

## CS250 Exam #3 Review Material

- Inheritance
- Superclass
- Subclass
- Base class
- Derived class
- is-a
- has-a
- composition
- overloading
- public vs private vs protected members in general
- dynamic memory (new, delete, heap)
- this, \*this
- memory leak
- copy constructor
- memberwise assignment
  - difference between `Person cTempPerson = cPerson` and `cTempPerson = cPerson`
- destructor
- regular variable versus pointer variable (`int` versus `int *`, `char` versus `char *`, ...)
- `sizeof`
- address operator `&`
- dereference operator `*`, `->`
- pointer operations (`pInt + 2`, `*(pInt + 2)`, `++pInt`, `pInt++...`)
- activation record
- difference between arrays and pointers
- writing code using array notation versus pointer notation
- pointers as function arguments
- null pointer
- strings as `char *`
- `cout << pName`; versus `cout << *pName`;
- problem with `pName = "joe"`;
- `int *` versus `const int *` versus `int * const`