privateVar
43     System.out.println("protectedVar: " + obj.protectedVar);
44     System.out.println("publicVar: " + obj.publicVar);
45
46     // obj.privateMethod(); // This will not compile since privateMethod is private
47     obj.protectedMethod();
48     obj.publicMethod();
49
50 }
51 }
```

Console Output:

```
<terminated> AccessModifiers [Java Application] C:\Users\Adm
Enter a value for privateVar: 2785
Enter a value for protectedVar: 46
Enter a value for publicVar: 985
privateVar: 2785
protectedVar: 46
publicVar: 985
This is a protected method.
This is a public method.
```

```
AccessModifiers.java × Console ×
1 package demo;
2
3 import java.util.Scanner;
4
5 public class AccessModifiers {
6     private int privateVar;
7     protected int protectedVar;
8     public int publicVar;
9
10    public AccessModifiers(int privateVar, int protectedVar, int publicVar) {
11        this.privateVar = privateVar;
12        this.protectedVar = protectedVar;
13        this.publicVar = publicVar;
14    }
15
16    private void privateMethod() {
17        System.out.println("This is a private method.");
18    }
19
20    protected void protectedMethod() {
21        System.out.println("This is a protected method.");
22    }
23
24    public void publicMethod() {
25        System.out.println("This is a public method.");
26    }
27
28    public static void main(String[] args) {
29        Scanner input = new Scanner(System.in);
30
31        System.out.print("Enter a value for privateVar: ");
32        int privateVar = input.nextInt();
33
34        System.out.print("Enter a value for protectedVar: ");
35        int protectedVar = input.nextInt();
36
37        System.out.print("Enter a value for publicVar: ");
38        int publicVar = input.nextInt();
39
40        AccessModifiers obj = new AccessModifiers(privateVar, protectedVar, publicVar);
41
42        System.out.println("privateVar: " + obj.privateVar); // This will not compile since privateVar
43        System.out.println("protectedVar: " + obj.protectedVar);
```

<terminated> AccessModifiers [Java Application] C:\Users\Adm
Enter a value for privateVar: 25
Enter a value for protectedVar: 8
Enter a value for publicVar: 596
privateVar: 25
protectedVar: 8
publicVar: 596
This is a protected method.
This is a public method.