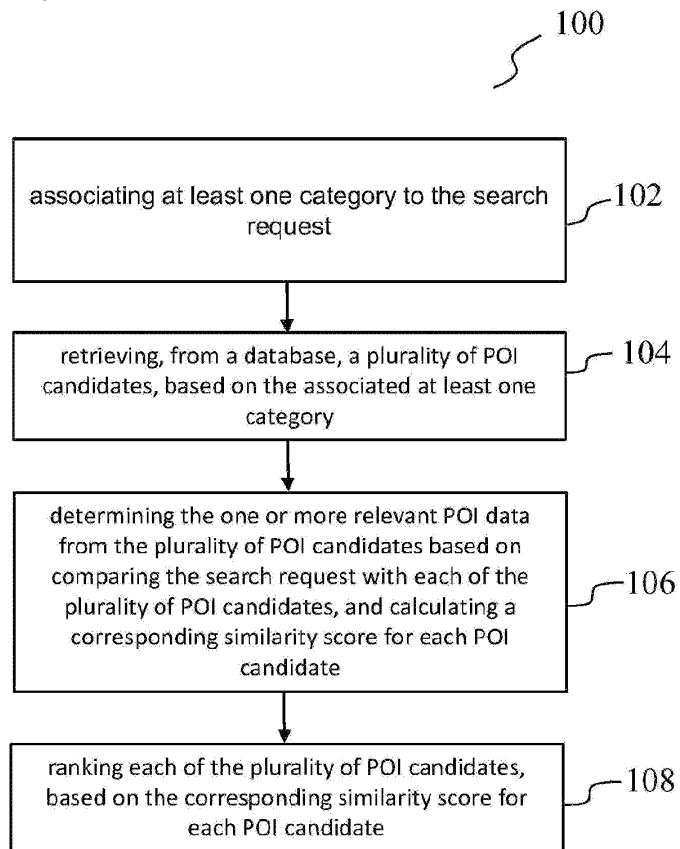
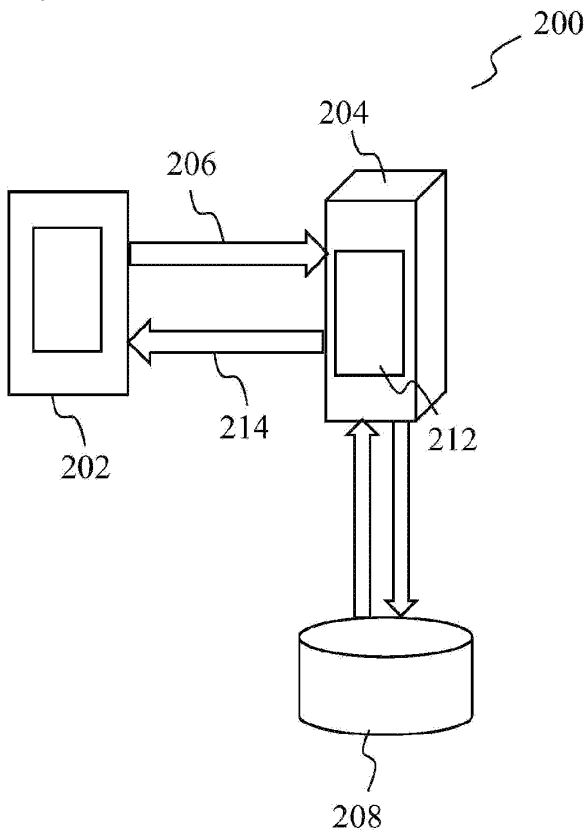


[Fig. 1]



[Fig. 2A]

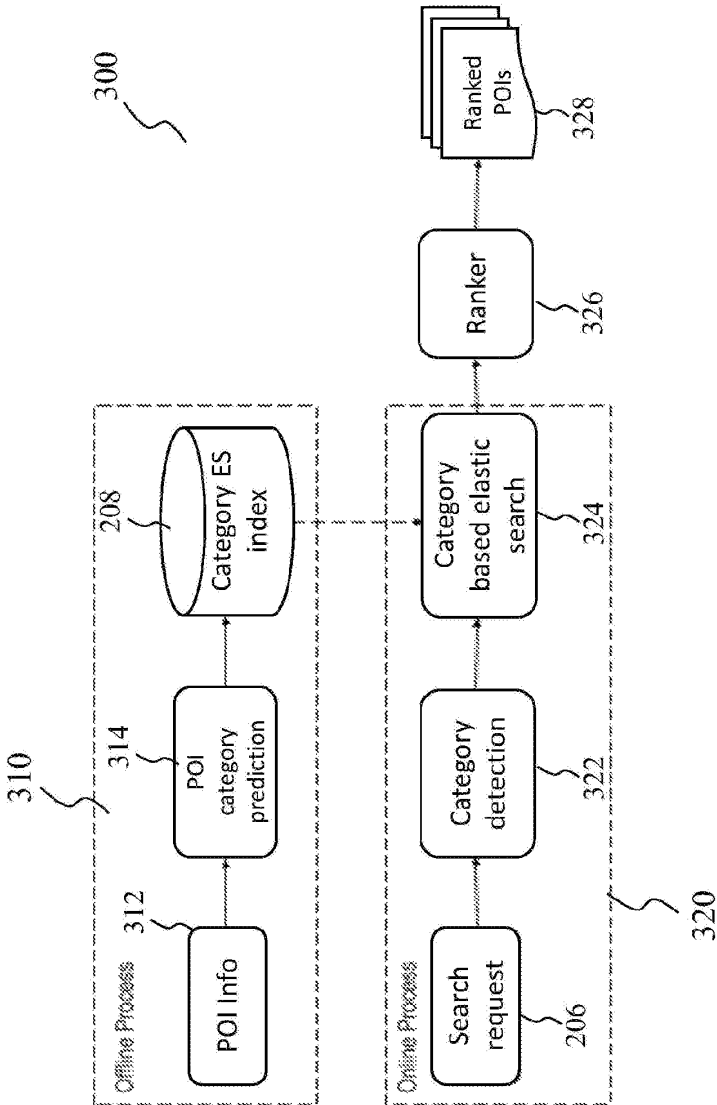


[Fig. 2B]

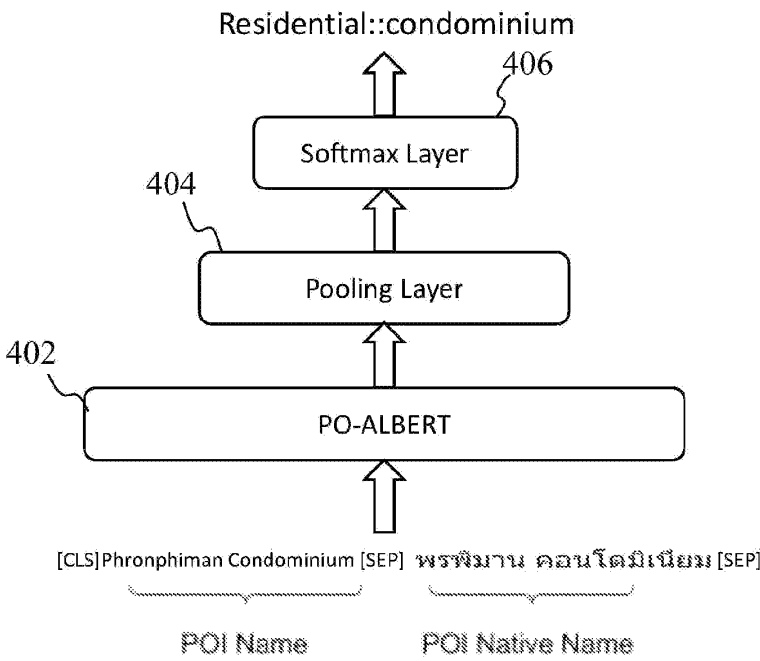
210

Category	POI
wedding photo venue	Botanic Gardens Bandstand
Nature trail	Botanic Gardens Rainforest trail

[Fig. 3]

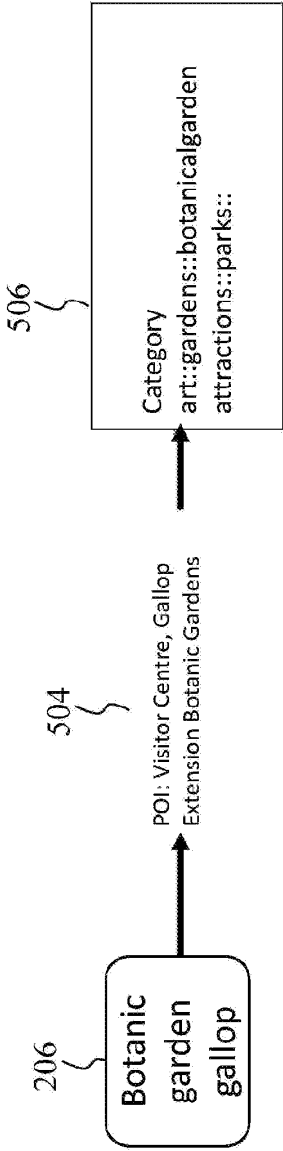


[Fig. 4]



Rule 26,
03.11.2023

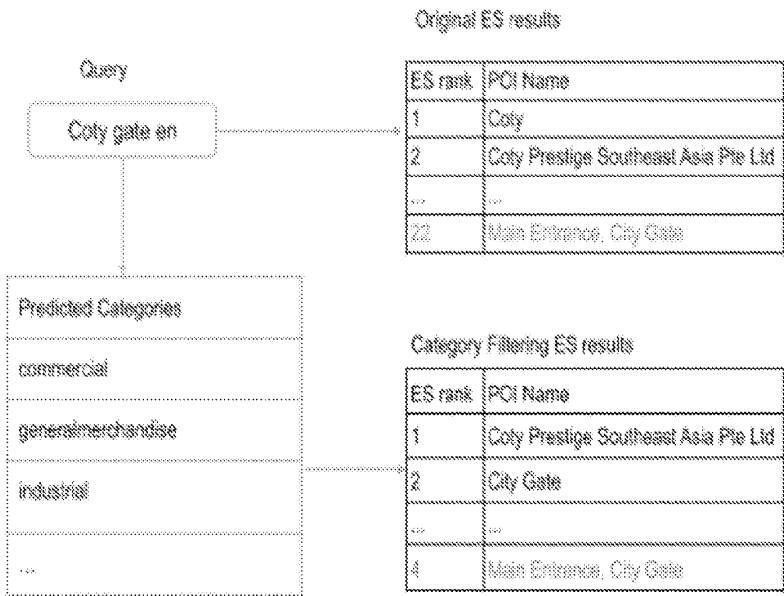
[Fig. 5]



[Fig. 6A]

```
GET /_search
{
  "query": {
    "match": {
      "message": {
        "query": "Marina Bay Sands"
      }
    },
    "terms": {
      "category": [ "food and beverage", "hotel" ],
    }
  }
}
```

[Fig. 6B]



[Fig. 7A]

metrics	Naive finetuning	Two-step finetuning	After Active Learning
Top-1 accuracy	52.42%	64.49%	65.59%
Top-3 accuracy	66.52%	77.19%	78.93%
Top-5 accuracy	71.10%	80.79%	82.79%

[Fig. 7B]

country	recall@1 :@3 :@5 :@10	NDCG@3 :@5 :@10
VN	+0.275pp /+0.128pp /+0.059pp /+0.035pp	+0.178pp /+0.148pp /+0.143pp
PH	+0.316pp /+0.232pp /+0.194pp /+0.155pp	+0.265pp /+0.249pp /+0.237pp
MY	+0.180pp /+0.192pp /+0.162pp /+0.165pp	+0.191pp /+0.180pp /+0.182pp
TH	+0.252pp /+0.123pp /+0.054pp /+0.058pp	+0.175pp /+0.147pp /+0.149pp

[Fig. 7C]

country	Control ES RTT (ms)	Treatment ES RTT (ms)	Reduction Percentage
VN	406	356	14.04%
PH	306	273	10.18%
MY	328	281	14.13%
TH	268	257	4.10%

