**Index creation**

**create index** idx\_name

**on** users(firstName, lastName)

**Пояснение**: Индекс состоит из firstName и lastName так как у нас в условии WHERE используются именно эти поля. **Id** является первичным ключом и соответственно в индексе (firstname, lastname) будет на него ссылка.

**Select query**

**select** id, firstname, lastname

**from** users

**where** firstname **LIKE** 'a%' **AND** lastname **LIKE** 'b%'

**order** **by** id

**Explain**

{

"query\_block": {

"select\_id": 1,

"cost\_info": {

"query\_cost": "56500.18"

},

"ordering\_operation": {

"using\_filesort": true,

"cost\_info": {

"sort\_cost": "17702.90"

},

"table": {

"table\_name": "users",

"access\_type": "range",

"possible\_keys": [

"idx\_name"

],

"key": "idx\_name",

"used\_key\_parts": [

"firstname"

],

"key\_length": "364",

"rows\_examined\_per\_scan": 159342,

"rows\_produced\_per\_join": 17702,

"filtered": "11.11",

"using\_index": true,

"cost\_info": {

"read\_cost": "37026.99",

"eval\_cost": "1770.29",

"prefix\_cost": "38797.28",

"data\_read\_per\_join": "32M"

},

"used\_columns": [

"id",

"firstname",

"lastname"

],

"attached\_condition": "((`new\_schema`.`users`.`firstname` like 'a%') and (`new\_schema`.`users`.`lastname` like 'b%'))"

}

}

}

}

Latency results

Throughput results