What is encapsulation?

Saying: Variable means what object knows method means what object does.

Here’s the logic behind encapsulation:

For example we have one class ‘A’ and it has one public variable as ‘age’. By default all class variable as ‘0’ value. Though we can create an instance of an ‘A’ class and can change the value of age with the help of class’s object **say a.age =5. And similar way we can get the value with the help of object.**

Although above is legal way to change the class variable with the help of class object.

But encapsulation says that one should not change/set or get the variable value with object. It says that variable value should only be changed (set or get) through the class methods. So as per encapsulation, class variable are tied with class methods.

Also encapsulation says that the variables should be made private so these can’t be accessed outside the class. If someone outside the class wants to use these variable then he or she has to access these by class method which are declared as public.

So in order to implement encapsulation, getters and setters (public methods) are used.

**Encapsulation also means data hiding from outside world’s interference. That means all class data members should be private. Otherwise any one can access the data members. That means binding the data members with methods.**