

```
/*-----DESIGN EXPLANATION Q1: Stack LinkedList-----*/
```

This program is made with class “linkedStackType”. This class holds many functions that uses linked list to create a data structure stack. It uses linked list’s characteristics such as node and data to create stacks. To program stack structure, the linked list need to perform many test such and checking the stack is empty or full. The functions also need to perform: initialization, push, pop, top.

linkedStackType:

In this program, we aim to build stacks using linked list.

To do that, the all functions need to be able to test and perform that is needed in stack.

The most important functions are push, top, and pop. They are the most essential behaviors of stack that designs last-in first-out behavior. Push() inserts the elements to the bottom of the position, and pop() removes the element from the top position. Top() position is most important position as it is most recently modified data.

Method:

```
const linkedStackType<Type>& operator=(const linkedStackType<Type>&);
```

```
bool isEmptyStack() const;
```

```
bool isFullStack() const;
```

```
void initializeStack();
```

```
void push(const Type& newItem);
```

```
Type top() const;
```

```
void pop();
```

```
void copyStack(const linkedStackType<Type>& otherStack)
```

```
linkedStackType();
```

```
linkedStackType(const linkedStackType<Type>& otherStack);
```

```
~linkedStackType();
```