Abstraction with Youtube Videos

Video

_title : string
_author : string
_length : int
_comments : List<Comment>

Video(title, author, length)
Video(title, author, length, comments)
AddComment(comment) : void
NumberOfComments() : int
DisplayInfo() : void

Comment

_name : string
_text : string

Comment(name, text)
DisplayComment() : void

Encapsulation with Online Ordering
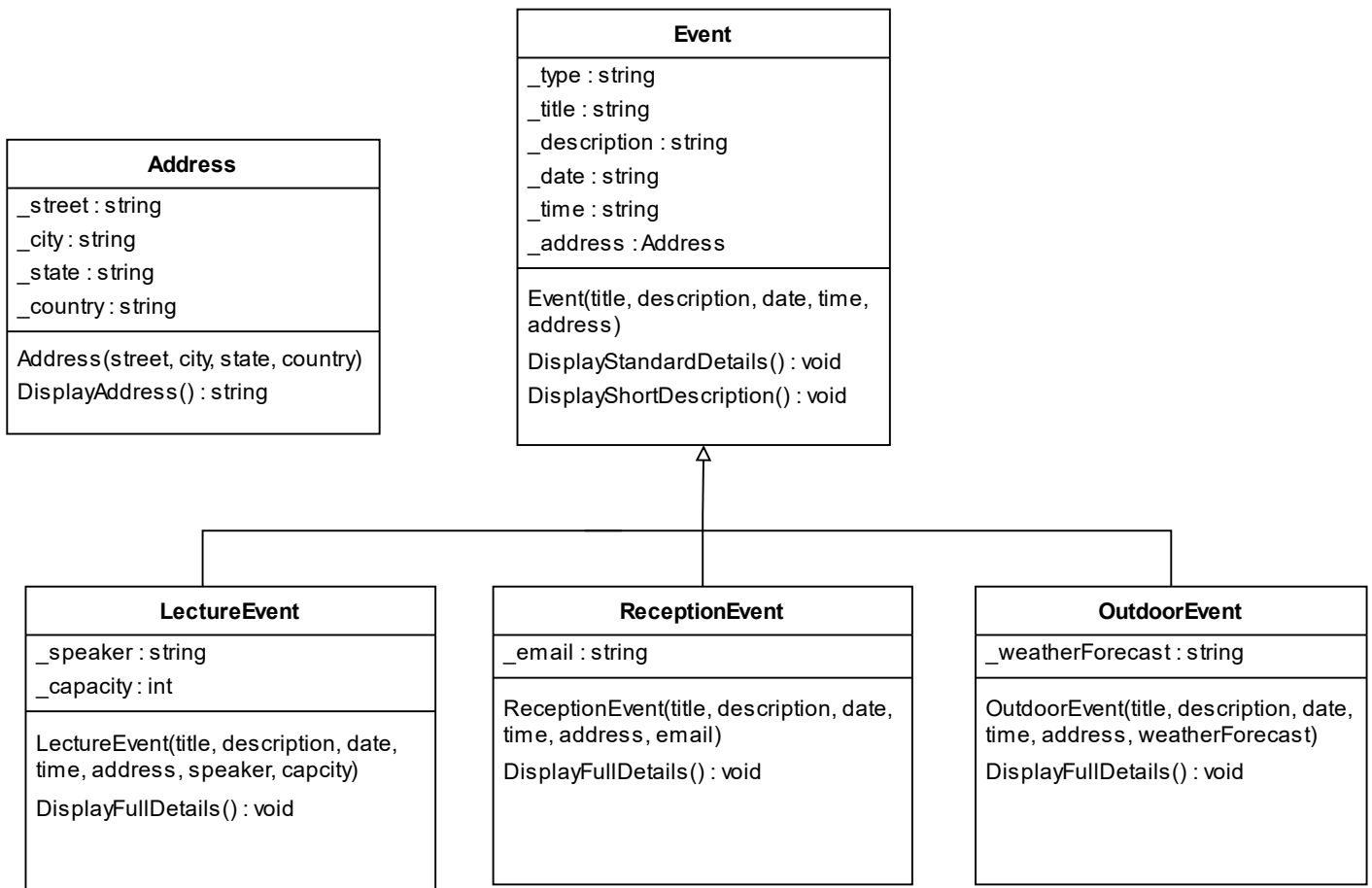
The word home = usa

Address

_street : string
_city : string
_state : string
_country : string
_home : string
_homeStates : List<string>

Address(street, city, state, country)
SetHome(countryName : string) : void
SetHomeStates(states : List<string>) : void
InHome() : bool
GetAddress() : string

Customer

_name : string
_address : Address

Customer(name, address)
LeaveInHome() : bool
DisplayCustomerInfo() : void

Product

_name : string
_productId : int
_price : double
_quantity : int

Product(name, productId, price)
SetQuantity(quantity: int) : void
CalculateCost() : double
DisplayProductInfo() : void

Order

_customer : Customer
_products : List<Product>
_homeShippingCost : double
_nonHomeShippingCost : double

Order(customer, product)
Order(customer, products)
SetHomeShippingCost(price : double) : void
SetNonHomeShippingCost(price : double) : void
AddProduct(product : Product) : void
CalculateTotalCost() : double
DisplayPackingLabel() : void
DisplayShippingLabel() : void

Inheritance with Event Planning

Event

_type : string
_title : string
_description : string
_date : string
_time : string
_address : Address

Event(title, description, date, time, address)
DisplayStandardDetails() : void
DisplayShortDescription() : void

Address

_street : string
_city : string
_state : string
_country : string

Address(street, city, state, country)
DisplayAddress() : string

LectureEvent

_speaker : string
_capacity : int

LectureEvent(title, description, date, time, address, speaker, capcity)
DisplayFullDetails() : void

ReceptionEvent

_email : string

ReceptionEvent(title, description, date, time, address, email)
DisplayFullDetails() : void

OutdoorEvent

_weatherForecast : string

OutdoorEvent(title, description, date, time, address, weatherForecast)
DisplayFullDetails() : void

Polymorphism with Excercise Tracking

Activity

_type : string
_date : int
_length : int

Activity(date, length)
Distance() : double
Speed() : double
Pace() : double
GetSummary() : string

RunningActivity

_distance : double

RunningActivity(date, length, distance)
Distance() : double
Speed() : double
Pace() : double

CyclingActivity

_speed : double

RunningActivity(date, length, speed)
Distance() : double
Speed() : double
Pace() : double

SwimmingActivity

_laps : int

RunningActivity(date, length, laps)
Distance() : double
Speed() : double
Pace() : double