CSCI 3180 Assignment 2
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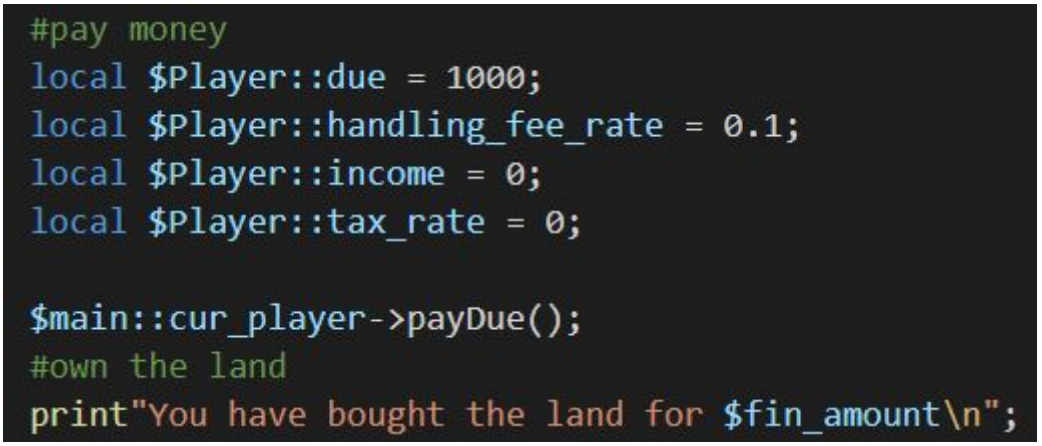
1. Advantages of dynamic scoping in using Perl to implement the simplified Monopoly game as compared to the corresponding codes in Python.

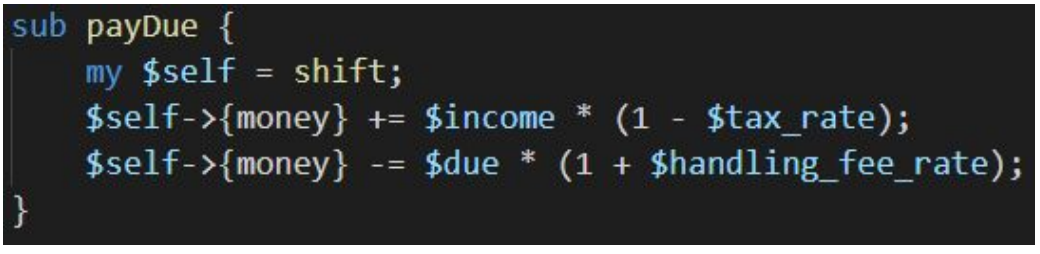
   In my opinion, the only advantage is the writability, as it is convenient and provides flexibility than static scoping. Some parameters are passed to a subprogram which has been defined in the caller. With dynamic scoping, none of those are needed to be passed.

   But it is hard to read and debug, as you need to know all the meanings of reference to non-local variables throughout the whole program. The bugs cannot be detected by compiler.

   With the assignment requires exact same structure in Perl implementation, there is no dynamic scoping usage in my program with “my”, the lexical ones (local or global variable), as it is not really necessary to have those usage.

   However, with “local”, dynamic scoping makes functions behave like a mathematical functions. So, it seems to have higher writability in writing programs. The details will be discussed in Q2.





   It is convenient, as in “Land.pm” we only need to “set” the “parameters” of the Player, and the corresponding payDue(). Then, we just need to call the methods in object, without considering parameters passing issues.
   Just like y = mx +c, we are setting m and c temporarily, and not the x itself.

2. Discuss the keyword “local” in Perl, and giving your own opinions.
   “local” is actually masking the object variable, which means that we are not really changing the class variable. Local is a dynamically scoped local variable, allowing the dynamic scoping between packages after declared.

   But to me, it could have the exact same effect without dynamic scoping, just like python, changing the class variable directly, and runs the functions normally, same effect. Using y = mx+c as example, we are changing m & c permanently, but everytime we use the function, we change that. Thus, no difference in effects.

```
Player.due = 1000
Player.handling_fee_rate = 0.1
Player.income = 0
Player.tax_rate = 0
cur_player.payDue()
print("You have bought the land for {}".format(fin_amount))
cur_player.printAsset()
return 1
```