**W03 Assignment: Explain Encapsulation**

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Encapsulation is an act that enclosing something. It is hiding data from any exposure. Just like a bank account balance, it is very important that it is always be hidden so that it can be protected and being safe from any kinds of hacking and stealing. The encapsulation is one way of that method that makes it hide. In our week 3 activity, we have a chance to practice an encapsulation by setting its variables to private and there is only a public class method that can access that private variables. Now the program has no direct access to the private variables like bank account balance, the program will not be able to change and can’t modify directly to the value inside, but the program has a public class and method and variable that have access to those private variables. So the program will not directly access to the private variables but it can access through public methods. These will protect of the private data for direct exposure. The method of encapsulation is to protect it. The code below is one of the example of encapsulation, the private variables like \_book, \_chapter, \_verse was set to private, that the public method cant access it directly, but the public method has set public variables that can access the private variable by setting it to other value, just like the \_book as private, the program cant access it directly but by setting the value as ‘book’, now the program cant access and view its content. So the ‘\_book’ as private variable was not or cannot be open directly but it can be access through a channel of ‘book’.

public class Reference

{

    private string \_book;

    private int \_chapter;

    private int \_verse;

    public Reference(string book, int chapter, int verse)

    {

        \_book = book;

        \_chapter = chapter;

        \_verse = verse;

    }