



Final Exam

Final: Question 1

Problem:

Consider the following aggregation pipelines:

• Pipeline 1

```
db.coll.aggregate([
  {"$match": {"field_a": {"$gt": 1983}}},
  {"$project": { "field_a": "$field_a.1", "field_b": 1, "field_c": 1
}},
  {"$replaceRoot":{"newRoot": {"_id": "$field_c", "field_b":
"$field_b"}}}},
  {"$out": "coll2"},
  {"$match": {"_id.field_f": {"$gt": 1}}},
  {"$replaceRoot":{"newRoot": {"_id": "$field_b", "field_c":
"$_id"}}}
])
```

COPY

• Pipeline 2

```
db.coll.aggregate([
  {"$match": {"field_a": {"$gt": 111}}},
  {"$geoNear": {
    "near": { "type": "Point", "coordinates": [ -73.99279 ,
40.719296 ] },
    "distanceField": "distance"}},
  {"$project": { "distance": "$distance", "name": 1, "_id": 0  }}
])
```

COPY

• Pipeline 3

```
db.coll.aggregate([
{
  "$facet": {
    "averageCount": [
      {"$unwind": "$array_field"},
      {"$group": {"_id": "$array_field", "count": {"$sum": 1}}}
    ],

```

COPY

```
    "categorized": [{"sortByCount": "$arrayField"}]
  },
},
{
  "$facet": {
    "new_shape": [{"project": {"range": "$categorized._id"}}],
    "stats": [{"match": {"range": 1}}, {"indexStats": {}}]
  }
}
])
```

Which of the following statements are correct?

Attempts Remaining: **Correct Answer**   

Check all answers that apply:

☐ **Pipeline 1** is incorrect because you can only have one `$replaceRoot` stage in your pipeline

☒ **Pipeline 2** is incorrect because `$geoNear` needs to be the first stage of our pipeline

☐ **Pipeline 2** fails because we cannot project `distance` field

☐ **Pipeline 3** fails since you can only have one `$facet` stage per pipeline

☐ **Pipeline 3** executes correctly

☒ **Pipeline 3** fails because `$indexStats` must be the first stage in a pipeline and may not be used within a `$facet`

☒ **Pipeline 1** fails since `$out` is required to be the last stage of the pipeline

[See detailed answer](#)

Proceed to next section

**Assignment is Due**

**13d:05hr:23m**

Dec 17, 17:00 UTC

**Your Grade**

**PASS/FAIL**

Submitted