**HW#2 : Experiments Results :**

**Experiment#1 (Baseline) :**

**RankedBoolean :**

num\_q all 10  
num\_ret all 1000  
num\_rel all 958  
num\_rel\_ret all 283  
map all 0.1071  
gm\_ap all 0.0257  
R-prec all 0.2266  
bpref all 0.2012  
recip\_rank all 0.1318  
ircl\_prn.0.00 all 0.4088  
ircl\_prn.0.10 all 0.4018  
ircl\_prn.0.20 all 0.3230  
ircl\_prn.0.30 all 0.2022  
ircl\_prn.0.40 all 0.1123  
ircl\_prn.0.50 all 0.0000  
ircl\_prn.0.60 all 0.0000  
ircl\_prn.0.70 all 0.0000  
ircl\_prn.0.80 all 0.0000  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.1200  
P10 all 0.1700  
P15 all 0.2467  
P20 all 0.2800  
P30 all 0.3367  
P100 all 0.2830  
P200 all 0.1415  
P500 all 0.0566  
P1000 all 0.0283

**Time :** 7319.614 ms

**BM25 : (Default Query)**

num\_q all 10  
num\_ret all 1000  
num\_rel all 958  
num\_rel\_ret all 373  
map all 0.1985  
gm\_ap all 0.1681  
R-prec all 0.3259  
bpref all 0.2655  
recip\_rank all 0.4490  
ircl\_prn.0.00 all 0.7091  
ircl\_prn.0.10 all 0.5646  
ircl\_prn.0.20 all 0.4916  
ircl\_prn.0.30 all 0.3960  
ircl\_prn.0.40 all 0.2533  
ircl\_prn.0.50 all 0.1160  
ircl\_prn.0.60 all 0.0789  
ircl\_prn.0.70 all 0.0000  
ircl\_prn.0.80 all 0.0000  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.4600  
P10 all 0.4200  
P15 all 0.3667  
P20 all 0.3500  
P30 all 0.3667  
P100 all 0.3730  
P200 all 0.1865  
P500 all 0.0746  
P1000 all 0.0373

**Time :** Time: 8561.781 ms

**Indri :**

num\_q all 10  
num\_ret all 1000  
num\_rel all 958  
num\_rel\_ret all 409  
map all 0.2057  
gm\_ap all 0.1833  
R-prec all 0.3319  
bpref all 0.2841  
recip\_rank all 0.4419  
ircl\_prn.0.00 all 0.6358  
ircl\_prn.0.10 all 0.5744  
ircl\_prn.0.20 all 0.5247  
ircl\_prn.0.30 all 0.4610  
ircl\_prn.0.40 all 0.2171  
ircl\_prn.0.50 all 0.1106  
ircl\_prn.0.60 all 0.0642  
ircl\_prn.0.70 all 0.0000  
ircl\_prn.0.80 all 0.0000  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.3400  
P10 all 0.4000  
P15 all 0.4400  
P20 all 0.4700  
P30 all 0.4233  
P100 all 0.4090  
P200 all 0.2045  
P500 all 0.0818  
P1000 all 0.0409

**Time :** 8703.339 ms

**Experiment 2 : Queries with Synomyms and Phrases**

**Ranked Boolean :**

**Query set :**

69:#OR(#NEAR/3(sewing instruction) #NEAR/3(sewing guidelines) #OR(sewing.title) #OR(sewing.url)

79:#OR(voyager.url voyager.title voyager.keywords voyager.body)

84:#OR(#NEAR/3(continental plates) #NEAR/2(plate continental)) #OR(continental.url)

89:#OR(#NEAR/1(Obsessive-compulsive disorder)) #OR(ocd.url ocd.title)

108:#NEAR/1(ralph owen brewster) #AND(#OR(brewster.url) #OR(owen.url))

141:#AND(va #NEAR/5(dmv registration)) #AND(va #NEAR/5(registration dmv)) #AND(virginia #NEAR/6(dmv registration)) #NEAR/6(virginia motor registration)

146:#OR(#NEAR/1(sherwood regional library)) #OR(#NEAR/2(regional library sherwood))

153:#OR(pocono.url pocono.title pocono.body)

171:#OR(#NEAR/1(ron howard) #NEAR/1(ron.title howard.title)) #OR(RonHoward.url #AND(Ron.url Howard.url))

197:#OR(#NEAR/40(idaho state flower))

**Results :**

num\_q all 10  
num\_ret all 834  
num\_rel all 958  
num\_rel\_ret all 423  
map all 0.3022  
gm\_ap all 0.2692  
R-prec all 0.4346  
bpref all 0.4010  
recip\_rank all 0.5786  
ircl\_prn.0.00 all 0.7993  
ircl\_prn.0.10 all 0.7415  
ircl\_prn.0.20 all 0.6987  
ircl\_prn.0.30 all 0.6300  
ircl\_prn.0.40 all 0.4231  
ircl\_prn.0.50 all 0.2036  
ircl\_prn.0.60 all 0.0965  
ircl\_prn.0.70 all 0.0965  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.4800  
P10 all 0.5500  
P15 all 0.6200  
P20 all 0.6550  
P30 all 0.6333  
P100 all 0.4230  
P200 all 0.2115  
P500 all 0.0846  
P1000 all 0.0423

**BM25 :**

**Query :**

69:#NEAR/3(sewing #SYN(instruction guidelines)) #NEAR/6(#SYN(instruction guidelines) sewing)

79:voyager.body voyager.title voyger.url

84:#NEAR/3(#SYN(tectonic continental) plates) #NEAR/3(plate #SYN(tectonic continental))

89:#NEAR/1(Obsessive-compulsive disorder) ocd

108:#NEAR/1(ralph owen brewster) #NEAR/2(ralph bewster)

141:#NEAR/5(#SYN(va virginia) #SYN(dmv motor) registration) #NEAR/6(virginia motor registration)

146:#NEAR/1(sherwood regional library)

153:pocono.body

171:#NEAR/1(ron howard) #NEAR/1(ron.title howard.title)

197:#NEAR/40(idaho state flower) #NEAR/1(Philadelphus lewisii) #NEAR/1(Philadelphus.title lewisii.title) Syringa.body Syringa.title

69:#NEAR/3(sewing #SYN(instruction guidelines)) #NEAR/6(#SYN(instruction guidelines) sewing)

79:voyager.body voyager.title

84:#NEAR/1(#SYN(tectonic continental) plates) #NEAR/3(plates #SYN(tectonic continental))

89:#NEAR/30(Obsessive compulsive disorder) ocd

108:#NEAR/1(ralph owen brewster) #NEAR/3(ralph brewster) #NEAR/1(owen brewster)

141:#NEAR/5(#SYN(va virginia) #SYN(dmv driving motor vehicle) registration) #NEAR/6(virginia motor registration)

146:#NEAR/1(sherwood regional library)

153:pocono.body #NEAR/1(pocono.title mountains.title) #NEAR/1(pocono mountains)

171:#NEAR/1(ron howard) #NEAR/1(ron.title howard.title)

197:#NEAR/40(idaho state flower) #NEAR/1(Philadelphus lewisii) #NEAR/1(Philadelphus.title lewisii.title) Syringa.body Syringa.title

69:#NEAR/3(sewing #SYN(instruction guidelines)) #NEAR/6(#SYN(instruction guidelines) sewing)

79:voyager.body voyager.title

84:#NEAR/1(#SYN(tectonic continental) plates) #NEAR/3(plates #SYN(tectonic continental))

89:#NEAR/30(Obsessive compulsive disorder) ocd

108:#NEAR/1(ralph owen brewster) #NEAR/3(ralph brewster) #NEAR/1(owen brewster)

141:#NEAR/5(#SYN(va virginia) #SYN(dmv driving motor vehicle) registration) #NEAR/6(virginia motor registration)

146:#NEAR/1(sherwood regional library)

153:pocono.body #NEAR/1(pocono.title mountains.title) #NEAR/1(pocono mountains)

171:#NEAR/1(ron howard) #NEAR/1(ron.title howard.title)

197:#NEAR/40(idaho state flower) #NEAR/1(Philadelphus lewisii) #NEAR/1(Philadelphus.title lewisii.title) Syringa.body Syringa.titl

**Final Query**

69:#NEAR/3(sewing #SYN(instruction guidelines)) #NEAR/6(#SYN(instruction guidelines) sewing)

79:voyager.body voyager.title

84:#NEAR/1(#SYN(tectonic continental) plates) #NEAR/3(plates #SYN(tectonic continental))

89:#NEAR/30(Obsessive compulsive disorder) ocd

108:#NEAR/1(ralph owen brewster) #NEAR/3(ralph brewster) #NEAR/1(owen brewster)

141:#NEAR/6(#SYN(va virginia) #SYN(dmv driving motor vehicle) registration) #NEAR/6(#SYN(va virginia) motor registration)

146:#NEAR/1(sherwood regional library)

153:pocono.body #NEAR/1(pocono.title mountains.title) #NEAR/1(pocono mountains)

171:#NEAR/1(ron howard) #NEAR/1(ron.title howard.title)

197:#NEAR/40(idaho state flower) #NEAR/1(Philadelphus lewisii) #NEAR/1(Philadelphus.title lewisii.title) Syringa.body Syringa.title #NEAR/1(idaho.title state.title flower.title)

**Default parameters :**

**Results :**

num\_q all 10  
num\_ret all 828  
num\_rel all 958  
num\_rel\_ret all 435  
map all 0.2964  
gm\_ap all 0.2079  
R-prec all 0.4256  
bpref all 0.3741  
recip\_rank all 0.6812  
ircl\_prn.0.00 all 0.8164  
ircl\_prn.0.10 all 0.6706  
ircl\_prn.0.20 all 0.6051  
ircl\_prn.0.30 all 0.5675  
ircl\_prn.0.40 all 0.3756  
ircl\_prn.0.50 all 0.2477  
ircl\_prn.0.60 all 0.0927  
ircl\_prn.0.70 all 0.0914  
ircl\_prn.0.80 all 0.0868  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5800  
P10 all 0.6100  
P15 all 0.5867  
P20 all 0.5850  
P30 all 0.5400  
P100 all 0.4350  
P200 all 0.2175  
P500 all 0.0870  
P1000 all 0.0435

**Parameteres:**

retrievalAlgorithm=BM25

BM25:k\_1=1.2 (1.75 gives the best)

BM25:b=0.15

BM25:k\_3=0.0

**Results :**

num\_q all 10  
num\_ret all 828  
num\_rel all 958  
num\_rel\_ret all 440  
map all 0.3161   
gm\_ap all 0.2182  
R-prec all 0.4412  
bpref all 0.3914  
recip\_rank all 0.6475  
ircl\_prn.0.00 all 0.8033  
ircl\_prn.0.10 all 0.7005  
ircl\_prn.0.20 all 0.6618  
ircl\_prn.0.30 all 0.6314  
ircl\_prn.0.40 all 0.5082  
ircl\_prn.0.50 all 0.2569  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6000  
P10 all 0.5800  
P15 all 0.6000  
P20 all 0.6000  
P30 all 0.5867  
P100 all 0.4400  
P200 all 0.2200  
P500 all 0.0880  
P1000 all 0.0440

**Result :**

num\_q all 10  
num\_ret all 800  
num\_rel all 958  
num\_rel\_ret all 437  
map all 0.2938  
gm\_ap all 0.2088  
R-prec all 0.4189  
bpref all 0.3709  
recip\_rank all 0.6694  
ircl\_prn.0.00 all 0.8317  
ircl\_prn.0.10 all 0.6557  
ircl\_prn.0.20 all 0.6047  
ircl\_prn.0.30 all 0.5746  
ircl\_prn.0.40 all 0.3799  
ircl\_prn.0.50 all 0.2477  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5600  
P10 all 0.5900  
P15 all 0.5600  
P20 all 0.5700  
P30 all 0.5300  
P100 all 0.4370  
P200 all 0.2185  
P500 all 0.0874  
P1000 all 0.0437

**Final (Best Query) :**

69:#NEAR/3(sewing #SYN(instruction guidelines)) #NEAR/6(#SYN(instruction guidelines) sewing)

79:voyager.body voyager.title

84:#NEAR/1(#SYN(tectonic continental) plates) #NEAR/3(plates #SYN(tectonic continental))

89:#NEAR/30(Obsessive compulsive disorder) ocd

108:#NEAR/1(ralph owen brewster) #NEAR/3(ralph brewster) #NEAR/1(owen brewster)

141:#NEAR/6(#SYN(va virginia) #SYN(dmv driving motor vehicle) registration) #NEAR/6(#SYN(va virginia) motor registration)

146:#NEAR/1(sherwood regional library)

153:pocono.body #NEAR/1(pocono.title mountains.title) #NEAR/1(pocono mountains)

171:#NEAR/1(ron howard) #NEAR/1(ron.title howard.title)

197:#NEAR/40(idaho state flower) #NEAR/1(Philadelphus lewisii) #NEAR/1(Philadelphus.title lewisii.title) Syringa.body Syringa.title #NEAR/1(idaho.title state.title flower.title)

**Experiment#3 ( Playing with BM25)**

K =0

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 313  
map all 0.2184  
gm\_ap all 0.1026  
R-prec all 0.3178  
bpref all 0.2815  
recip\_rank all 0.5003  
ircl\_prn.0.00 all 0.6219  
ircl\_prn.0.10 all 0.5328  
ircl\_prn.0.20 all 0.4770  
ircl\_prn.0.30 all 0.3400  
ircl\_prn.0.40 all 0.2366  
ircl\_prn.0.50 all 0.2054  
ircl\_prn.0.60 all 0.0981  
ircl\_prn.0.70 all 0.0981  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.4400  
P10 all 0.4900  
P15 all 0.4600  
P20 all 0.4500

K = 0.1

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 428  
map all 0.2941  
gm\_ap all 0.1993  
R-prec all 0.4105  
bpref all 0.3666  
recip\_rank all 0.6655  
ircl\_prn.0.00 all 0.8264  
ircl\_prn.0.10 all 0.6547  
ircl\_prn.0.20 all 0.6053  
ircl\_prn.0.30 all 0.5874  
ircl\_prn.0.40 all 0.3939  
ircl\_prn.0.50 all 0.2009  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6000  
P10 all 0.5600  
P15 all 0.5733  
P20 all 0.5700  
P30 all 0.5367  
P100 all 0.4280  
P200 all 0.2140  
P500 all 0.0856  
P1000 all 0.0428

K = 0.4

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 430  
map all 0.2949  
gm\_ap all 0.2000  
R-prec all 0.4127  
bpref all 0.3678  
recip\_rank all 0.6655  
ircl\_prn.0.00 all 0.8248  
ircl\_prn.0.10 all 0.6558  
ircl\_prn.0.20 all 0.6020  
ircl\_prn.0.30 all 0.5875  
ircl\_prn.0.40 all 0.3956  
ircl\_prn.0.50 all 0.2477  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6000  
P10 all 0.5600  
P15 all 0.5667  
P20 all 0.5700  
P30 all 0.5367  
P100 all 0.4300  
P200 all 0.2150  
P500 all 0.0860  
P1000 all 0.0430

K =0.8

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 432  
map all 0.2917  
gm\_ap all 0.1988  
R-prec all 0.4150  
bpref all 0.3672  
recip\_rank all 0.6655  
ircl\_prn.0.00 all 0.8248  
ircl\_prn.0.10 all 0.6543  
ircl\_prn.0.20 all 0.6003  
ircl\_prn.0.30 all 0.5713  
ircl\_prn.0.40 all 0.3800  
ircl\_prn.0.50 all 0.2478  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6000  
P10 all 0.5600  
P15 all 0.5600  
P20 all 0.5750  
P30 all 0.5333  
P100 all 0.4320

K = 1

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 435  
map all 0.2926  
gm\_ap all 0.1997  
R-prec all 0.4178  
bpref all 0.3689  
recip\_rank all 0.6655  
ircl\_prn.0.00 all 0.8248  
ircl\_prn.0.10 all 0.6540  
ircl\_prn.0.20 all 0.6015  
ircl\_prn.0.30 all 0.5709  
ircl\_prn.0.40 all 0.3779  
ircl\_prn.0.50 all 0.2457  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5800  
P10 all 0.5600  
P15 all 0.5600  
P20 all 0.5700  
P30 all 0.5367  
P100 all 0.4350  
P200 all 0.2175  
P500 all 0.0870  
P1000 all 0.0435

K = 1.5

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 438  
map all 0.2933  
gm\_ap all 0.2001  
R-prec all 0.4183  
bpref all 0.3702  
recip\_rank all 0.6655  
ircl\_prn.0.00 all 0.8250  
ircl\_prn.0.10 all 0.6551  
ircl\_prn.0.20 all 0.6042  
ircl\_prn.0.30 all 0.5734  
ircl\_prn.0.40 all 0.3799  
ircl\_prn.0.50 all 0.2477  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5800  
P10 all 0.5700  
P15 all 0.5600  
P20 all 0.5650  
P30 all 0.5267  
P100 all 0.4380  
P200 all 0.2190  
P500 all 0.0876  
P1000 all 0.0438

k=2

---- Your file output.txt is uploaded ----  
  
num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 439  
map all 0.2929  
gm\_ap all 0.1999  
R-prec all 0.4200  
bpref all 0.3703  
recip\_rank all 0.6655  
ircl\_prn.0.00 all 0.8245  
ircl\_prn.0.10 all 0.6521  
ircl\_prn.0.20 all 0.6030  
ircl\_prn.0.30 all 0.5721  
ircl\_prn.0.40 all 0.3791  
ircl\_prn.0.50 all 0.2473  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5800  
P10 all 0.5600  
P15 all 0.5533  
P20 all 0.5650  
P30 all 0.5300  
P100 all 0.4390  
P200 all 0.2195  
P500 all 0.0878  
P1000 all 0.0439

K= 3

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 441  
map all 0.2929  
gm\_ap all 0.1999  
R-prec all 0.4217  
bpref all 0.3714  
recip\_rank all 0.6655  
ircl\_prn.0.00 all 0.8246  
ircl\_prn.0.10 all 0.6470  
ircl\_prn.0.20 all 0.5996  
ircl\_prn.0.30 all 0.5698  
ircl\_prn.0.40 all 0.3793  
ircl\_prn.0.50 all 0.2483  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5800  
P10 all 0.5600  
P15 all 0.5467  
P20 all 0.5600  
P30 all 0.5200  
P100 all 0.4410  
P200 all 0.2205  
P500 all 0.0882  
P1000 all 0.0441  
  
---- Done ----

K = 5

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 440  
map all 0.2905  
gm\_ap all 0.1977  
R-prec all 0.4268  
bpref all 0.3699  
recip\_rank all 0.6655  
ircl\_prn.0.00 all 0.8211  
ircl\_prn.0.10 all 0.6467  
ircl\_prn.0.20 all 0.5987  
ircl\_prn.0.30 all 0.5657  
ircl\_prn.0.40 all 0.3461  
ircl\_prn.0.50 all 0.2501  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5400  
P10 all 0.5500  
P15 all 0.5333  
P20 all 0.5400  
P30 all 0.5233  
P100 all 0.4400  
P200 all 0.2200  
P500 all 0.0880  
P1000 all 0.0440

K = 10

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 431  
map all 0.2806  
gm\_ap all 0.1899  
R-prec all 0.4220  
bpref all 0.3611  
recip\_rank all 0.6605  
ircl\_prn.0.00 all 0.8107  
ircl\_prn.0.10 all 0.6245  
ircl\_prn.0.20 all 0.5819  
ircl\_prn.0.30 all 0.5613  
ircl\_prn.0.40 all 0.3412  
ircl\_prn.0.50 all 0.2432  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5600  
P10 all 0.5000  
P15 all 0.5133  
P20 all 0.5200  
P30 all 0.5100  
P100 all 0.4310  
P200 all 0.2155  
P500 all 0.0862

**K = 1.2 and varying parameter b**

B =0

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 423  
map all 0.2964  
gm\_ap all 0.2161  
R-prec all 0.4135  
bpref all 0.3725  
recip\_rank all 0.5091  
ircl\_prn.0.00 all 0.7297  
ircl\_prn.0.10 all 0.6964  
ircl\_prn.0.20 all 0.6460  
ircl\_prn.0.30 all 0.6105  
ircl\_prn.0.40 all 0.4832  
ircl\_prn.0.50 all 0.1397  
ircl\_prn.0.60 all 0.0965  
ircl\_prn.0.70 all 0.0965  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5400  
P10 all 0.5600  
P15 all 0.5933  
P20 all 0.5950  
P30 all 0.5900  
P100 all 0.4230  
P200 all 0.2115  
P500 all 0.0846  
P1000 all 0.0423

B = 0.1

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 432  
map all 0.3048  
gm\_ap all 0.2042  
R-prec all 0.4294  
bpref all 0.3802  
recip\_rank all 0.5738  
ircl\_prn.0.00 all 0.7691  
ircl\_prn.0.10 all 0.6884  
ircl\_prn.0.20 all 0.6398  
ircl\_prn.0.30 all 0.6137  
ircl\_prn.0.40 all 0.4973  
ircl\_prn.0.50 all 0.2539  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5600  
P10 all 0.5500  
P15 all 0.5800  
P20 all 0.5900  
P30 all 0.5800  
P100 all 0.4320  
P200 all 0.2160  
P500 all 0.0864  
P1000 all 0.0432

B = .15

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 437  
map all 0.3057  
gm\_ap all 0.2050  
R-prec all 0.4342  
bpref all 0.3835  
recip\_rank all 0.5738  
ircl\_prn.0.00 all 0.7647  
ircl\_prn.0.10 all 0.6819  
ircl\_prn.0.20 all 0.6463  
ircl\_prn.0.30 all 0.6149  
ircl\_prn.0.40 all 0.5001  
ircl\_prn.0.50 all 0.2545  
ircl\_prn.0.60 all 0.0936  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5400  
P10 all 0.5300  
P15 all 0.5667  
P20 all 0.5850  
P30 all 0.5700  
P100 all 0.4370  
P200 all 0.2185  
P500 all 0.0874  
P1000 all 0.0437

B= 0.2

um\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 432  
map all 0.3013  
gm\_ap all 0.2019  
R-prec all 0.4318  
bpref all 0.3801  
recip\_rank all 0.5821  
ircl\_prn.0.00 all 0.7499  
ircl\_prn.0.10 all 0.6656  
ircl\_prn.0.20 all 0.6411  
ircl\_prn.0.30 all 0.6058  
ircl\_prn.0.40 all 0.4631  
ircl\_prn.0.50 all 0.2586  
ircl\_prn.0.60 all 0.0936  
ircl\_prn.0.70 all 0.0914  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5600  
P10 all 0.5200  
P15 all 0.5400  
P20 all 0.5750  
P30 all 0.5700  
P100 all 0.4320  
P200 all 0.2160  
P500 all 0.0864

B = 0.4

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 437  
map all 0.3008  
gm\_ap all 0.2029  
R-prec all 0.4288  
bpref all 0.3800  
recip\_rank all 0.7105  
ircl\_prn.0.00 all 0.8136  
ircl\_prn.0.10 all 0.6621  
ircl\_prn.0.20 all 0.6354  
ircl\_prn.0.30 all 0.5958  
ircl\_prn.0.40 all 0.4894  
ircl\_prn.0.50 all 0.2631  
ircl\_prn.0.60 all 0.0927  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5800  
P10 all 0.5200  
P15 all 0.5200  
P20 all 0.5400  
P30 all 0.5467  
P100 all 0.4370

B = 0.6

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 443  
map all 0.3003  
gm\_ap all 0.2047  
R-prec all 0.4239  
bpref all 0.3788  
recip\_rank all 0.6655  
ircl\_prn.0.00 all 0.8205  
ircl\_prn.0.10 all 0.6638  
ircl\_prn.0.20 all 0.6151  
ircl\_prn.0.30 all 0.5861  
ircl\_prn.0.40 all 0.4774  
ircl\_prn.0.50 all 0.2562  
ircl\_prn.0.60 all 0.1475  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5800  
P10 all 0.5500  
P15 all 0.5467  
P20 all 0.5550  
P30 all 0.5500  
P100 all 0.4430  
P200 all 0.2215  
P500 all 0.0886  
P1000 all 0.0443

B = 0.8

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 433  
map all 0.2903  
gm\_ap all 0.1976  
R-prec all 0.4112  
bpref all 0.3659  
recip\_rank all 0.6738  
ircl\_prn.0.00 all 0.8227  
ircl\_prn.0.10 all 0.6451  
ircl\_prn.0.20 all 0.5956  
ircl\_prn.0.30 all 0.5697  
ircl\_prn.0.40 all 0.3792  
ircl\_prn.0.50 all 0.2457  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6000  
P10 all 0.5500  
P15 all 0.5667  
P20 all 0.5600  
P30 all 0.5300  
P100 all 0.4330  
P200 all 0.2165  
P500 all 0.0866  
P1000 all 0.0433

B = 1.0

num\_q all 10  
num\_ret all 804  
num\_rel all 958  
num\_rel\_ret all 419  
map all 0.2737  
gm\_ap all 0.1817  
R-prec all 0.3991  
bpref all 0.3513  
recip\_rank all 0.6738  
ircl\_prn.0.00 all 0.7767  
ircl\_prn.0.10 all 0.6326  
ircl\_prn.0.20 all 0.5739  
ircl\_prn.0.30 all 0.5462  
ircl\_prn.0.40 all 0.3658  
ircl\_prn.0.50 all 0.2401  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0915  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5600  
P10 all 0.5700  
P15 all 0.5600  
P20 all 0.5550  
P30 all 0.5300  
P100 all 0.4190  
P200 all 0.2095  
P500 all 0.0838  
P1000 all 0.0419

**Indri :**

**With default and structured query :**

Parameters :

indexPath=INPUT\_DIR/index

queryFilePath=TEST\_DIR/HW2-Train-0.qry

trecEvalOutputPath=OUTPUT\_DIR/HW2-Train-0.teIn

retrievalAlgorithm=Indri

Indri:mu=2500

Indri:lambda=0.4

Results :

69:#NEAR/3(sewing #SYN(instruction guidelines)) #NEAR/6(#SYN(instruction guidelines) sewing)79:voyager.body voyager.url

84:#NEAR/3(#SYN(tectonic continental) plates) #NEAR/3(plates #SYN(tectonic continental))

89:#NEAR/120(Obsessive compulsive disorder) ocd.body

108:#NEAR/1(ralph owen brewster) #NEAR/3(ralph brewster) #NEAR/1(owen brewster)

141:#NEAR/40(#SYN(va virginia) #SYN(dmv driving motor vehicle) registration) #NEAR/35(virginia motor registration) #NEAR/35(va motor registration) #NEAR/35(virginia dvm registration) #NEAR/30(va dvm registration)

146:#NEAR/1(sherwood regional library)

153:pocono.body #NEAR/1(pocono.title mountains.title) #NEAR/1(pocono mountains)

171:#NEAR/1(ron howard) #NEAR/1(ron.title howard.title)

197:#NEAR/40(idaho state flower) #NEAR/1(Philadelphus lewisii) #NEAR/1(Philadelphus.title lewisii.title) Syringa.body Syringa.title #NEAR/1(idaho.title state.title flower.title)

**Result :**

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 447  
map all 0.3206  
gm\_ap all 0.2778  
R-prec all 0.4431  
bpref all 0.3939  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8399  
ircl\_prn.0.10 all 0.7167  
ircl\_prn.0.20 all 0.6827  
ircl\_prn.0.30 all 0.6417  
ircl\_prn.0.40 all 0.4832  
ircl\_prn.0.50 all 0.2499  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6400  
P10 all 0.5400  
P15 all 0.6000  
P20 all 0.6050  
P30 all 0.6000  
P100 all 0.4470  
P200 all 0.2235  
P500 all 0.0894  
P1000 all 0.0447  
  
---- Done ----

**Experiments ( Indri) :**

Mau = 2500(default)

Lambda => 0 -> 0.1 -> 0.2->0.4-> 0.6->0.8->1.0

Lamdba = 0

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 447  
map all 0.3204  
gm\_ap all 0.2776  
R-prec all 0.4431  
bpref all 0.3938  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8399  
ircl\_prn.0.10 all 0.7167  
ircl\_prn.0.20 all 0.6808  
ircl\_prn.0.30 all 0.6408  
ircl\_prn.0.40 all 0.4837  
ircl\_prn.0.50 all 0.2504  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6400  
P10 all 0.5400  
P15 all 0.6000  
P20 all 0.6050  
P30 all 0.6000  
P100 all 0.4470  
P200 all 0.2235  
P500 all 0.0894  
P1000 all 0.0447

Lambda = 0.1

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 447  
map all 0.3204  
gm\_ap all 0.2776  
R-prec all 0.4431  
bpref all 0.3938  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8399  
ircl\_prn.0.10 all 0.7167  
ircl\_prn.0.20 all 0.6808  
ircl\_prn.0.30 all 0.6408  
ircl\_prn.0.40 all 0.4837  
ircl\_prn.0.50 all 0.2504  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6400  
P10 all 0.5400  
P15 all 0.6000  
P20 all 0.6050  
P30 all 0.6000  
P100 all 0.4470  
P200 all 0.2235  
P500 all 0.0894  
P1000 all 0.0447

Lambda = 0.2

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 447  
map all 0.3205  
gm\_ap all 0.2777  
R-prec all 0.4431  
bpref all 0.3938  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8399  
ircl\_prn.0.10 all 0.7167  
ircl\_prn.0.20 all 0.6808  
ircl\_prn.0.30 all 0.6408  
ircl\_prn.0.40 all 0.4837  
ircl\_prn.0.50 all 0.2499  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6400  
P10 all 0.5400  
P15 all 0.6000  
P20 all 0.6050  
P30 all 0.6000  
P100 all 0.4470  
P200 all 0.2235  
P500 all 0.0894

**Lambda = 0.4**

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 447  
map all 0.3205  
gm\_ap all 0.2777  
R-prec all 0.4431  
bpref all 0.3938  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8399  
ircl\_prn.0.10 all 0.7167  
ircl\_prn.0.20 all 0.6808  
ircl\_prn.0.30 all 0.6408  
ircl\_prn.0.40 all 0.4837  
ircl\_prn.0.50 all 0.2499  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6400  
P10 all 0.5400  
P15 all 0.6000  
P20 all 0.6050  
P30 all 0.6000  
P100 all 0.4470  
P200 all 0.2235  
P500 all 0.0894  
P1000 all 0.0447

**Lambda = 0.6**

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 446  
map all 0.3199  
gm\_ap all 0.2772  
R-prec all 0.4415  
bpref all 0.3933  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8399  
ircl\_prn.0.10 all 0.7129  
ircl\_prn.0.20 all 0.6824  
ircl\_prn.0.30 all 0.6424  
ircl\_prn.0.40 all 0.4832  
ircl\_prn.0.50 all 0.2499  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6400  
P10 all 0.5400  
P15 all 0.6000  
P20 all 0.6000  
P30 all 0.6000  
P100 all 0.4460  
P200 all 0.2230  
P500 all 0.0892  
P1000 all 0.044

Lambda = 0.8

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 449  
map all 0.3197  
gm\_ap all 0.2774  
R-prec all 0.4392  
bpref all 0.3937  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8370  
ircl\_prn.0.10 all 0.7052  
ircl\_prn.0.20 all 0.6791  
ircl\_prn.0.30 all 0.6394  
ircl\_prn.0.40 all 0.5179  
ircl\_prn.0.50 all 0.2499  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6200  
P10 all 0.5300  
P15 all 0.5867  
P20 all 0.5950  
P30 all 0.6000  
P100 all 0.4490  
P200 all 0.2245  
P500 all 0.0898  
P1000 all 0.0449

**Lambda = 1 (Only default params ) - > only default score of prior..no weightage is given to the term frequency so bad result is expected**

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 373  
map all 0.2455  
gm\_ap all 0.1981  
R-prec all 0.3821  
bpref all 0.3250  
recip\_rank all 0.6100  
ircl\_prn.0.00 all 0.7366  
ircl\_prn.0.10 all 0.6336  
ircl\_prn.0.20 all 0.5406  
ircl\_prn.0.30 all 0.3943  
ircl\_prn.0.40 all 0.2587  
ircl\_prn.0.50 all 0.2012  
ircl\_prn.0.60 all 0.0981  
ircl\_prn.0.70 all 0.0981  
ircl\_prn.0.80 all 0.0894  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5800  
P10 all 0.5700  
P15 all 0.5533  
P20 all 0.5200  
P30 all 0.4933  
P100 all 0.3730  
P200 all 0.1865  
P500 all 0.0746  
P1000 all 0.0373  
  
---- Done ----

Lambda constant and change mau

Lambda = 0.4

Mau = 0

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 434  
map all 0.2831  
gm\_ap all 0.2408  
R-prec all 0.4285  
bpref all 0.3668  
recip\_rank all 0.6367  
ircl\_prn.0.00 all 0.7631  
ircl\_prn.0.10 all 0.6363  
ircl\_prn.0.20 all 0.6026  
ircl\_prn.0.30 all 0.5866  
ircl\_prn.0.40 all 0.4195  
ircl\_prn.0.50 all 0.2019  
ircl\_prn.0.60 all 0.0925  
ircl\_prn.0.70 all 0.0914  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5600  
P10 all 0.5100  
P15 all 0.5267  
P20 all 0.5400  
P30 all 0.5200  
P100 all 0.4340  
P200 all 0.2170  
P500 all 0.0868  
P1000 all 0.0434

Mau = 500

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 451  
map all 0.3117  
gm\_ap all 0.2697  
R-prec all 0.4447  
bpref all 0.3873  
recip\_rank all 0.7400  
ircl\_prn.0.00 all 0.8459  
ircl\_prn.0.10 all 0.6986  
ircl\_prn.0.20 all 0.6435  
ircl\_prn.0.30 all 0.6268  
ircl\_prn.0.40 all 0.4267  
ircl\_prn.0.50 all 0.2514  
ircl\_prn.0.60 all 0.0927  
ircl\_prn.0.70 all 0.0914  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6000  
P10 all 0.5900  
P15 all 0.5533  
P20 all 0.5450  
P30 all 0.5433  
P100 all 0.4510  
P200 all 0.2255  
P500 all 0.0902  
P1000 all 0.0451

Mau = 1000

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 449  
map all 0.3165  
gm\_ap all 0.2739  
R-prec all 0.4454  
bpref all 0.3909  
recip\_rank all 0.7900  
ircl\_prn.0.00 all 0.8508  
ircl\_prn.0.10 all 0.7047  
ircl\_prn.0.20 all 0.6622  
ircl\_prn.0.30 all 0.6313  
ircl\_prn.0.40 all 0.5225  
ircl\_prn.0.50 all 0.2502  
ircl\_prn.0.60 all 0.0927  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6400  
P10 all 0.5600  
P15 all 0.5800  
P20 all 0.5700  
P30 all 0.5567  
P100 all 0.4490  
P200 all 0.2245  
P500 all 0.0898  
P1000 all 0.0449  
  
---- Done ----

Mau = 1500

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 447  
map all 0.3203  
gm\_ap all 0.2777  
R-prec all 0.4451  
bpref all 0.3924  
recip\_rank all 0.7900  
ircl\_prn.0.00 all 0.8575  
ircl\_prn.0.10 all 0.7142  
ircl\_prn.0.20 all 0.6846  
ircl\_prn.0.30 all 0.6336  
ircl\_prn.0.40 all 0.5169  
ircl\_prn.0.50 all 0.2523  
ircl\_prn.0.60 all 0.0936  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6600  
P10 all 0.5700  
P15 all 0.5800  
P20 all 0.5900  
P30 all 0.5800  
P100 all 0.4470  
P200 all 0.2235  
P500 all 0.0894  
P1000 all 0.0447

Mau = 2000

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 446  
map all 0.3198  
gm\_ap all 0.2769  
R-prec all 0.4440  
bpref all 0.3929  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8373  
ircl\_prn.0.10 all 0.7154  
ircl\_prn.0.20 all 0.6755  
ircl\_prn.0.30 all 0.6391  
ircl\_prn.0.40 all 0.4839  
ircl\_prn.0.50 all 0.2506  
ircl\_prn.0.60 all 0.0936  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6400  
P10 all 0.5700  
P15 all 0.5800  
P20 all 0.5900  
P30 all 0.5900  
P100 all 0.4460  
P200 all 0.2230  
P500 all 0.0892

---- Done ----

Mau = 2500

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 447  
map all 0.3206  
gm\_ap all 0.2778  
R-prec all 0.4431  
bpref all 0.3939  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8399  
ircl\_prn.0.10 all 0.7167  
ircl\_prn.0.20 all 0.6827  
ircl\_prn.0.30 all 0.6417  
ircl\_prn.0.40 all 0.4832  
ircl\_prn.0.50 all 0.2499  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6400  
P10 all 0.5400  
P15 all 0.6000  
P20 all 0.6050  
P30 all 0.6000  
P100 all 0.4470  
P200 all 0.2235  
P500 all 0.0894  
P1000 all 0.0447

Mau = 2700

---- Your file output.txt is uploaded ----  
  
num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 445  
map all 0.3198  
gm\_ap all 0.2770  
R-prec all 0.4405  
bpref all 0.3929  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8421  
ircl\_prn.0.10 all 0.7166  
ircl\_prn.0.20 all 0.6842  
ircl\_prn.0.30 all 0.6418  
ircl\_prn.0.40 all 0.4821  
ircl\_prn.0.50 all 0.2490  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6400  
P10 all 0.5600  
P15 all 0.6067  
P20 all 0.6000  
P30 all 0.6000  
P100 all 0.4450  
P200 all 0.2225  
P500 all 0.0890  
P1000 all 0.0445  
  
---- Done ----

Mau = 3000

num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 444  
map all 0.3187  
gm\_ap all 0.2757  
R-prec all 0.4405  
bpref all 0.3921  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8442  
ircl\_prn.0.10 all 0.7176  
ircl\_prn.0.20 all 0.6864  
ircl\_prn.0.30 all 0.6442  
ircl\_prn.0.40 all 0.4821  
ircl\_prn.0.50 all 0.2041  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.6200  
P10 all 0.5600  
P15 all 0.6133  
P20 all 0.6100  
P30 all 0.6033  
P100 all 0.4440  
P200 all 0.2220  
P500 all 0.0888  
P1000 all 0.0444

Mau = 5000

---- Your file output.txt is uploaded ----  
  
num\_q all 10  
num\_ret all 899  
num\_rel all 958  
num\_rel\_ret all 447  
map all 0.3197  
gm\_ap all 0.2776  
R-prec all 0.4411  
bpref all 0.3930  
recip\_rank all 0.7367  
ircl\_prn.0.00 all 0.8533  
ircl\_prn.0.10 all 0.7209  
ircl\_prn.0.20 all 0.6875  
ircl\_prn.0.30 all 0.6416  
ircl\_prn.0.40 all 0.5829  
ircl\_prn.0.50 all 0.2016  
ircl\_prn.0.60 all 0.0917  
ircl\_prn.0.70 all 0.0900  
ircl\_prn.0.80 all 0.0896  
ircl\_prn.0.90 all 0.0000  
ircl\_prn.1.00 all 0.0000  
P5 all 0.5800  
P10 all 0.5900  
P15 all 0.6267  
P20 all 0.6200  
P30 all 0.6067  
P100 all 0.4470  
P200 all 0.2235  
P500 all 0.0894  
P1000 all 0.0447