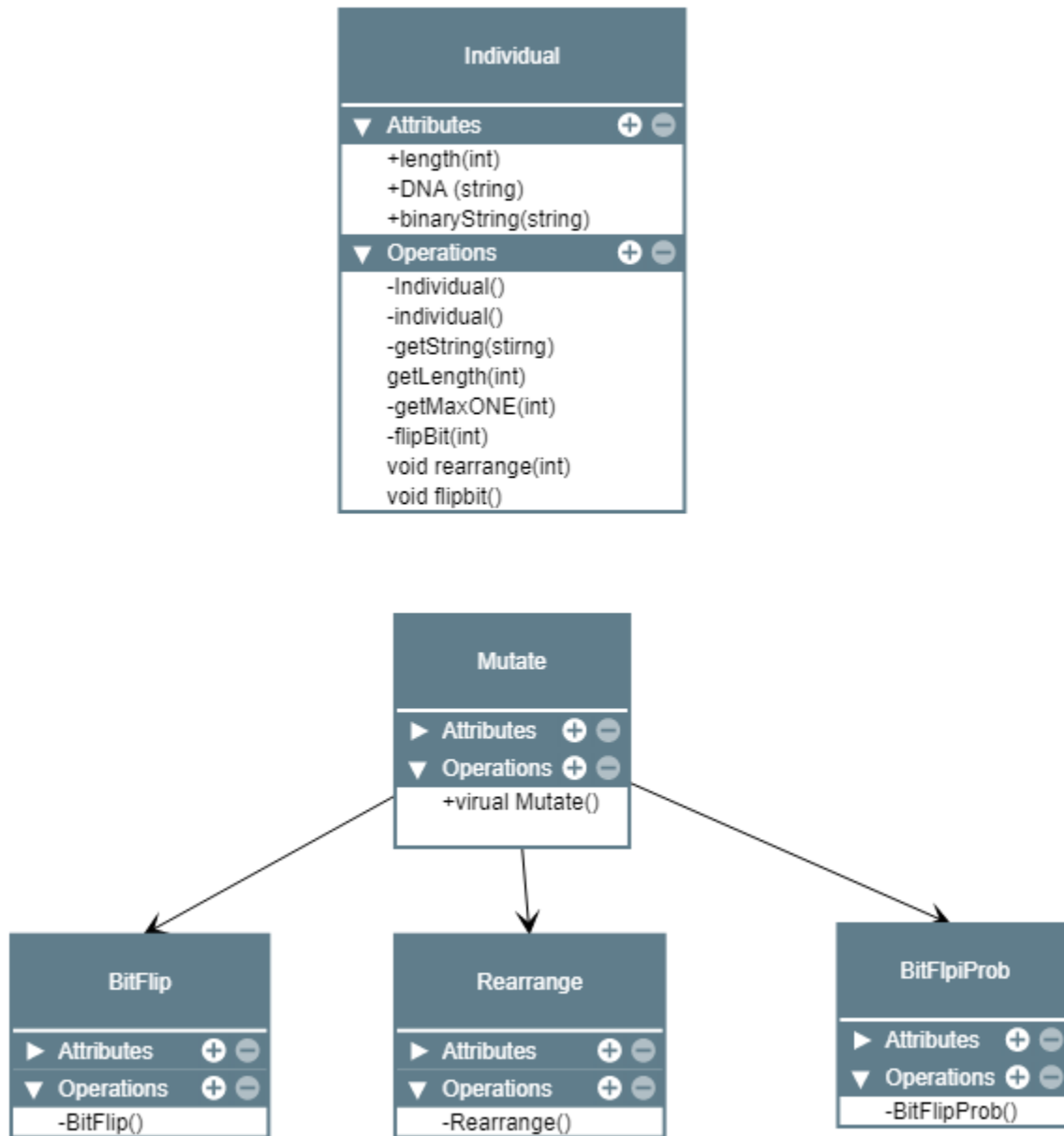


## Design 6

### UML Diagram



**Individual class:** there are two constructors, first one setting all value to be 0, second one copy input,

getString function is returning input string ,

getLength function is returning length,

getMaxone function means returning the max time of continual one number

,void rearrange is to change location in different number,

flipbit function is flip one to zero, or zero to one.

**Mutate class: there are pure virtual function**

**BitFlip class:** redefine the virtual function to implement following , if the k is over the length of string ,then change to another location ,

**BitFlipProb:** set new random value ,according to random number , then flip random number location ,zero to one, or one to zero

**Rearrange:** changing the index in input string ,the index number is input k2

## Testing

```
101111
3
101111
3
100111 111110 5
mint@mint ~/Desktop/a1737480/2019/s1/adds/assignment6 $
```

```
000000
2
100011
4
010000 011100 3
mint@mint ~/Desktop/a1737480/2019/s1/adds/assignment6 $
```

```
mint@mint ~/Desktop/a1737480/2019/s1/adds/assignment6 $ ./test
111111
6
010101
3
111110 010101 1
```

```
111111
6
010101
3
111111 010101 1
```

```
t mint@mint ~/Desktop/a1737480/2019/s1/adds/assignment6 $ ./test
111111
6
010101
t 3
111111 010101 1
```

```
mint@mint ~/Desktop/a1737480/2019/s1/adds/assignment6 $ ./test
dasdsadasd
21312
21312asdas
asdas
dasdsadasd 21312asda 1
mint@mint ~/Desktop/a1737480/2019/s1/adds/assignment6 $
```

A1737480

Longhan zhang

