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WAP to implement 2D parity generator using the word "Hello"

```
s = input("Enter the string : ")
mat = []
for i in s:
    x = list(format(ord(i), '08b'))
    mat.append(x)
for i in mat:
    i.append('1' if (i.count('1') & 1) else i.append('0'))
aa = []
for i in range(len(mat[0])):
    k = []
    for j in range(len(mat)):
        k.append(mat[j][i])
    aa.append('1' if (k.count('1') & 1) else aa.append('0'))
mat.append(aa)
for i in mat:
    print(*i)
```

Output:

Enter the string : Hello

010010000

011001010

011011000

011011000

011011110

010000100