LinkedList

#start: CouponDetails

finalprice[]: double[]

k: int

counnt: int

+LinkedList()

+IsEmpty(): boolean

+getSize(): int

+insert(couponprovider : String, name\_of\_product: String, status\_of\_Coupon: String, price: double, discount\_rate: double, expiration\_period: double, Coupon\_ID : double, Discounted\_price: double) : void

+delete (pos: double) : void

+display() : void

+ Linearsearch(Coupon\_ID: double): boolean

+lowtohigh() : void

+lowtohigh\_price() : void

+lowtohigh\_Discounted\_price() : void

+lowtohigh\_expiration() : void

+lowtohigh\_couponID() : void

+filter\_discount\_rate(dr: double, gl: int): void

+filter\_price(dr: double, gl: int): void

+filter\_discounted\_price(dr: double, gl: int): void

+filter\_expiration(dr: double, gl: int): void

+filter\_couponID(dr: double, gl: int): void

+filter\_Coupon\_Provider(val: String): void

+filter\_Product\_name(val: String): void

+BinarySearch( ID: double) : int

+searchalgo(arr[]: double, l: int, h: int, x: double): int

**OBJECT**

Coupon

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#Couponprovider: String

#Name\_of\_product : String

#Status\_of\_Coupon : String

# price: double

#discount\_rate: double

#discounted\_price : double

#expiration\_period : double

#Coupon\_ID: double

# Customer\_name: String

+ CouponDetails()

+ CouponDetails(couponprovider: String, name\_of\_product : String, status\_of\_Coupon : String, price : double, discount\_rate: double, expiration\_period : double, Coupon\_ID : double, discounted\_price : double , customer\_Name: String, n: CouponDetails)

+getCustomer\_name(): String

+setCustomer\_name(customer\_name: String): void

+getDiscounted\_price() :double

+setDiscounted\_price(discounted\_price: double) :void

+getCoupon\_ID() : double

+getLink() : CouponDetails

+setLink(link : CouponDetails) : void

+setCoupon\_ID(coupon\_ID : double):void

+getCouponprovider() : String

+setCouponprovider(couponprovider: String) : void

+getName\_of\_product() : String

+setName\_of\_product(name\_of\_product: String) : void

+getStatus\_of\_Coupon() : String

+setStatus\_of\_Coupon(status\_of\_Coupon: String)

+getPrice(): double

+setPrice(price : double) : void

+getDiscount\_rate(): double

+setDiscount\_rate(discount\_rate: double):void

+getExpiration\_period(): double

+setExpiration\_period(expiration\_period: double) : void#

Coupon\_main

xlWBook: HSSFWorkbook

xlSheet: HSSFSheet

xlRow: HSSFRow

xlCell: HSSFCell

+Main()

LinkedListInterface

#start: CouponDetails

finalprice[]: double[]

k: int

count: int

+LinkedList()

+IsEmpty(): boolean

+getSize(): int

+insert(couponprovider : String, name\_of\_product: String, status\_of\_Coupon: String, price: double, discount\_rate: double, expiration\_period: double, Coupon\_ID : double, Discounted\_price: double) : void

+delete (pos: double) : void

+display() : void

+ Linearsearch(Coupon\_ID: double): boolean

+lowtohigh() : void

+lowtohigh\_price() : void

+lowtohigh\_Discounted\_price() : void

+lowtohigh\_expiration() : void

+lowtohigh\_couponID() : void

+filter\_discount\_rate(dr: double, gl: int): void

+filter\_price(dr: double, gl: int): void

+filter\_discounted\_price(dr: double, gl: int): void

+filter\_expiration(dr: double, gl: int): void

+filter\_couponID(dr: double, gl: int): void

+filter\_Coupon\_Provider(val: String): void

+filter\_Product\_name(val: String): void

+BinarySearch( ID: double) : int

+searchalgo(arr[]: double, l: int, h: int, x: double): int