

```
// query bit[1..index]
int query(int *bit, int n, int index)
{
    int sum = 0;
    while(index > 0)
    {
        sum += bit[index];
        index -= (index & (-index));
    }
    return sum;
}

// update bit[index..n]
void update(int *bit, int n, int index, int val)
{
    if(index < 1) return;
    while (index <= n)
    {
        bit[index] += val;
        index += (index & (-index));
    }
}
```