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CS 141 – Concepts in Programming Languages 1

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Homework 2

1. A virtual method table is an array to holds the pointers to functions that will be run and determined at run-time. The vtables help determine which function to run from a certain class for an object type. Vtables help programmers more control over efficiency.
2. The disadvantage of virtual method call is that it is slower since the function branch is determined at run-time instead of being determined during compile time. This extra step to determine which function slows the program.
3. Non-virtual functions are determined during compile time and are therefore faster to execute. Virtual functions are determined during run-time and are more dynamic. Pure virtual functions are for implementation and are abstract so you cannot instantiate an object that is purely virtual.