Assignment 2

1. Given an entity named **Television,** identify its attributes and explain how will you do Abstraction?

Attributes:

* Screen
* Body
* Remote System
* Speaker
* Connectivity modules (wi-fi, Bluetooth)
* Processor
* IO ports
* Ram

Attributes such as connectivity modules, processor, ram these are the internal and complex implementation. They are hidden only necessary attributes such as screen, body, IO Ports, remote system are exposed to external environment.

1. Given an entity named **Hospital,** explain Encapsulation with respect to it.

Encapsulation it is process of bundling of data along with the methods that are operated on that data, into a single unit

Patients, doctors, nurse are the attributes of hospital each attribute have personal behaviour for example doctors examine the patients, Taking the patients details, operating on them. In this way the encapsulation process undergoes in hospital.

1. Given an entity named **Traffic Signal,** explain Polymorphism with respect to it.

Polymorphism is one of the core concepts of OOPs and describes situations in which objects occurs in several different forms.

Traffic signal have different colour like red, yellow and green. Different signals indicate different functions such as red indicates vehicles to stop, yellow to get ready and green indicates to go.

1. Given an entity named **Broad Band Connection,** explain inheritance with respect to it.

Inheritance refers to capability of a class to derive properties and characteristics from another class.

Broadband system has its properties like High-speed data downloading facility mac codes, data server this properties are transformed to different systems or we can say child system like router, smartphones, tv connection through wire or wireless medium.

1. Given an entity named **Mobile Phone,** identify its static & dynamic attributes.

Static attributes:

* Camera
* Battery
* USB cables
* Cell phone body
* Sim tray
* Screen protection

Dynamic attributes:

* Memory
* Display
* Processor
* Cooling system
* Sim module
* Wi-fi modem