**Inheritance :**

In Object-oriented programming languages, **inheritance** is a way to add functionality.

Inheritance is a mechanism in which one class acquires the property of another class. For example, a child inherits the traits of his/her parents. Inheritance is important since it leads to reusability of code.

**Example 1 :**

*//Parent class*

Class Amazon

{  
String Owner

Integer Income

String Service

}

*//Child Classes*

Class PrimeVideo : Amazon

{

String SeriesName

String MovieName

Function OfflineDownload(){}

}

Class PrimeMusic : Amazon

{

String[] Songs

Function OfflineDownload(){}

}

Class Kindle : Amazon

{

String[] Books

String Author

Function PurchaseBooks(){}

}

**Example 2 :**

*//Parent Class*

Class SocialMedia

{

String UserName  
 Integer Followers

String RegisteredMobileNumber

}

*//Child Classes*

Class Instagram : SocialMedia

{

Function PutStories(){}

}

Class SnapChat : SocialMedia

{

String[] Filters

Function PutSnaps(){}  
}

Class TicTok : SocialMedia

{

String[] DubSmash

Function ShootVideo(){}  
}

**Example 3 :**

*//Parent Class*

Class Computer

{  
Integer Cost

Interger RAM

String BrandName

Boolean Mobility

Boolean Portability

}

*//Child Classes*

Class Laptop : Computer

{

Integer Battery

Function Charging(){}

}

Class Desktop : Computer

{

Function Assembling (){}

Integer MonitorSize

Integer UPS\_Power

}

**Example 4 :**

*//Parent Class*

Class OLA

{

Integer BasePrice

String Source

String Destination

String DriverName

}

*//Child Classes*

Class OLABike : OLA

{

Function WearHelmet(){}

}

Class OLAMini : OLA

{

Function WearSeatBelt(){}

}

**Example 5 :**

*//Parent Class*

Class Machine

{

Integer Voltage

Integer Load

String CompanyName

}

*//Child Classes*

Class Refrigerator : Machine

{

Function Cooling(){}

Boolean HasFreezer

}

Class AC : Machine

{

Function Cooling(){}

Integer Temperature

}

Class TV : Machine

{

Function ChannelChange(){}

Integer ScreenSize

String DisplayType

}

**Polymorphism :**

**Polymorphism** is a concept by which we can perform a single action in different ways. ... So **polymorphism** means many forms.

**Example 1 :**

Class Medicine

{

String[] MedicineNames

Function Cure(Vicks)

{

Cold Protection

}

Function Cure(Paracetamol)

{

Fever Protection

}

Function Cure(Disprin)

{

Headache Protection

}

}

**Example 2 :**

Class Remote

{

Function RemoteControl(TV\_Remote)

{

Channel Change

}

Function RemoteControl (AC\_Remote)

{

Temperature Control

}

}

**Example 3 :**

Class Communication.Services

{

String Person1

String Person2

Function Communication (Chat)

{

Message

}

Function Communication (Call)

{

Voice

}

Function Communication (Gestures)

{

Sign Language

}

}

**Example 4 :**

Class Payment.Services

{

Function FundTransfer(){}

Integer AccountNumber

Interger Amount

String IFSCCode

}

Class Paytm : Payment.Services

{

Function FundTransfer()

{

Process to do payment through Paytm

}

}

Class PhonePay : Payment.Services

{

Function FundTransfer()

{

Process to do payment through PhonePay

}

Class InternetBanking : Payment.Services

{

Function FundTransfer()

{

Process to do payment through InternetBanking

}

}

**Example 5 :**

Class Race

{

Function Racing(People)

{

Marathon

}

Function Racing (Bike)

{

MotoGP

}

Function Racing (Car)

{

Formula One

}

}