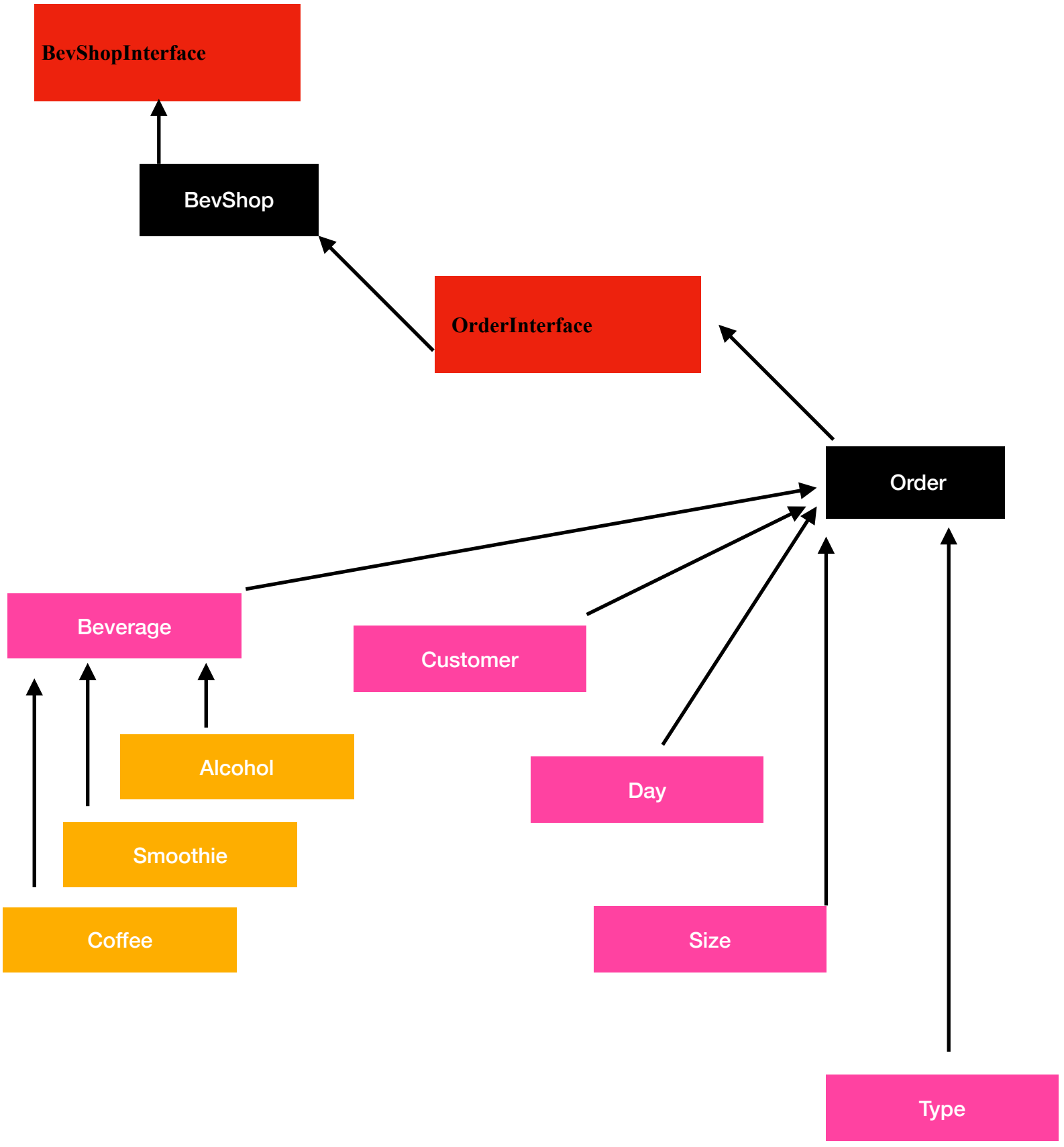
Montgomery College
CMSC 203
Assignment 6 Design


BevShopInterface
BevShop
OrderInterface
Order
Beverage
Customer
Alcohol
Day
Smoothie
Coffee
Size
Type

Class	<<Interface>> BevShopInterface
Fields	- MAX_FRUIT: int - MAX_ORDER_FOR_ALCOHOL: int - MAX_TIME: int - MIN_AGE_FOR_ALCOHOL: int - MIN_TIME: int
Methods	+ findOrder(orderNo: int): int + getCurrentOrder(): Order + getMaxNumOfFruits(): int + getMaxOrderForAlcohol(): int + getMinAgeForAlcohol(): int + getNumOfAlcoholDrink(): int + getOrderAtIndex(index: int): Order + isEligibleForMore(): boolean + isMaxFruit(numOfFruits: int): boolean + isValidAge(age: int): boolean + isValidTime(time: int): boolean + processAlcoholOrder(bevName: String, size: Size): void + processCoffeeOrder(bevName: String, size: Size, extraShot: boolean, extraSyrup: boolean): void + processSmoothieOrder(bevName: String, size: Size, numOfFruits: int, addProtein: boolean): void + sortOrders(): void + startNewOrder(time: int, day: Day, customerName: String, customerAge: int): void + totalMonthlySale(): double + totalNumOfMonthlyOrders(): int + totalOrderPrice(orderNo: int): double

Class	Beverage
Fields	- bevName: String - type: Type - size: Size
Methods	+ Beverage(bevName: String, type: Type, size: Size) + getBasePrice(): double + getType(): Type + getBevName(): String + getSize(): Size + addSizePrice(): double + calcPrice(): double (abstract) + toString(): String + equals(anotherBev: Object): boolean

Class	<<Interface>> OrderInterface
Methods	+ addNewBeverage(bevName: String, size: Size): void + addNewBeverage(bevName: String, size: Size, extraShot: boolean, extraSyrup: boolean): void + addNewBeverage(bevName: String, size: Size, numOfFruits: int, addProtein: boolean): void + calcOrderTotal(): double + findNumOfBeveType(type: Type): int + getBeverage(itemNo: int): Beverage + isWeekend(): boolean

Class	Order
Fields	- orderTime : int - orderDay : Day - cust : Customer - orderNo : int
Methods	+ Order(orderTime: int, orderDay: Day, cust: Customer) + addNewBeverage(bevName: String, size: Size) : void + addNewBeverage(bevName: String, size: Size, extraShot: boolean, extraSyrup: boolean) : void + addNewBeverage(bevName: String, size: Size, numOfFruits: int, addProtein: boolean) : void + calcOrderTotal() : double + compareTo(anotherOrder: Order) : int + findNumOfBeveType(type: Type) : int + generateOrder() : int + getBeverage(itemNo: int) : Beverage + getCustomer() : Customer + getDay() : Day + getOrderDay() : Day + getOrderNo() : int + getOrderTime() : int + getTotalItems() : int + isWeekend() : boolean + toString() : String

Class	BevShop
Field	- orders: ArrayList<Order>
Method	+ BevShop() + findOrder(int): int + getCurrentOrder(): Order + getMaxNumOfFruits(): int + getMinAgeForAlcohol(): int + getMaxOrderForAlcohol(): int + getNumOfAlcoholDrink(): int + getOrderAtIndex(int): Order + isEligibleForMore(): boolean + isMaxFruit(int): boolean + isValidAge(int): boolean + isValidTime(int): boolean + processAlcoholOrder(String, Size) + processCoffeeOrder(String, Size, boolean, boolean) + processSmoothieOrder(String, Size, int, boolean) + sortOrders() + startNewOrder(int, Day, String, int) + toString(): String + totalMonthlySale(): double + totalNumOfMonthlyOrders(): int + totalOrderPrice(int): double

Class	Alcohol
Field	+ Alcohol(String bevName, Size size, boolean isWeekend)
Methods	+ calcPrice(): double + equals(Object): boolean + isWeekend(): boolean + toString(): String

Class	Smoothie
Field	- bevName : String - size : Size - numOfFruits : int - addProtein : boolean
Methods	+ Smoothie(bevName: String, size: Size, numOfFruits: int, addProtein: boolean) + getNumOfFruits() : int + getAddProtein() : boolean + toString() : String + calcPrice() : double + equals(anotherBev: Object) : boolean

Class	Coffee
Fields	- bevName : String - size : Size - extraShot : boolean - extraSyrup : boolean
Methods	+ Coffee(bevName: String, size: Size, extraShot: boolean, extraSyrup: boolean) + getExtraShot() : boolean + getExtraSyrup() : boolean + toString() : String + calcPrice() : double + equals(anotherBev: Object) : boolean

Class	<<enumeration>> Size
Field	- SMALL : Size - MEDIUM : Size - LARGE : Size
Methods	+ values() : Size[] + valueOf(name: String) : Size

Class	<<enumeration>> Type
Field	- ALCOHOL : Type - COFFEE : Type - SMOOTHIE : Type
Methods	+ values() : Type[] + valueOf(name: String) : Type

Class	<<enumeration>> Day
Field	- MONDAY : Day - TUESDAY : Day - WEDNESDAY : Day - THURSDAY : Day - FRIDAY : Day - SATURDAY : Day - SUNDAY : Day
Methods	+ values() : Day[] + valueOf(name: String) : Day

Class	Customer
Field	- name : String - age : int
Methods	+ Customer(name: String, age: int) + Customer(c: Customer) + getAge() : int + setAge(age: int) : void + getName() : String + setName(name: String) : void + toString() : String