Calculator

- splitString(: string): string*
- reverseString(: string): string*
- reverseArray(: string): string*
- isOperand(: string): bool
- isOperator(: string): bool
- getNumberOfTokens(: string): int
- getOperatorPrecedence(: string): int
- validateExpression(: string): void
- + infixToPostfix(: string): string*
- + infixToPrefix(: string): string*
- + resolvePostfix(: string*): int
- + resolvePrefix(: string*): int
- + arrayToString(: string*): string

List

- count: int
- head*: Node<T>
- + List():
- + ~List():
- + isEmpty(): bool
- + getCount : int
- + insert(:T&,:int):void
- + insertFirst(: T&): void
- + insertLast(: T&): void
- + remove(:int):void
- + removeFirst(): void
- + removeLast(): void
- + removeAll(): void
- + getData(:int):T&
- + getFirstData(): T&
- + getLastData(): T&
- + setData (: T&, : int): void

```
+ setFirstData(: T&): void
+ setLastData(: T&): void
```

Node

```
+ data* : T
```

+ next* : Node<T>

+ Node():

+ Node(: T&):

+ Node(: T&,: Node<T>*):

+ ~Node():

Stack

```
+ push(:T&):void
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+ pop(): void + peek(): T&

+ empty(): void

+ count(): void

Queue

- front : Node<T>*

- rear : Node<T>*

+ Queue():

+ enque(:T&):void

+ dequeue(): T&

+ getFront(): T&

+ getRear(): T&

+ getCount(): int

+ empty(): void + isEmpty(): bool

${\sf Exception Malformed Expression}$

+ what() const : const char*