# What is Encapsulation?

Encapsulation is an important concept in object-oriented programming. It helps protect and control how data is accessed within a class and ensures that variables can only be accessed or changed through specific methods. This reduces the chance of errors, prevents unintended changes from occurring, and makes the code easier to maintain and update. One key benefit is that it hides the internal workings of a class and keeps updates centralized to that class. For example, in the Scripture Memorizer Reference class, the book, chapter, and verse variables are private, ensuring that references are set and displayed through the constructor and controlled methods so that only valid verses are displayed.

Below is an example of how references are set and displayed by accessing the constructor and GetDisplayText() method within the Reference class.

**Reference.cs**

private string \_book;

private int \_chapter;

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

{

\_book = book;

\_chapter = chapter;

\_verse = verse;

\_endVerse = -1;

}

public string GetDisplayText()

{

if (\_endVerse > 0)

{

return $"{\_book} {\_chapter}:{\_verse}-{\_endVerse}";

}

else

{

return $"{\_book} {\_chapter}:{\_verse}";

}

}