Homework #2 – Information Hiding with Inheritance

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1. The publicly inherited classes PublicManagement and its child PublicGeneralManager utilize the access-specifier public when inheriting from their parent classes. You can see the public data from the base class Employee being utilized by PublicManagement and PublicGeneralManager in lines 56 and 116 respectively. You can see the public functions from the base class being utilized in PublicManagement and PublicGeneralManager in lines 63 and 123 respectively. The clients of both the classes utilizes the data and functions of the base class as data and functions of the derived classes in PublicManagement and PublicGeneralManager in lines {198, 204} and {240, 246}
2. In PublicManagement and its child PublicGeneralManager you can see the protected data and functions from the base class being accessed utilized by the derived classes in lines {57,64} and {117,124} respectively.
3. In PublicManagement and its child PublicGeneralManager you can see the private data and functions from the base class cannot be access by the derived classes in lines {58,65} and {118,125} respectively. The are inaccessible because of the private declaration in employee
4. The protected inherited classes ProtectedManagement and its child ProtectedGeneralManager utilize the access-specifier protected when inheriting from their parent classes. You can see the public and protected data and functions from the base class can be access by the derived classes in lines {76-77,83-84} and {136-137,143-144} respectively. You can see in the clients of both of the classes that the public and protected data and functions from the base class are treated as protected data and functions which cannot be accessed by clients as shown in lines {211-214,218-219} and {253-258,260-261}
5. In ProtectedManagement and ProtectedGeneralManger you can see that the private data and functions from the base class are inaccessible by the derived classes in lines {78-79,85-86} and {138-139,145-146}. You can also see in the clients that the data and functions from the base class are treated as private which cannot be accessed by clients as shown in lines {215-216,220-221} and {257-258,262-263}.
6. The privately inherited classes PrivateManagement and its child PrivateGeneralManager utilize the access-specifier private when inheriting from their parent classes. You can see in PrivateManagement who inherits directly from the base class Employee can access the public and protected data and functions from Employee in lines 96-97 and 103-104. In PrivateManagement’s client you can see that the public and protected data and functions from the base class are treated as private in lines 226-229 and 233-234. in PrivateGeneralManager that inherits from PrivateManagement you can see that the data and functions from the base class Employee are inaccessible in lines 158-162 and 169-173. It is protected by the access-specifier private when PrivateManagement inherited from Employee
7. You can see in PrivateManagement and PrivateGeneral Manager that the private data and functions of the base class Employee cannot be access by the derived classes in lines {98-99,105-106} and {164-165,175-176}.