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Roll No :- 19

Subject: Artificial Neural Network

Class : TE

Branch: AI & DS

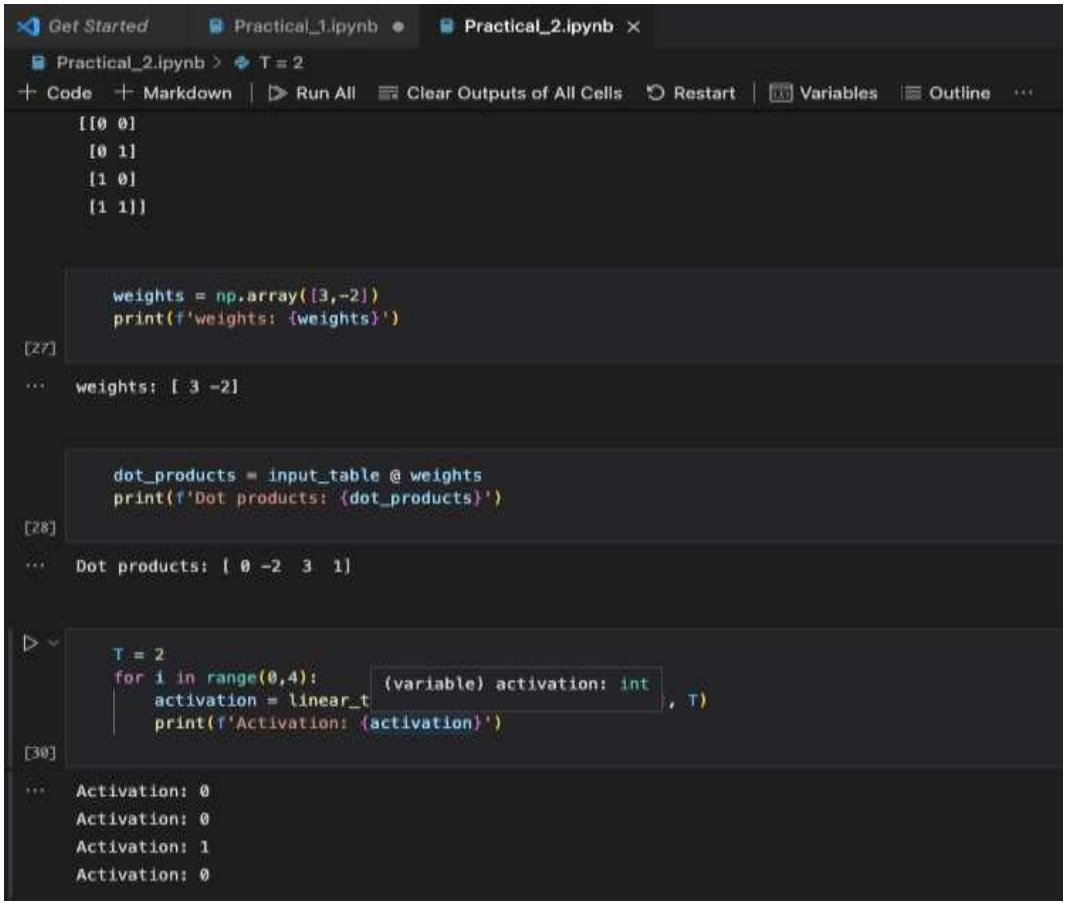
Practical – 2

Problem statement : Generate ANDNOT function using McCulloch-Pitts neural net by a python program.

Code :

```
input_table = np.array([
   [0,0],
   [0,1],
   [1,0],
   [1,1]
])

print(f'input table:\n{input_table}')

weights = np.array([3,-2])
print(f'weights: {weights}')

dot_products = input_table @ weights
print(f'Dot products: {dot_products}')

T = 2
for i in range(0,4):
   activation = linear_threshold_gate(dot_products[i], T)
   print(f'Activation: {activation}')
```

Output :


Get Started
Practical_1.ipynb
Practical_2.ipynb
Practical_2.ipynb > T = 2
Code
Markdown
Run All
Clear Outputs of All Cells
Restart
Variables
Outline
[[0 0]
[0 1]
[1 0]
[1 1]]
weights = np.array([3,-2])
print(f'weights: {weights}')
[27]
weights: [3 -2]
dot_products = input_table @ weights
print(f'Dot products: {dot_products}')
[28]
Dot products: [0 -2 3 1]
T = 2
for i in range(0,4):
(variable) activation: int
activation = linear_t
, T)
print(f'Activation: {activation}')
[30]
Activation: 0
Activation: 0
Activation: 1
Activation: 0