

Code Implementation:

Product Schema:

```
const mongoose = require('mongoose');

const productSchema = new mongoose.Schema({
  name: String,
  categories: [String],
  variants: [{
    color: String,
    size: String,
    price: Number,
    stock: Number
  }],
  reviews: [{
    user: mongoose.ObjectId,
    rating: { type: Number, min: 1, max: 5 },
    comment: String
  }]
});

module.exports = mongoose.model('Product', productSchema);

Aggregation Query (Average Rating):

const result = await Product.aggregate([
  { $match: { _id: productId } },
  { $unwind: "$reviews" },
  { $group: {
    _id: null,
    avgRating: { $avg: "$reviews.rating" }
  }}
]);
```