|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Action | No index | Star index | Movies index | Index both |
| Q1 | 100 | 4 | 100 | 4 |
| Q2 | 100 | 100 | 4 | 4 |
| I | 2 | 4 | 4 | 6 |
| Equation | 98p1+98p2+2 | 96p2+4 | 96p1+4 | 6-2p1-2p2 |

1. if p1 = p2 = 0.1

No index =21.6 ,Star index =13.600000000000001 ,Movies index =13.600000000000001 ,Index both =5.6

2. if p1 = p2 = 0.4

No index =80.4 ,Star index =42.400000000000006 ,Movies index =42.400000000000006 ,Index both =4.4

3. if p1 = 0.5, p2 = 0.1

No index =60.8 ,Star index =13.600000000000001 ,Movies index =52.0 ,Index both =4.8

4. if p1 = 0.1, p2 = 0.5

No index =60.8 ,Star index =52.0 ,Movies index =13.600000000000001 ,Index both =4.8

We would prefer to create both indexes. Compare to 10-page-data, I think the more data we have, the more likely we create indexes.

Python code:

def f(p1,p2):

s ='No index ='

s+= str(98\*p1+98\*p2+2)

s+= ' ,Star index ='

s+= str(96\*p2+4)

s+= ' ,Movies index ='

s+= str(96\*p1+4)

s+= ' ,Index both ='

s+= str(6-2\*p1-2\*p2)

return s