**# mapping**

PUT /clg\_study

{

"mappings": {

"properties":

{

"student\_name":{"type":"text"},

"semesters":{

"type":"nested",

"properties":{

"sem\_num":{"type":"integer"},

"sem\_result":{

"type":"nested",

"properties":{

"sub":{"type":"text"},

"pass":{"type":"boolean"}

}

}

}

}

}

}

}

**# Documents insertion**

POST /clg\_study/\_doc/1

{

"student\_name":"AAA",

"semesters":[

{

"sem\_num":1,

"sem\_result":[

{"sub":"sub1","pass":true},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true},

{"sub":"sub4","pass":true}

]

},

{

"sem\_num":2,

"sem\_result":[

{"sub":"sub1","pass":true},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true}

]

},

{

"sem\_num":3,

"sem\_result":[

{"sub":"sub1","pass":true},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true},

{"sub":"sub4","pass":true}

]

},

{

"sem\_num":4,

"sem\_result":[

{"sub":"sub1","pass":true},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true},

{"sub":"sub4","pass":true},

{"sub":"sub5","pass":true}

]

}

]

}

POST /clg\_study/\_doc/2

{

"student\_name":"BBB",

"semesters":[

{

"sem\_num":1,

"sem\_result":[

{"sub":"sub1","pass":true},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true},

{"sub":"sub4","pass":true}

]

},

{

"sem\_num":2,

"sem\_result":[

{"sub":"sub1","pass":true},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true}

]

},

{

"sem\_num":3,

"sem\_result":[

{"sub":"sub1","pass":false},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true},

{"sub":"sub4","pass":true}

]

},

{

"sem\_num":4,

"sem\_result":[

{"sub":"sub1","pass":true},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true},

{"sub":"sub4","pass":true},

{"sub":"sub5","pass":false}

]

}

]

}

POST /clg\_study/\_doc/3

{

"student\_name":"CCC",

"semesters":[

{

"sem\_num":3,

"sem\_result":[

{"sub":"sub1","pass":true},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true},

{"sub":"sub4","pass":true}

]

},

{

"sem\_num":4,

"sem\_result":[

{"sub":"sub1","pass":true},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true},

{"sub":"sub4","pass":true},

{"sub":"sub5","pass":true}

]

}

]

}

POST /clg\_study/\_doc/4

{

"student\_name":"DDD",

"semesters":[

{

"sem\_num":3,

"sem\_result":[

{"sub":"sub1","pass":true},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true},

{"sub":"sub4","pass":true}

]

},

{

"sem\_num":4,

"sem\_result":[

{"sub":"sub1","pass":false},

{"sub":"sub2","pass":false},

{"sub":"sub3","pass":true},

{"sub":"sub4","pass":false},

{"sub":"sub5","pass":false}

]

}

]

}

POST /clg\_study/\_doc/5

{

"student\_name":"EEE",

"semesters":[

{

"sem\_num":4,

"sem\_result":[

{"sub":"sub1","pass":true},

{"sub":"sub2","pass":true},

{"sub":"sub3","pass":true},

{"sub":"sub4","pass":true},

{"sub":"sub5","pass":true}

]

}

]

}

**# search query for a student who passed all semesters he studied**

**GET /clg\_study/\_search**

**{**

**"query":{**

**"bool":{**

**"must\_not":[**

**{**

**"nested": {**

**"path": "semesters",**

**"query": {**

**"bool": {**

**"must":[**

**{**

**"nested":{**

**"path":"semesters.sem\_result",**

**"query":{**

**"bool": {**

**"must":[**

**{**

**"match":{"semesters.sem\_result.pass":false}**

**}**

**]**

**}**

**}**

**}**

**}**

**]**

**}**

**}**

**}**

**}**

**]**

**}**

**}**

**}**

**# search query results**

{

"took": 1120,

"timed\_out": false,

"\_shards": {

"total": 1,

"successful": 1,

"skipped": 0,

"failed": 0

},

"hits": {

"total": {

"value": 3,

"relation": "eq"

},

"max\_score": 0,

"hits": [

{

"\_index": "clg\_study",

"\_id": "1",

"\_score": 0,

"\_source": {

"student\_name": "AAA",

"semesters": [

{

"sem\_num": 1,

"sem\_result": [

{

"sub": "sub1",

"pass": true

},

{

"sub": "sub2",

"pass": true

},

{

"sub": "sub3",

"pass": true

},

{

"sub": "sub4",

"pass": true

}

]

},

{

"sem\_num": 2,

"sem\_result": [

{

"sub": "sub1",

"pass": true

},

{

"sub": "sub2",

"pass": true

},

{

"sub": "sub3",

"pass": true

}

]

},

{

"sem\_num": 3,

"sem\_result": [

{

"sub": "sub1",

"pass": true

},

{

"sub": "sub2",

"pass": true

},

{

"sub": "sub3",

"pass": true

},

{

"sub": "sub4",

"pass": true

}

]

},

{

"sem\_num": 4,

"sem\_result": [

{

"sub": "sub1",

"pass": true

},

{

"sub": "sub2",

"pass": true

},

{

"sub": "sub3",

"pass": true

},

{

"sub": "sub4",

"pass": true

},

{

"sub": "sub5",

"pass": true

}

]

}

]

}

},

{

"\_index": "clg\_study",

"\_id": "3",

"\_score": 0,

"\_source": {

"student\_name": "CCC",

"semesters": [

{

"sem\_num": 3,

"sem\_result": [

{

"sub": "sub1",

"pass": true

},

{

"sub": "sub2",

"pass": true

},

{

"sub": "sub3",

"pass": true

},

{

"sub": "sub4",

"pass": true

}

]

},

{

"sem\_num": 4,

"sem\_result": [

{

"sub": "sub1",

"pass": true

},

{

"sub": "sub2",

"pass": true

},

{

"sub": "sub3",

"pass": true

},

{

"sub": "sub4",

"pass": true

},

{

"sub": "sub5",

"pass": true

}

]

}

]

}

},

{

"\_index": "clg\_study",

"\_id": "5",

"\_score": 0,

"\_source": {

"student\_name": "EEE",

"semesters": [

{

"sem\_num": 4,

"sem\_result": [

{

"sub": "sub1",

"pass": true

},

{

"sub": "sub2",

"pass": true

},

{

"sub": "sub3",

"pass": true

},

{

"sub": "sub4",

"pass": true

},

{

"sub": "sub5",

"pass": true

}

]

}

]

}

}

]

}

}