```
#include <stdio.h>
#include <string.h>
void decode(char *str, char *msg, int n, int done, int pos){
    // All done - nothing to do but print the message
    if(done == n){
        msg[pos] = ' \ 0';
        printf("%s\n", msg);
        return;
    }
    // uh oh - we hit a dead end - cannot decode anymore
    if(str[done] == '0')
        return;
    // Hmm let me decode the current integer as a letter
    msg[pos] = 'a' + str[done] - '0' - 1;
    // Keep decoding further
    decode(str, msg, n, done + 1, pos + 1);
    // I can try to decode this and the next integer as a letter too
    if(done + 1 >= n)
        return;
    if((str[done] == '1') || (str[done] == '2' && str[done + 1] < '7')){
        msg[pos] = 'a' + (str[done] - '0')*10 + (str[done + 1] - '0') - 1;
        decode(str, msg, n, done + 2, pos + 1);
    }
}
int main(){
    int n;
    scanf("%d\n", &n);
    char str[n+1];
    gets(str);
    char msg[n+1];
    decode(str, msg, n, 0, 0);
    return 0;
}
```