**# 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":false},

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

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

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

{"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":true},

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

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

{"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}

]

}

]

}

**# To Get the students who falied along with semester number and subjects failed**

GET /clg\_study/\_search

{

"\_source": {

"includes": ["student\_name"]

},

"query":{

"bool":{

"must":[

{

"nested": {

"path": "semesters",

"inner\_hits": {

"\_source": {

"includes":["semesters.sem\_num"]

},

"size": 20

},

"query": {

"bool": {

"must":[

{

"nested":{

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

"inner\_hits": {

"\_source":{

"includes":["semesters.sem\_result.sub"]

},

"size": 30

},

"query":{

"bool": {

"must":[

{

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

}

]

}

}

}

}

]

}

}

}

}

]

}

}

}

**#Query Result**

{

"took": 874,

"timed\_out": false,

"\_shards": {

"total": 1,

"successful": 1,

"skipped": 0,

"failed": 0

},

"hits": {

"total": {

"value": 2,

"relation": "eq"

},

"max\_score": 1.6739764,

"hits": [

{

"\_index": "clg\_study",

"\_id": "2",

"\_score": 1.6739764,

"\_source": {

"student\_name": "BBB"

},

"inner\_hits": {

"semesters": {

"hits": {

"total": {

"value": 2,

"relation": "eq"

},

"max\_score": 1.6739764,

"hits": [

{

"\_index": "clg\_study",

"\_id": "2",

"\_nested": {

"field": "semesters",

"offset": 2

},

"\_score": 1.6739764,

"\_source": {

"sem\_num": 3

},

"inner\_hits": {

"semesters.sem\_result": {

"hits": {

"total": {

"value": 1,

"relation": "eq"

},

"max\_score": 1.6739764,

"hits": [

{

"\_index": "clg\_study",

"\_id": "2",

"\_nested": {

"field": "semesters",

"offset": 2,

"\_nested": {

"field": "sem\_result",

"offset": 0

}

},

"\_score": 1.6739764,

"\_source": {

"sub": "sub1"

}

}

]

}

}

}

},

{

"\_index": "clg\_study",

"\_id": "2",

"\_nested": {

"field": "semesters",

"offset": 3

},

"\_score": 1.6739764,

"\_source": {

"sem\_num": 4

},

"inner\_hits": {

"semesters.sem\_result": {

"hits": {

"total": {

"value": 5,

"relation": "eq"

},

"max\_score": 1.6739764,

"hits": [

{

"\_index": "clg\_study",

"\_id": "2",

"\_nested": {

"field": "semesters",

"offset": 3,

"\_nested": {

"field": "sem\_result",

"offset": 0

}

},

"\_score": 1.6739764,

"\_source": {

"sub": "sub1"

}

},

{

"\_index": "clg\_study",

"\_id": "2",

"\_nested": {

"field": "semesters",

"offset": 3,

"\_nested": {

"field": "sem\_result",

"offset": 1

}

},

"\_score": 1.6739764,

"\_source": {

"sub": "sub2"

}

},

{

"\_index": "clg\_study",

"\_id": "2",

"\_nested": {

"field": "semesters",

"offset": 3,

"\_nested": {

"field": "sem\_result",

"offset": 2

}

},

"\_score": 1.6739764,

"\_source": {

"sub": "sub3"

}

},

{

"\_index": "clg\_study",

"\_id": "2",

"\_nested": {

"field": "semesters",

"offset": 3,

"\_nested": {

"field": "sem\_result",

"offset": 3

}

},

"\_score": 1.6739764,

"\_source": {

"sub": "sub4"

}

},

{

"\_index": "clg\_study",

"\_id": "2",

"\_nested": {

"field": "semesters",

"offset": 3,

"\_nested": {

"field": "sem\_result",

"offset": 4

}

},

"\_score": 1.6739764,

"\_source": {

"sub": "sub5"

}

}

]

}

}

}

}

]

}

}

}

},

{

"\_index": "clg\_study",

"\_id": "4",

"\_score": 1.6739764,

"\_source": {

"student\_name": "DDD"

},

"inner\_hits": {

"semesters": {

"hits": {

"total": {

"value": 1,

"relation": "eq"

},

"max\_score": 1.6739764,

"hits": [

{

"\_index": "clg\_study",

"\_id": "4",

"\_nested": {

"field": "semesters",

"offset": 1

},

"\_score": 1.6739764,

"\_source": {

"sem\_num": 4

},

"inner\_hits": {

"semesters.sem\_result": {

"hits": {

"total": {

"value": 4,

"relation": "eq"

},

"max\_score": 1.6739764,

"hits": [

{

"\_index": "clg\_study",

"\_id": "4",

"\_nested": {

"field": "semesters",

"offset": 1,

"\_nested": {

"field": "sem\_result",

"offset": 1

}

},

"\_score": 1.6739764,

"\_source": {

"sub": "sub2"

}

},

{

"\_index": "clg\_study",

"\_id": "4",

"\_nested": {

"field": "semesters",

"offset": 1,

"\_nested": {

"field": "sem\_result",

"offset": 2

}

},

"\_score": 1.6739764,

"\_source": {

"sub": "sub3"

}

},

{

"\_index": "clg\_study",

"\_id": "4",

"\_nested": {

"field": "semesters",

"offset": 1,

"\_nested": {

"field": "sem\_result",

"offset": 3

}

},

"\_score": 1.6739764,

"\_source": {

"sub": "sub4"

}

},

{

"\_index": "clg\_study",

"\_id": "4",

"\_nested": {

"field": "semesters",

"offset": 1,

"\_nested": {

"field": "sem\_result",

"offset": 4

}

},

"\_score": 1.6739764,

"\_source": {

"sub": "sub5"

}

}

]

}

}

}

}

]

}

}

}

}

]

}

}