

Amazon Interview Experience | Set 221

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I gave my round 1 amazon. There were two coding questions.

1) Given an integer n in the input, find its next sparse binary number. A sparse binary number is a number whose binary representation does not contain any consecutive 1s.

For eg.

72 is a sparse binary number, because its binary representation (01001000) does not contain any consecutive 1s.

17 is a sparse binary number, because its binary representation (00010001) does not contain any consecutive 1s.

Similarly,

12 is a non sparse binary number, because its binary representation (00001100) contains consecutive 1s.

43 is a non sparse binary number, because its binary representation (00101011) contains consecutive 1s.

Now, given an integer n in the input, find its next sparse binary number. n itself can be sparse or non sparse.

where $n \geq 0$ and $n < 2^{31}$

Input 12\nOutput\n16\nExplanation\n12 is 00001100 and next sparse no. to it is 16 (00010000).\n2) You are given heights of n candles.\nFirst day you lit one candle s\nScnd day you need to lit two candles\nThird day you need to lit three candles\n.....\n.....\ntill possible.\nAfter lighting candles the height of candles deduced by 1 each day. You can also extinguish any candle you want but only at the end of day.\nSo you need to tell the maximum number number of days , you can carry on lighting the candles.\nExample : there are three candles of heights {2 , 2 ,2 }\nAnswer : 3\n1. You light first candle on day one. heights -> {1,2,2}\n2. You light second and third and extinguish first one . heights -> {1, 1,1}\n3. You light all the candles. heights -{0,0,0}

Hope it helps aspirants.

Online mcq, there were around 20 and 13-14 were from geeksquiz.com

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