***Week – 4 (19.04.2021 – 25.04.2021)***

***CODES BASED ON WEELKY TASK***

1. ***Number of 1 Bits:***

class Solution {

public:

int hammingWeight(uint32\_t n) {

int count = 0, i;

for(i=0; i<32; i++)

{

if(1 & n) count++;

n>>=1;

}

return count;

}

};

1. ***Number Complement:***

class Solution {

public:

int findComplement(int num) {

int rem, i, n=0;

while(num)

{

rem = num%2;

n = n | ((1-rem)<<i);

num = num/2;

i++;

}

return n;

}

};

1. ***Convert Binary Number in a Linked List to Integer:***

class Solution {

public:

int getDecimalValue(ListNode\* head) {

int num = 0;

while(head!=NULL)

{

num = (num << 1) | head->val;

head = head->next;

}

return num;

}

};

1. ***XOR Operation in an Array:***

class Solution {

public:

int xorOperation(int n, int start) {

int res = 0, i;

for(i=1; i<=n; i++)

{

res = res^start;

start = start + 2;

}

return res;

}

};

1. ***Minimum Flips to Make a OR b Equal to c:***

class Solution {

public:

int minFlips(int a, int b, int c) {

int res = 0, b1, b2, b3;

while(a | b | c)

{

b1 = a & 1;

b2 = b & 1;

b3 = c & 1;

if(b3 == 1) res += !(b1 | b2);

else res += b1 + b2;

a = a >> 1;

b = b >> 1;

c = c >> 1;

}

return res;

}

};