<<interface>> BagInterface

- +getCurrentSize(): integer
- +isEmpty(): boolean
- +add(newItem: T): boolean
- +remove(): T
- +remove(newItem: T): boolean
- +clear(): void
- +getFrequencyOf(Item: T): integer
- +contains(Item: T): boolean
- +toArray(): T[]
- +printBag(): void
- +copyBag (BagInterface source): BagInterface //Deep copy
- +union(BagInterface obj): BagInterface
- +intersection(BagInterface obj): BagInterface
- +difference(BagInterface obj): BagInterface

ArrayBag

- -_bag: T[]
- -_ numOfItems: integer
- -_capacity: integer
- -_isEmpty: boolean
- +getCurrentSize(): integer
- +isEmpty(): boolean
- +isFull(): boolean
- +add(newItem: T): boolean
- +getItem(index: T): T item
- +remove(): T
- +remove(newItem: T): boolean +clear(): void
- +getFrequencyOf(Item: T): integer +contains(Item: T): boolean
- -doubleCapacity(): void // Resize array with the same items
- +toArray(): T[]
- +printbag(): void
- +toString(): String
- +copyBag (BagInterface source): BagInterface //Deep copy
- +union(BagInterface obj): BagInterface
- +intersection(BagInterface obj): BagInterface
- +difference(BagInterface obj): BagInterface

LinkedBag

- _head: Node
- _numOfItems: integer
- _isEmpty: boolean
- +getCurrentSize(): integer
- +isEmpty(): boolean +add(newItem: T): boolean
- +remove(): T
- +remove(newItem: T): boolean
- +clear(): void
- +getFrequencyOf(Item: T): integer
- +contains(Item: T): boolean
- +toArray(): T[]
- +printBag(): void
- +toString(): String
- +copyBag (BagInterface source): BagInterface //Deep copy +addLast(newItem: T): void
- +getLast(): Node //The last node addresss in the instance
- +union(BagInterface obj): BagInterface
- +intersection(BagInterface obj): BagInterface +difference(BagInterface obj): BagInterface

Node

- data: T -_next: Node
- +getData(): T +setData(): void
- +getNext(): Node
- +setData(): void