**PROTOTYPE DESIGN RATIONALE**

The prototype consists of four types of appointment; in-person appointment with nurse assistance, in-person without nurse assistance, virtual with video call and virtual without video call. The prototype has four classes; AppDetails, InPerson and Virtual. Each class serves as each type of appointment. The base class is the AppDetails class that works as the virtual without video call type of appointment.

Inheritance refers to the ability of one class to derive identical functionality of another class and add new functionality of its own (Ibm.com, 2022).

This has been achieved by the child classes; Video and InPerson that both inherit from the parent class, AppDetails. This enables the child classes to use variables in the parent class and its methods to enable functionality. The InPerson and from Parent class AppDetails thus allowing it to use variables declared and methods created in the two classes that is; InPatient() and AppDetails () respectively.

The Video class then add to it an email variable to enable for creation of virtual appointments with video call. The InPerson class then adds a room variable to allow for the creation of in-person appointments without nurse assistance. The InpPerson class adds nurseId variable to enable the creation of in-patient appointments that need nurse assistance.

The system implements Interface class ICostable to calculate the cost. The cost calculations are done inside the other classes. The class is then called in the form in order to display the cost of application

References

Ibm.com. (2022). *IBM Developer*. [online] Available at: https://developer.ibm.com/articles/the-class-diagram

‌What is Polymorphism (2019). *What is Polymorphism?* [online] Computerhope.com. Available at: https://www.computerhope.com/jargon/p/polymorphism.htm.

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