

## 1. E-Commerce Store – Product & Orders

### users

```
json
{
  "bsonType": "object",
  "required": ["name", "email", "password"],
  "properties": {
    "name": { "bsonType": "string" },
    "email": {
      "bsonType": "string",
      "pattern": "^\\S+@\\S+\\.\\.\\S+$"
    },
    "password": { "bsonType": "string" }
  }
}
```

### Index:

```
js
db.users.createIndex({ email: 1 }, { unique: true });
```

### products

```
json
{
  "bsonType": "object",
  "required": ["title", "description", "price", "category", "stock"],
  "properties": {
    "title": { "bsonType": "string" },
    "description": { "bsonType": "string" },
    "price": { "bsonType": "number", "minimum": 0 },
    "category": { "bsonType": "string" },
    "stock": { "bsonType": "int", "minimum": 0 }
  }
}
```

## orders

json

```
{
  "bsonType": "object",
  "required": ["userId", "products", "totalAmount", "orderDate"],
  "properties": {
    "userId": { "bsonType": "objectId" },
    "products": {
      "bsonType": "array",
      "items": {
        "bsonType": "object",
        "required": ["productId", "quantity"],
        "properties": {
          "productId": { "bsonType": "objectId" },
          "quantity": { "bsonType": "int", "minimum": 1 }
        }
      }
    },
    "totalAmount": { "bsonType": "number", "minimum": 0 },
    "orderDate": { "bsonType": "date" }
  }
}
```

## reviews

json

```
{
  "bsonType": "object",
  "required": ["userId", "productId", "rating", "comment"],
  "properties": {
    "userId": { "bsonType": "objectId" },
    "productId": { "bsonType": "objectId" },
    "rating": { "bsonType": "int", "minimum": 1, "maximum": 5 },
    "comment": { "bsonType": "string", "minimumLength": 10 }
  }
}
```

```
    "comment": { "bsonType": "string" }
  }
}
```

## 2. Online Course Platform – Instructors & Students

### users

```
json
{
  "bsonType": "object",
  "required": ["name", "email", "role"],
  "properties": {
    "name": { "bsonType": "string" },
    "email": {
      "bsonType": "string",
      "pattern": "^\\S+@\\S+\\.\\.\\S+$"
    },
    "role": {
      "enum": ["student", "instructor"]
    }
  }
}
```

### courses

```
json
{
  "bsonType": "object",
  "required": ["title", "instructorId", "category", "price", "createdAt", "lessons"],
  "properties": {
    "title": { "bsonType": "string" },
    "instructorId": { "bsonType": "objectId" },
    "category": { "bsonType": "string" },
    "price": { "bsonType": "number", "minimum": 0 },
    "createdAt": { "bsonType": "date" },

```

```

"lessons": {
  "bsonType": "array",
  "items": {
    "bsonType": "object",
    "required": ["title", "videoURL", "duration"],
    "properties": {
      "title": { "bsonType": "string" },
      "videoURL": { "bsonType": "string" },
      "duration": { "bsonType": "number", "minimum": 1 }
    }
  }
}

```

#### **enrollments**

```

json
{
  "bsonType": "object",
  "required": ["userId", "courseId", "enrolledAt"],
  "properties": {
    "userId": { "bsonType": "objectId" },
    "courseId": { "bsonType": "objectId" },
    "enrolledAt": { "bsonType": "date" }
  }
}

```

---

### **3. Event Booking System – Organizers & Attendees**

#### **users**

```

json
{
  "bsonType": "object",

```

```

"required": ["name", "email", "role"],
"properties": {
  "name": { "bsonType": "string" },
  "email": {
    "bsonType": "string",
    "pattern": "^\\S+@\\S+\\.\\S+$"
  },
  "role": {
    "enum": ["organizer", "attendee"]
  }
}
}

```

#### **Index:**

js

```
db.users.createIndex({ email: 1 }, { unique: true });
```

#### **events**

json

```

{
  "bsonType": "object",
  "required": ["title", "organizerId", "location", "startTime", "endTime", "capacity"],
  "properties": {
    "title": { "bsonType": "string" },
    "organizerId": { "bsonType": "objectId" },
    "location": { "bsonType": "string" },
    "startTime": { "bsonType": "date" },
    "endTime": { "bsonType": "date" },
    "capacity": { "bsonType": "int", "minimum": 1 }
  }
}

```

#### **bookings**

json

```
{
  "bsonType": "object",
  "required": ["eventId", "attendeeld", "bookingDate"],
  "properties": {
    "eventId": { "bsonType": "objectId" },
    "attendeeld": { "bsonType": "objectId" },
    "bookingDate": { "bsonType": "date" }
  }
}
```

---

#### 4. Blogging Platform – Authors & Articles

##### authors

json

```
{
  "bsonType": "object",
  "required": ["name", "email", "bio"],
  "properties": {
    "name": { "bsonType": "string" },
    "email": { "bsonType": "string", "pattern": "^\\S+@\\S+\\.\\S+$" },
    "bio": { "bsonType": "string" }
  }
}
```

##### articles

json

```
{
  "bsonType": "object",
  "required": ["title", "content", "authorId", "tags", "published", "createdAt"],
  "properties": {
    "title": { "bsonType": "string" },
    "content": { "bsonType": "string" },
    "authorId": { "bsonType": "objectId" },

```

```
"tags": {
  "bsonType": "array",
  "items": { "bsonType": "string" }
},
"published": { "bsonType": "bool" },
"createdAt": { "bsonType": "date" }
}
}
```

#### **comments**

json

```
{
  "bsonType": "object",
  "required": ["articleId", "userName", "commentText", "postedAt"],
  "properties": {
    "articleId": { "bsonType": "objectId" },
    "userName": { "bsonType": "string" },
    "commentText": { "bsonType": "string" },
    "postedAt": { "bsonType": "date" }
  }
}
```

---

### **5. Subscription App – Users & Plans**

#### **users**

json

```
{
  "bsonType": "object",
  "required": ["email", "name", "signupDate"],
  "properties": {
    "email": { "bsonType": "string", "pattern": "^\\S+@\\S+\\.\\S+$" },
    "name": { "bsonType": "string" },
    "signupDate": { "bsonType": "date" }
  }
}
```

```

    }
  }
  plans
  json
  {
    "bsonType": "object",
    "required": ["name", "price", "features", "billingCycle"],
    "properties": {
      "name": { "bsonType": "string" },
      "price": { "bsonType": "number", "minimum": 0 },
      "features": {
        "bsonType": "array",
        "items": { "bsonType": "string" }
      },
      "billingCycle": {
        "enum": ["monthly", "yearly"]
      }
    }
  }
}

```

### **subscriptions**

```

  json
  {
    "bsonType": "object",
    "required": ["userId", "planId", "startDate", "isActive"],
    "properties": {
      "userId": { "bsonType": "objectId" },
      "planId": { "bsonType": "objectId" },
      "startDate": { "bsonType": "date" },
      "isActive": { "bsonType": "bool" }
    }
  }
}

```



