Problem Link:

<https://leetcode.com/problems/the-k-th-lexicographical-string-of-all-happy-strings-of-length-n/?envType=daily-question&envId=2025-02-19>

Solution:

class Solution {

public:

void generateHappyStrings(int n, std::string current, char lastChar, std::vector<std::string>& happyStrings) {

if(current.length() == n)

{

happyStrings.push\_back(current);

return;

}

for(char ch : {'a', 'b', 'c'})

{

if(ch != lastChar)

{

generateHappyStrings(n, current + ch, ch, happyStrings);

}

}

}

string getHappyString(int n, int k) {

std::vector<std::string> happyStrings;

generateHappyStrings(n, "", ' ', happyStrings);

std::sort(happyStrings.begin(), happyStrings.end());

if(k <= happyStrings.size())

{

return happyStrings[k - 1];

}

return "";

}

};