

Processing strings

Generating passwords

A password is hard to crack if it contains at least A uppercase letters, at least B lowercase letters, at least C digits and consists of exactly N symbols. Also, a password cannot contain two or more of the same characters in a row.

For the given numbers A, B, C, and N, you should output a password that matches these requirements.

It is guaranteed that A, B, C, and N are non-negative integers, and $A + B + C \leq N$. Keep in mind that any parameter can be equal to zero. It means that it's ok if the password doesn't contain symbols of such type.

Sample Input 1:

```
In [ ]: 3 2 3 10
```

Sample Output 1:

```
In [ ]: ABAab121AB
```

Sample Input 2:

```
In [ ]: 1 0 0 1
```

Sample Output 2:

```
In [ ]: A
```

Sample Input 3:

```
In [ ]: 0 1 0 1
```

Sample Output 3:

In []:

a

Source: [JetBrains Academy](#)