Check whether K-th bit is set or not

Input : n = 5, k = 1
Output : SET
5 is represented as 101 in binary and has its first bit set.

Input : n = 2, k = 3
Output : NOT SET
2 is represented as 10 in binary, all higher i.e. beyond MSB, bits are NOT SET.

To check if the ith bit is set or not (1 or not), we can use AND operator. How?

Let's say we have a number N, and to check whether it's i^{th} bit is set or not, we can AND it with the number 2^i. The binary form of 2^i contains only i^{th} bit as set (or 1), else every bit is 0 there. When we will AND it with N, and if the ith bit of N is set, then it will return a non zero number (2^i to be specific), else 0 will be returned.