Life - Project Report

CAB201 – Semester 2 2020

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# **Encapsulation**

Encapsulation is the the process of enclosing one or more items by creating a new class and putting all the methods in it. This allows for the main method to be more efficient

# Inheritance

This allows for creating new classes and using them repeatedly to modify the behaviours in other classes. In my code I have used different classes for the diffferent shapes requeired which are called given the names: Cell Structure , Ellipse structure, Rectangle structure and Checking Shapes. Having these separate classes allows for better debugging and can be caled in the main program making it more efficient by reducing the amount of repeated code.

# Polymorphism

Polymorphism is where objects of a derived class can be treated as objects of a base class in methods. In my code the FourthParam method is used in both the structures for rectangle and ellipse and overriden to meet the seed method. This sllows for less lines of code and improves the code efficiency.

# Exception Handling

Using the try, catch and finally functions it allows to deal with unexpected errors and handle failures. Exceptions can then be given to the user input to allow for error messages or to loop back again so that errors can be minimized. In my code exception handling methods have been used throughout to catch any errors that can form during the build.