# Lista 9

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Exercícios propostos:

Para os dois conjuntos abaixo, calcule os ranqueamentos usando

BM25.

N=100 Lave=100 K1=1.5 b=1.0

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | DF | Doc1 | Doc2 | Doc3 |
| Bom | 5 | 45 | 2 | 29 |
| Errado | 12 | 120 | 15 | 54 |
| Ld |  | 300 | 50 | 2000 |

RSVDoc1=pbom+perrado

Kx=k1+1=1,5+1=2,5

Ky=k1\*((1-b)+b\*ld/lave)=1,5\*((1-1)+1\*300/100)=1,5\*3=4,5

Pbom (log 100/5) \*(kx\*45)/(ky+45)=1,3\*112,5/49,5=2,95

perrado (log 100/12) \*( (2,5\*120)/(4,5+120)=0,92\*300/124,5=2,22

RSVdoc1=2,95+2,22=5,17

RSVDoc2=pbom+perrado

Kx=k1+1=1,5+1=2,5

Ky=k1\*((1-b)+b\*ld/lave)=1,5\*((1-1)+1\*50/100)=1,5\*0,5=0,75

Pbom (log 100/5) \*(kx\*2)/(ky+2)=1,3\*2,5\*2/2,75=2,36

perrado (log 100/12) \*( (2,5\*15)/(4,5+15)=0,92\*37,5/19,5=1,77

RSVdoc2=2,36+1,77=4,13

RSVDoc3=pbom+perrado

Kx=k1+1=1,5+1=2,5

Ky=k1\*((1-b)+b\*2000/lave)=1,5\*((1-1)+1\*2000/100)=1,5\*20=30

Pbom (log 100/5) \*(kx\*59)/(ky+59)=1,3\*2,5\*59/89=2,15

perrado (log 100/12) \*( (2,5\*54)/(30+54)=0,92\*2,5\*54/84=1,48

RSVdoc3=2,15+1,48=3,63

RSVdoc1=5,17 1o

RSVdoc2=4,13 2º

RSVdoc3=3,63 3º

N=300000 Lave=3000 K1=1.2 b=0.8

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | DF | Doc1 | Doc2 | Doc3 |
| Bom | 450 | 23 | 45 | 254 |
| Errado | 8000 | 230 | 135 | 334 |
| Ld |  | 5000 | 12000 | 20000 |

RSVDoc1= pbom + perrado

Kx = k1+1=1,2+1= 2,2

Ky = k1\*((1-b)+b\*ld/lave)=2.2\*((1-0.8)+0.8\*5000/3000)= 0.44+1.33 = 1.77

Pbom (log 300000/450) \*(2.2\*23)/(1.77+23)= (2.82) \* (2.04) = 5.75

Perrado (log 300000/8000) \*( (2,2\*230)/(1.77+230)= (1.57) \* (2.18)= 3.42

RSVdoc1 = 5.75+3,42= 9.17

RSVDoc2= pbom + perrado

Kx = k1+1=1,2+1= 2,2

Ky = k1\*((1-b)+b\*ld/lave)=2.2\*((1-0.8)+0.8\*12000/3000)= 0.44 + 3.2= 3.64

Pbom (log 300000/450) \*(2.2\*45)/(1.77+45)= 2.82 \* 2.11= 5.95

Perrado (log 300000/8000) \*( (2,2\*135)/(1.77+135)= 1.57\* (2.17 )= 3.40

RSVdoc1 = 5.95 + 3.40 = 9.35

RSVDoc3= pbom + perrado

Kx = k1+1=1,2+1= 2,2

Ky = k1\*((1-b)+b\*ld/lave)=2.2\*((1-0.8)+0.8\*20000/3000)= 0.44 + 5.36 = 5.8

Pbom (log 300000/450) \*(2.2\*254)/(1.77+254)= 2.82 \* 2.18 = 6.15

Perrado (log 300000/8000) \*( (2,2\*334)/(1.77+334)= 1.57\* 2.19= 3.43

RSVdoc1 = 6.15 + 3.43= 9.58

RSVdoc1= 9,17 3°

RSVdoc2= 9.35 2°

RSVdoc3= 9.58 1°