

table1 GMN-9-50000-50000															
	rails	joomla	angular	ceph	ansible	facebook	elastic	docker	cocos2d	django	hashicorp	emberjs	JuliaLang	dotnet	average
preciou@1	76.32%	44.74%	100.00%	60.53%	42.11%	31.58%	28.95%	29.73%	47.37%	54.05%	13.51%	23.68%	28.21%	21.05%	42.99%
preciou@2	70.13%	31.17%	100.00%	51.95%	33.77%	31.17%	24.68%	34.67%	31.58%	37.33%	18.67%	23.68%	20.51%	16.88%	37.58%
preciou@3	62.07%	28.70%	100.00%	44.83%	30.17%	28.45%	21.74%	30.97%	28.07%	30.36%	19.64%	25.44%	18.64%	14.66%	34.55%
preciou@4	59.35%	29.22%	100.00%	42.58%	29.68%	26.45%	19.48%	23.84%	25.00%	25.33%	16.67%	21.57%	15.92%	13.55%	32.05%
preciou@5	57.73%	23.32%	96.30%	39.18%	28.35%	24.23%	17.62%	22.22%	21.05%	21.39%	14.44%	18.85%	13.20%	11.40%	29.23%
recall@1	14.57%	11.18%	8.93%	22.12%	15.53%	16.22%	17.74%	18.03%	31.58%	36.36%	9.62%	19.57%	26.19%	26.67%	19.59%
recall@2	27.14%	15.79%	18.75%	38.46%	25.24%	32.43%	30.65%	42.62%	42.11%	50.91%	26.92%	39.13%	38.10%	43.33%	33.68%
recall@3	36.18%	21.71%	28.57%	50.00%	33.98%	44.59%	40.32%	57.38%	56.14%	61.82%	42.31%	63.04%	52.38%	56.67%	46.08%
recall@4	46.23%	29.61%	38.39%	63.46%	44.66%	55.41%	48.39%	59.02%	66.67%	69.09%	48.08%	71.74%	59.52%	70.00%	55.02%
recall@5	56.28%	29.61%	46.43%	73.08%	53.40%	63.51%	54.84%	68.85%	70.18%	72.73%	51.92%	78.26%	61.90%	73.33%	61.02%
f1-score@1	24.47%	17.89%	16.39%	32.39%	22.70%	21.43%	22.00%	22.45%	37.89%	43.48%	11.24%	21.43%	27.16%	23.53%	26.92%
f1-score@2	39.13%	20.96%	31.58%	44.20%	28.89%	31.79%	27.34%	38.24%	36.09%	43.08%	22.05%	29.51%	26.67%	24.30%	35.53%
f1-score@3	45.71%	24.72%	44.44%	47.27%	31.96%	34.74%	28.25%	40.23%	37.43%	40.72%	26.83%	36.25%	27.50%	23.29%	39.49%
f1-score@4	51.98%	29.41%	55.48%	50.97%	35.66%	35.81%	27.78%	33.96%	36.36%	37.07%	24.75%	33.17%	25.13%	22.70%	40.50%
f1-score@5	57.00%	26.09%	62.65%	51.01%	37.04%	35.07%	26.67%	33.60%	32.39%	33.06%	22.59%	30.38%	21.76%	19.73%	39.53%
MRR	100.00%	100.00%	100.00%	100.00%	33.33%	100.00%	20.00%	100.00%	100.00%	100.00%	100.00%	25.00%	100.00%	25.00%	78.81%
MAP@1	69.51%	24.99%	100.00%	47.07%	17.78%	17.06%	8.58%	11.87%	32.00%	35.86%	5.62%	9.65%	18.07%	4.59%	28.76%
MAP@2	57.61%	15.93%	100.00%	36.05%	13.79%	13.76%	6.94%	12.57%	19.11%	22.38%	4.85%	8.16%	10.54%	3.64%	23.24%
MAP@3	48.14%	12.99%	100.00%	29.08%	11.68%	11.51%	5.86%	11.06%	14.95%	16.84%	4.64%	7.98%	8.01%	3.05%	20.41%
MAP@4	44.07%	11.96%	100.00%	25.74%	10.92%	10.09%	5.02%	8.48%	12.31%	13.33%	3.83%	6.58%	6.36%	2.66%	18.67%
MAP@5	41.26%	9.54%	96.23%	22.71%	10.04%	8.89%	4.41%	7.52%	10.09%	10.94%	3.24%	5.60%	5.14%	2.20%	16.99%

table2 GMN-9-1174-1174															
	rails	joomla	angular	ceph	ansible	facebook	elastic	docker	cocos2d	django	hashicorp	emberjs	JuliaLang	dotnet	average
preciou@1	47.37%	52.63%	80.00%	57.89%	34.21%	26.32%	23.68%	16.22%	18.42%	18.92%	35.14%	21.05%	15.38%	10.53%	32.70%
preciou@2	50.65%	37.66%	85.71%	48.05%	22.08%	23.38%	20.78%	17.33%	18.42%	16.00%	22.67%	14.47%	12.82%	7.79%	28.42%
preciou@3	45.69%	28.70%	84.38%	39.66%	20.69%	21.55%	16.52%	19.47%	14.91%	14.29%	16.07%	14.04%	9.32%	8.62%	25.28%
preciou@4	40.65%	22.73%	81.40%	35.48%	18.71%	20.65%	16.23%	15.23%	15.79%	12.67%	14.00%	13.07%	8.28%	7.74%	23.04%
preciou@5	37.11%	21.76%	79.63%	29.90%	17.01%	18.04%	12.95%	14.29%	14.74%	12.30%	12.30%	10.47%	7.61%	7.25%	21.10%
recall@1	9.05%	13.16%	7.14%	21.15%	12.62%	13.51%	14.52%	9.84%	12.28%	12.73%	25.00%	17.39%	14.29%	13.33%	14.00%
recall@2	19.60%	19.08%	16.07%	35.58%	16.50%	24.32%	25.81%	21.31%	24.56%	21.82%	32.69%	23.91%	23.81%	20.00%	23.22%
recall@3	26.63%	21.71%	24.11%	44.23%	23.30%	33.78%	30.65%	36.07%	29.82%	29.09%	34.62%	34.78%	26.19%	33.33%	30.59%
recall@4	31.66%	23.03%	31.25%	52.88%	28.16%	43.24%	40.32%	37.70%	42.11%	34.55%	40.38%	43.48%	30.95%	40.00%	37.12%
recall@5	36.18%	27.63%	38.39%	55.77%	32.04%	47.30%	40.32%	44.26%	49.12%	41.82%	44.23%	43.48%	35.71%	46.67%	41.64%
f1-score@1	15.19%	21.05%	13.11%	30.99%	18.44%	17.86%	18.00%	12.24%	14.74%	15.22%	29.21%	19.05%	14.81%	11.76%	19.61%
f1-score@2	28.26%	25.33%	27.07%	40.88%	18.89%	23.84%	23.02%	19.12%	21.05%	18.46%	26.77%	18.03%	16.67%	11.21%	25.56%
f1-score@3	33.65%	24.72%	37.50%	41.82%	21.92%	26.32%	21.47%	25.29%	19.88%	19.16%	21.95%	20.00%	13.75%	13.70%	27.68%
f1-score@4	35.59%	22.88%	45.16%	42.47%	22.48%	27.95%	23.15%	21.70%	22.97%	18.54%	20.79%	20.10%	13.07%	12.97%	28.44%
f1-score@5	36.64%	24.35%	51.81%	38.93%	22.22%	26.12%	19.61%	21.60%	22.67%	19.01%	19.25%	16.88%	12.55%	12.56%	28.01%
MRR	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	14.29%	100.00%	25.00%	100.00%	25.00%	14.29%	77.04%
MAP@1	35.38%	43.29%	74.54%	50.87%	20.57%	8.96%	14.35%	5.43%	3.07%	8.95%	11.67%	9.17%	4.28%	1.55%	20.86%
MAP@2	31.75%	26.48%	76.54%	35.75%	11.71%	7.08%	9.36%	4.35%	3.46%	5.73%	7.51%	5.22%	2.88%	0.98%	16.34%
MAP@3	26.86%	18.83%	74.54%	27.06%	9.10%	6.04%	6.75%	4.41%	2.75%	4.44%	5.21%	4.09%	2.02%	0.97%	13.79%
MAP@4	22.99%	14.39%	71.27%	22.45%	7.47%	5.53%	5.67%	3.42%	2.78%	3.60%	4.20%	3.44%	1.63%	0.82%	12.12%
MAP@5	20.19%	12.31%	68.91%	18.45%	6.33%	4.72%	4.52%	3.05%	2.55%	3.16%	3.52%	2.76%	1.38%	0.75%	10.90%

table3 GMN-9-DSC loss															
	rails	joomla	angular	ceph	ansible	facebook	elastic	docker	cocos2d	django	hashicorp	emberjs	JuliaLang	dotnet	average
preciou@1	100.00%	92.11%	100.00%	89.47%	86.84%	76.32%	52.63%	67.57%	73.68%	89.19%	70.27%	60.53%	41.03%	36.84%	74.03%
preciou@2	84.42%	68.83%	100.00%	79.22%	71.43%	53.25%	33.77%	53.33%	52.63%	56.00%	45.33%	39.47%	25.64%	28.57%	56.56%
preciou@3	81.90%	53.04%	100.00%	63.79%	52.59%	40.52%	24.35%	41.59%	35.09%	41.07%	33.04%	32.46%	19.49%	20.69%	45.69%
preciou@4	69.03%	44.81%	97.67%	51.61%	41.94%	33.55%	20.78%	33.11%	29.61%	32.67%	26.67%	24.84%	16.56%	17.42%	38.59%
preciou@5	60.82%	39.90%	94.44%	45.88%	37.11%	28.35%	17.10%	29.10%	24.74%	26.20%	22.46%	19.90%	14.72%	14.51%	33.94%
recall@1	19.10%	23.03%	8.93%	32.69%	32.04%	39.19%	32.26%	40.98%	49.12%	60.00%	50.00%	50.00%	38.10%	46.67%	37.29%
recall@2	32.66%	34.87%	18.75%	58.65%	53.40%	55.41%	41.94%	65.57%	70.18%	76.36%	65.38%	65.22%	47.62%	73.33%	54.24%
recall@3	47.74%	40.13%	28.57%	71.15%	59.22%	63.51%	45.16%	77.05%	70.18%	83.64%	71.15%	80.43%	54.76%	80.00%	62.34%
recall@4	53.77%	45.39%	37.50%	76.92%	63.11%	70.27%	51.61%	81.97%	78.95%	89.09%	76.92%	82.61%	61.90%	90.00%	68.57%
recall@5	59.30%	50.66%	45.54%	85.58%	69.90%	74.32%	53.23%	90.16%	82.46%	89.09%	80.77%	82.61%	69.05%	93.33%	73.29%
f1-score@1	32.07%	36.84%	16.39%	47.89%	46.81%	51.79%	40.00%	51.02%	58.95%	71.74%	58.43%	54.76%	39.51%	41.18%	49.60%
f1-score@2	47.10%	46.29%	31.58%	67.40%	61.11%	54.30%	37.41%	58.82%	60.15%	64.62%	53.54%	49.18%	33.33%	41.12%	55.38%
f1-score@3	60.32%	45.69%	44.44%	67.27%	55.71%	49.47%	31.64%	54.02%	46.78%	55.09%	45.12%	46.25%	28.75%	32.88%	52.73%
f1-score@4	60.45%	45.10%	54.19%	61.78%	50.39%	45.41%	29.63%	47.17%	43.06%	47.80%	39.60%	38.19%	26.13%	29.19%	49.39%
f1-score@5	60.05%	44.64%	61.45%	59.73%	48.48%	41.04%	25.88%	44.00%	38.06%	40.50%	35.15%	32.07%	24.27%	25.11%	46.40%
MRR	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
MAP@1	100.00%	90.20%	100.00%	88.14%	83.37%	67.60%	45.42%	58.25%	65.97%	88.58%	67.12%	56.67%	32.15%	27.69%	69.37%
MAP@2	83.21%	62.96%	100.00%	73.31%	63.55%	43.15%	26.04%	42.46%	43.40%	53.00%	39.25%	32.63%	17.57%	17.18%	49.84%
MAP@3	76.96%	46.59%	100.00%	56.53%	45.30%	31.10%	17.86%	31.23%	28.93%	37.13%	27.29%	24.15%	12.19%	11.84%	39.08%
MAP@4	63.26%	37.37%	97.67%	44.56%	35.19%	24.48%	13.89%	24.12%	22.75%	28.46%	21.01%	18.19%	9.50%	9.22%	32.12%
MAP@5	54.23%	31.63%	93.92%	37.82%	29.59%	20.05%	11.19%	20.10%	18.48%	22.83%	17.12%	14.57%	7.80%	7.48%	27.63%