CSCI3180 Assignment 2 Report
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1. Using your codes for Task 2, compare polymorphism obtained with duck typing and with inheritance.

Polymorphism is a mechanism that allows us to call the same method on different objects and get different results. Duck typing allows us to ignore what exact type the object is, if that object have the method call, then it should perform the function normally. Referring to the ruby code in task 2, polymorphism obtained with ducking typing can allows us to create a list to store many different type of object and call the method directly. (person_list store three objects that with different type, and iterates the list and call person.to_s directly).

While with inheritance like java this kind of operation is not supported directly. Firstly, it need to declare a list with specific type. In task 2, I declared it as Object type and store all three persons. It can not directly call person.to_s declared in that class. Because the method does not define in the class type Object. So, it is either create an abstract class that define the method or use an method that is already defined in the type Object, so I used toString() which already defined in class Object.

2. Using your codes for Task 2, give a scenario where the Ruby implementation is better than the Java/C++ implementation. Briefly state your reason.

Since ruby have modules, it allows all the object share the same modules code and invoke the method. So when processing large amount of object and classes, Ruby is better because everything in Ruby is object and ducking typing, modules allows the code become more readable and less restriction.