

## Public\_Interface

### O(N) Time Complexity

- Copy Constructor - Copy assignment - Destructor - Clear() - Erase(SI, EI )

### O(1)

- Default constructor - Move constructor - Move assignment operator= - push\_front(t), push\_back(t), insert(l, t) - pop\_front(), pop\_back(), erase(l) - begin(), end(); - front(), back();  
- empty();

### Read Only

```
// Read Only
bool operator==(const iterator & rhs) const;

bool operator!=(const iterator & rhs) const;

Object & operator* ( ) const;
// return a reference to the current value
```

### Write Only

```
// Write only
iterator & operator++ ( ); // prefix

iterator operator++ ( int ); // postfix

iterator& operator-- ( ); // prefix

iterator operator-- ( int ); // postfix
```

### List Implementation

- A doubly linked list with header and tail nodes as markers - [[Linked Lists]]

### Constructors and big-five

- Copy/move constructor - Copy/move assignment operator - Destructor

```
// Constructors
List();

List(const List &rhs);

List(List &&rhs);

List & operator=(const List &rhs);

List & operator=(List && rhs);

~List();

// Read-only accessor functions
int size() const;
bool empty() const;
```