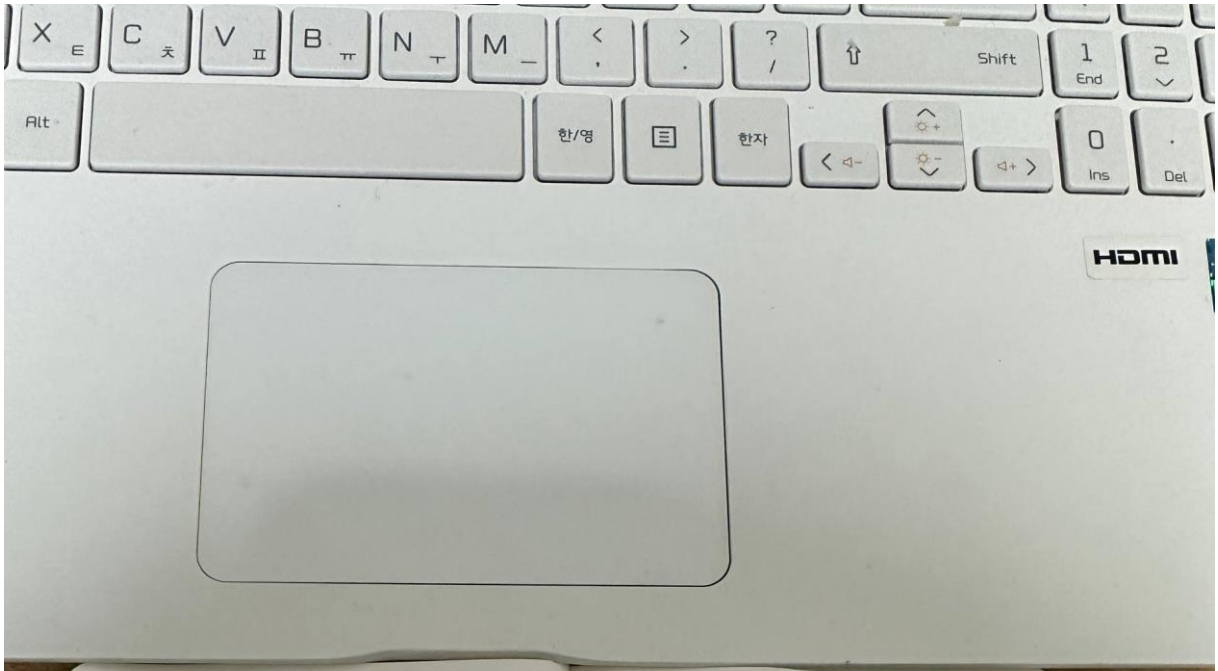


For loop machine learningda qo'llanishi:

```
for i in range(1,10):
    print(i)
```

1
2
3
4
.
.
.

Juft sonlarni olish

```
for i in range(1,10):
    if i%2 == 0:
        print(i)
```

2, 4, 6

Tog' sonlarni olish

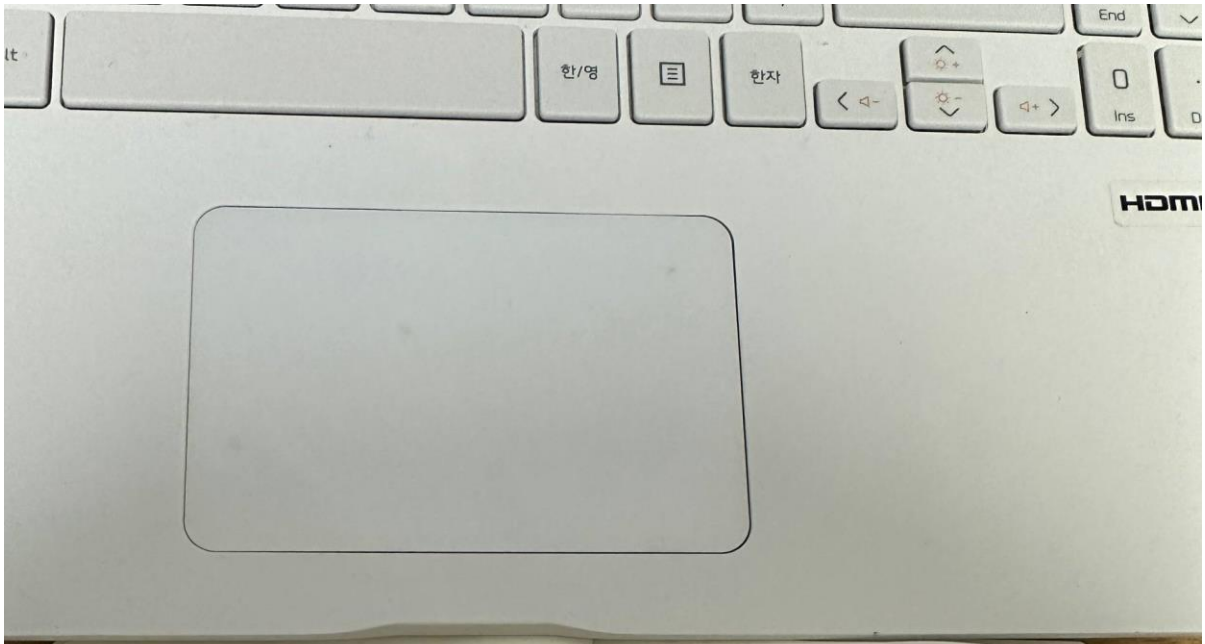
```
for i in range(1,10):
    if i%2 != 0:
        print(i)
```

1, 3, 5, 7

Tog' sonlarni olishni 2-usuli

```
for i in range(1,10,2):
    print(i)
```

1, 3, 5, 7, 9



7-dars

one hot
↓

label encoding
↓
alfbo tartib da qoyadi.
0, 1, 2, 3

Target encoding

ozta ozgaruvchiga qarab encoding giladi.

umumiy bir turdagi elementni bir biriga qoshib, osha elemend soniga bolad.

cat	0
cat	1

0+1 : 2 = 0,5

Mean encoding
||
Target encoding

Ordinal Encoding

ketma ketligiga ko'ra sonlar bilan almashtiriladi.

eng kichikidan kattasiga qarab sonlar bilan alishad.

Size	encoding
X	1
XL →	2
XXL	3

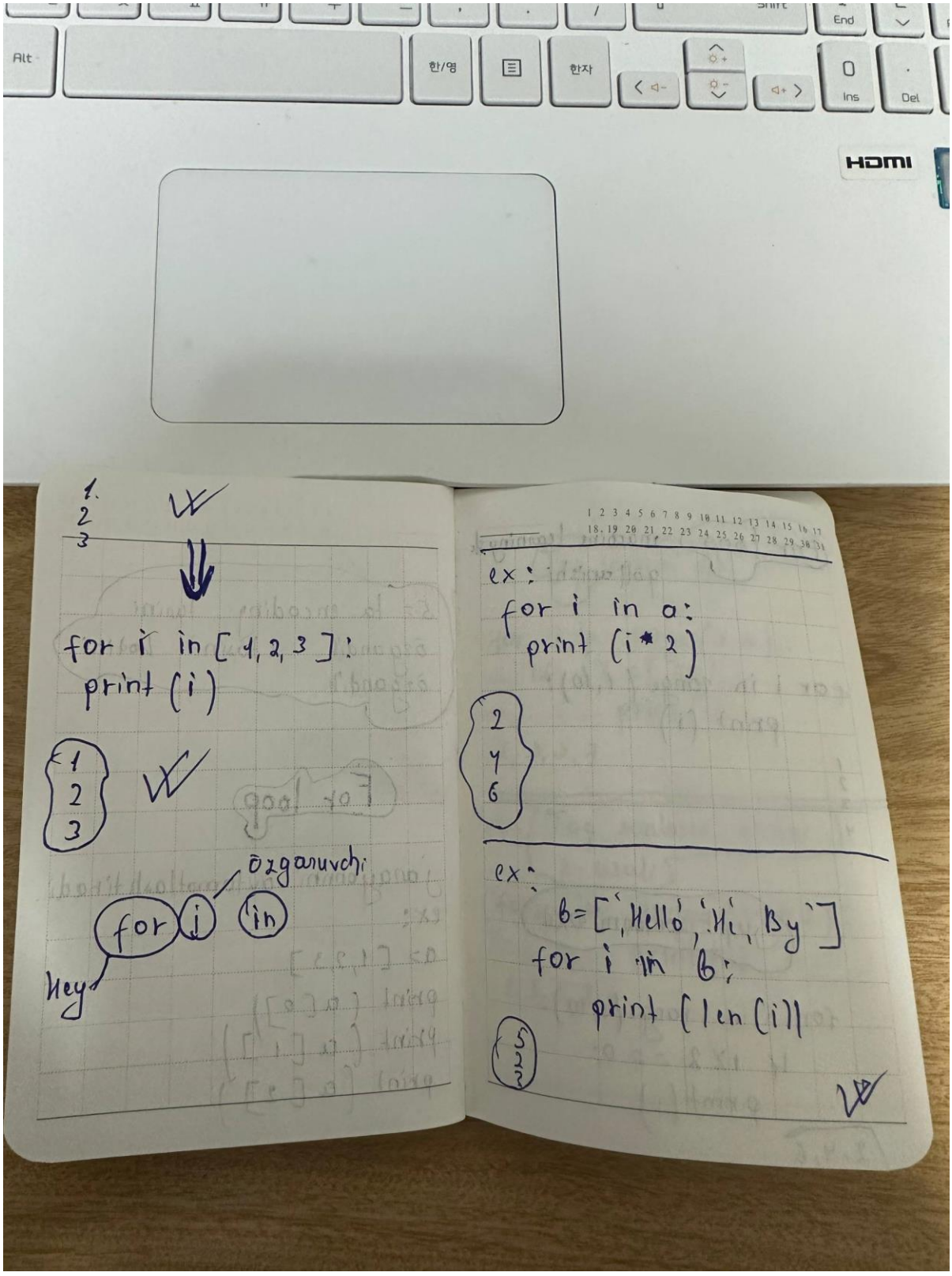
5= ta encoding turini o'rgandik 2 tasini kodini o'rgandik

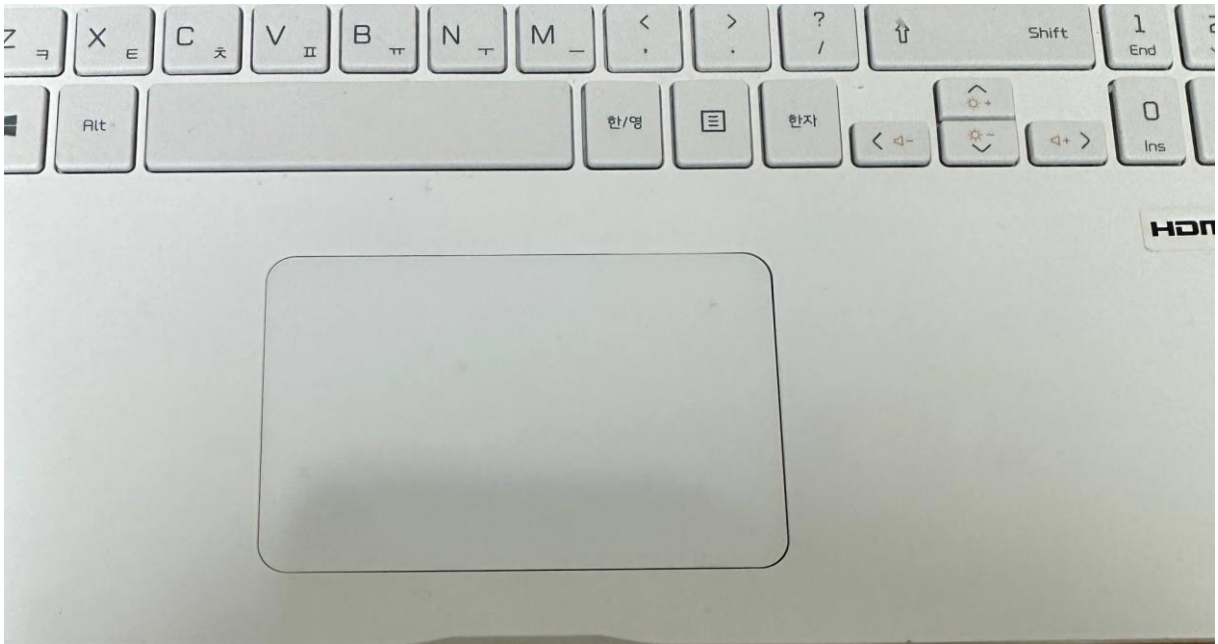
For loop

jarayonnni avtomatlashtiradi.

ex:

```
a= [1,2,3]
print (a[0])
print (a[1])
print (a[2])
```

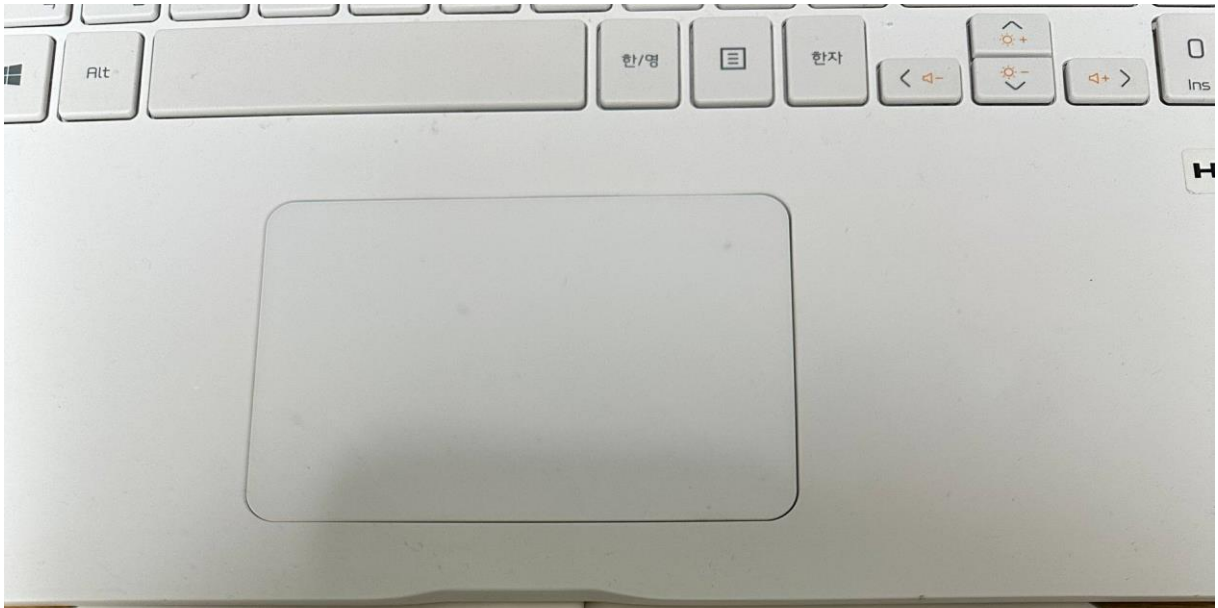

1.
2
3
for i in [1, 2, 3]:
print (i)
1
2
3
for
i
in
o'zgaruvchi
Hey
ex:
for i in a:
print (i * 2)
2
4
6
ex:
b=['Hello', 'Hi', 'By']
for i in b:
print (len (i))
5
2
2



ML da qollanishi

```
for col in df.columns:
    if df[col].isnull().any():
        if df[col].dtype == 'object':
            df[col].fillna(df[col].mode()[0], inplace=True)
        else:
            df[col].fillna(df[col].mean(), inplace=True)
```

tushirib qoldirilgan qiymatlarni for loop orqali to'ldirish



Encoding + For loop

```
① from sklearn.preprocessing import LabelEncoder
② encoder = LabelEncoder()
③ encoder.fit_transform(df['player_name'])
   df['player_name'] = encoder.fit_transform(df['player_name'])
   df.info
```

```
qosh = 0
for i in range(1, 10):
    if i % 2 == 0
        qosh = qosh + i
        print(i)
print(qosh)
```

numerical holatga o'zgartirish