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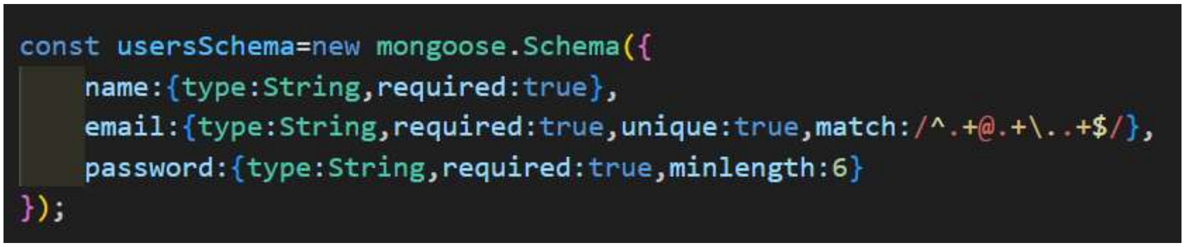
Sec:B

2315001502

Assignment-2 (Schema Creation)

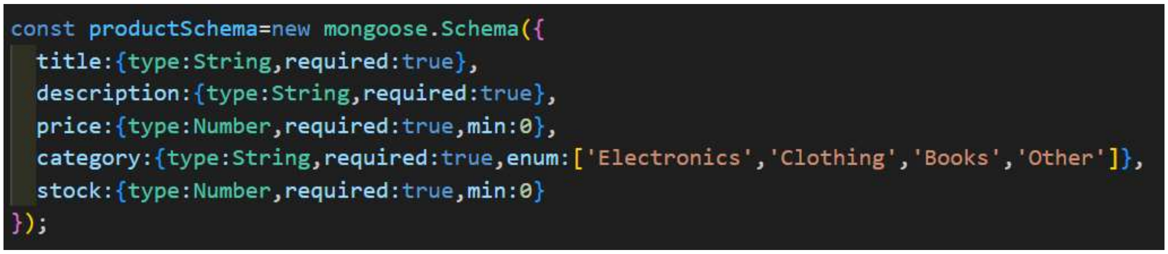
1. E-Commerce Schema

a. Users Schema



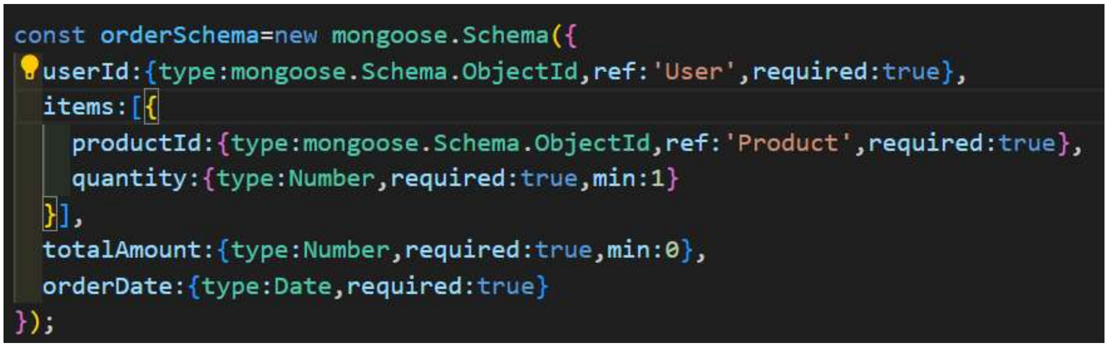
```
const usersSchema=new mongoose.Schema({
    name:{type:String,required:true},
    email:{type:String,required:true,unique:true,match:/^.+@.+\..+$/},
    password:{type:String,required:true,minlength:6}
});
```

b. Product Schema



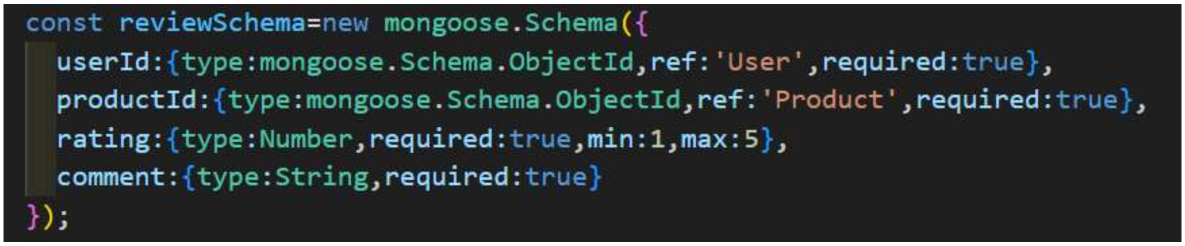
```
const productSchema=new mongoose.Schema({
  title:{type:String,required:true},
  description:{type:String,required:true},
  price:{type:Number,required:true,min:0},
  category:{type:String,required:true,enum:['Electronics','Clothing','Books','Other']},
  stock:{type:Number,required:true,min:0}
});
```

c. Order Schema



```
const orderSchema=new mongoose.Schema({
  userId:{type:mongoose.Schema.ObjectId,ref:'User',required:true},
  items:[{
    productId:{type:mongoose.Schema.ObjectId,ref:'Product',required:true},
    quantity:{type:Number,required:true,min:1}
  }],
  totalAmount:{type:Number,required:true,min:0},
  orderDate:{type:Date,required:true}
});
```

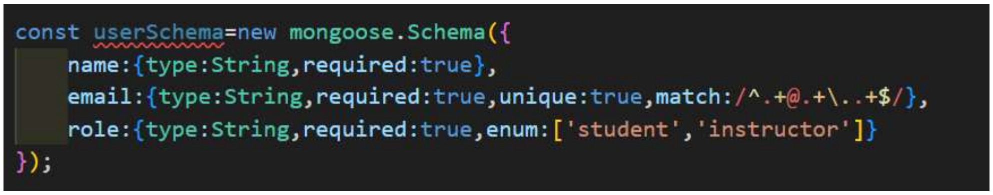
d. Review Schema



```
const reviewSchema=new mongoose.Schema({
  userId:{type:mongoose.Schema.ObjectId,ref:'User',required:true},
  productId:{type:mongoose.Schema.ObjectId,ref:'Product',required:true},
  rating:{type:Number,required:true,min:1,max:5},
  comment:{type:String,required:true}
});
```

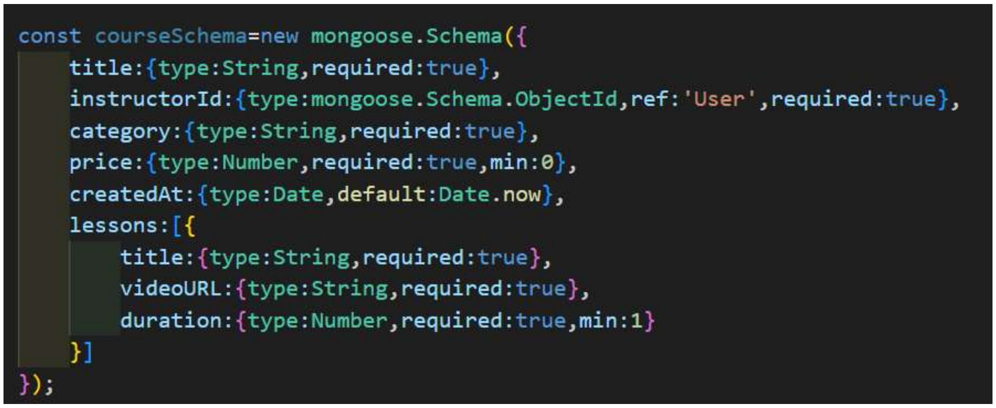
2. Online Course Platform

a. User Schema



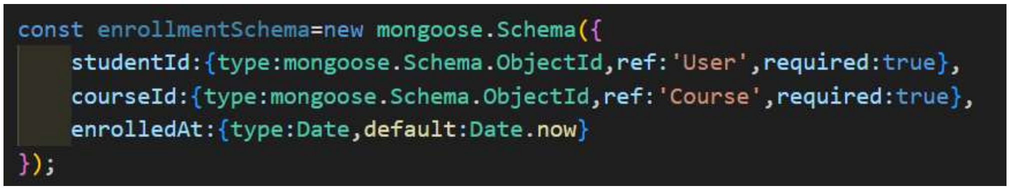
```
const userSchema=new mongoose.Schema({
    name:{type:String,required:true},
    email:{type:String,required:true,unique:true,match:/^.+@.+\..+$/},
    role:{type:String,required:true,enum:['student','instructor']}
});
```

b. Course (Lessons embedded)



```
const courseSchema=new mongoose.Schema({
    title:{type:String,required:true},
    instructorId:{type:mongoose.Schema.ObjectId,ref:'User',required:true},
    category:{type:String,required:true},
    price:{type:Number,required:true,min:0},
    createdAt:{type:Date,default:Date.now},
    lessons:[{
        title:{type:String,required:true},
        videoURL:{type:String,required:true},
        duration:{type:Number,required:true,min:1}
    }]
});
```

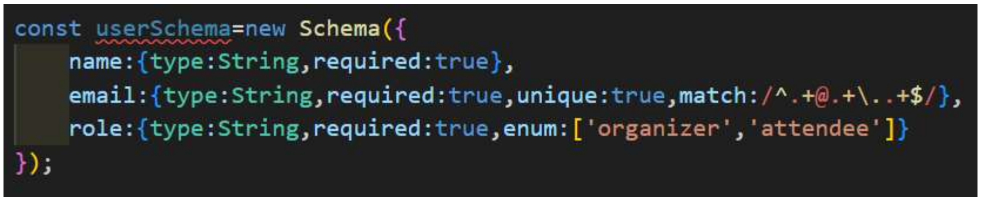
c. Enrollments Schema



```
const enrollmentSchema=new mongoose.Schema({
    studentId:{type:mongoose.Schema.ObjectId,ref:'User',required:true},
    courseId:{type:mongoose.Schema.ObjectId,ref:'Course',required:true},
    enrolledAt:{type:Date,default:Date.now}
});
```

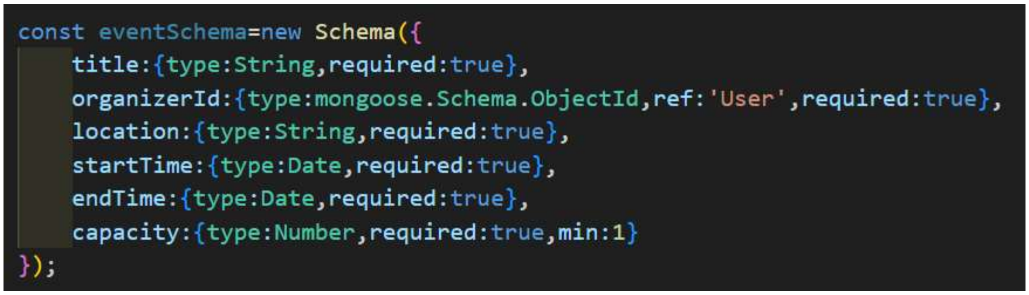
3. Event Booking system

a. User



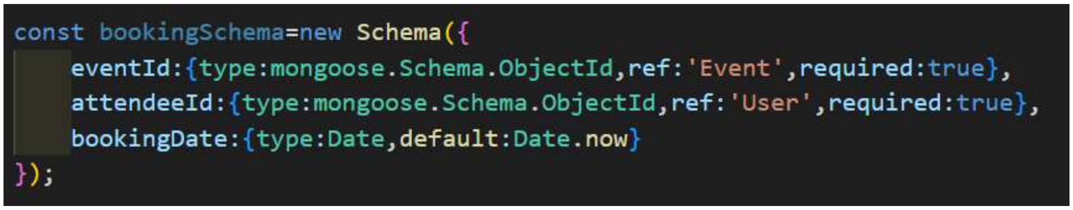
```
const userSchema=new Schema({
    name:{type:String,required:true},
    email:{type:String,required:true,unique:true,match:/^.+@.+\..+$/},
    role:{type:String,required:true,enum:['organizer','attendee']}
});
```

b. Event



```
const eventSchema=new Schema({
    title:{type:String,required:true},
    organizerId:{type:mongoose.Schema.ObjectId,ref:'User',required:true},
    location:{type:String,required:true},
    startTime:{type:Date,required:true},
    endTime:{type:Date,required:true},
    capacity:{type:Number,required:true,min:1}
});
```

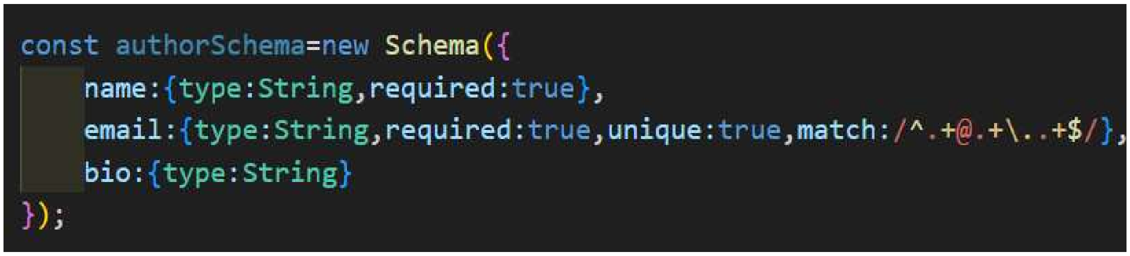
c. Booking



```
const bookingSchema=new Schema({
    eventId:{type:mongoose.Schema.ObjectId,ref:'Event',required:true},
    attendeeId:{type:mongoose.Schema.ObjectId,ref:'User',required:true},
    bookingDate:{type:Date,default:Date.now}
});
```

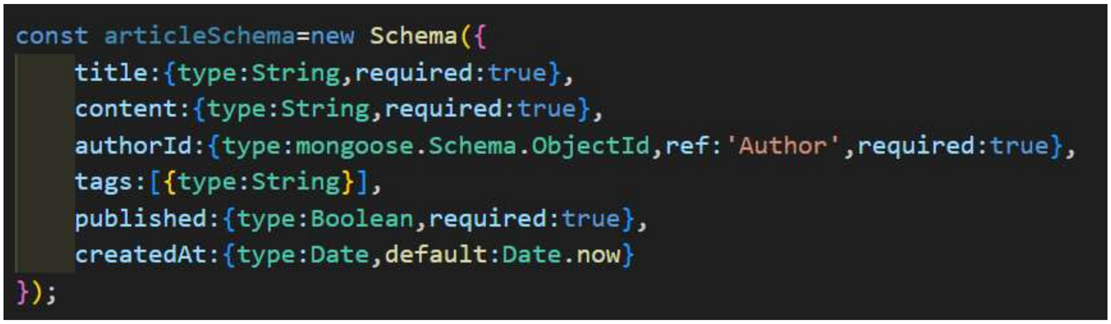
4. Blogging Platform

a. Author



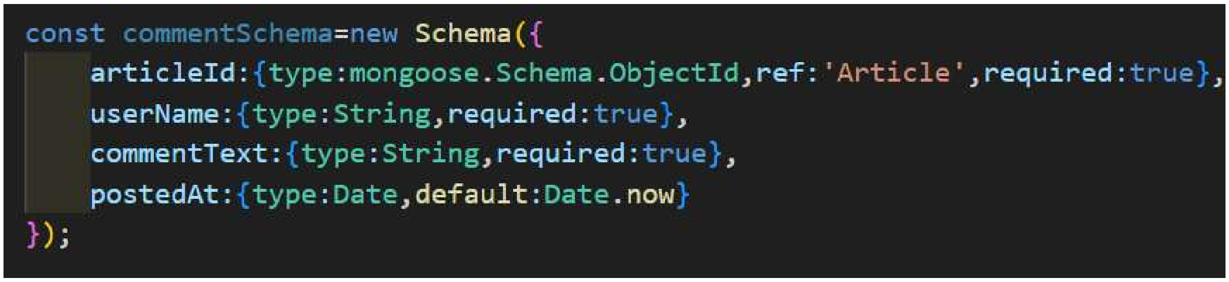
```
const authorSchema=new Schema({
    name:{type:String,required:true},
    email:{type:String,required:true,unique:true,match:/^.+@.+\..+$/},
    bio:{type:String}
});
```

b. Article



```
const articleSchema=new Schema({
    title:{type:String,required:true},
    content:{type:String,required:true},
    authorId:{type:mongoose.Schema.ObjectId,ref:'Author',required:true},
    tags:[{type:String}],
    published:{type:Boolean,required:true},
    createdAt:{type:Date,default:Date.now}
});
```

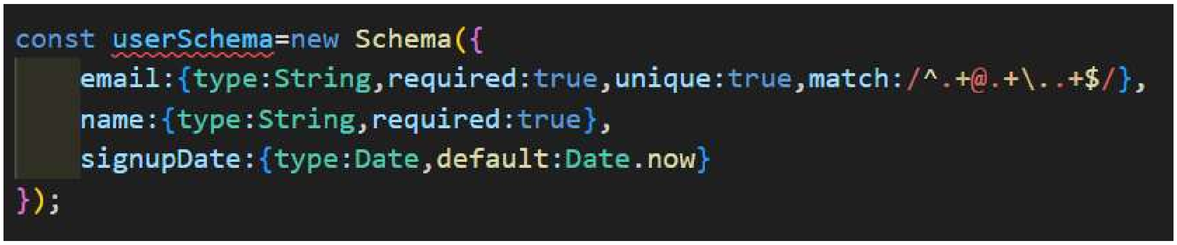
c. Comment



```
const commentSchema=new Schema({
    articleId:{type:mongoose.Schema.ObjectId,ref:'Article',required:true},
    userName:{type:String,required:true},
    commentText:{type:String,required:true},
    postedAt:{type:Date,default:Date.now}
});
```

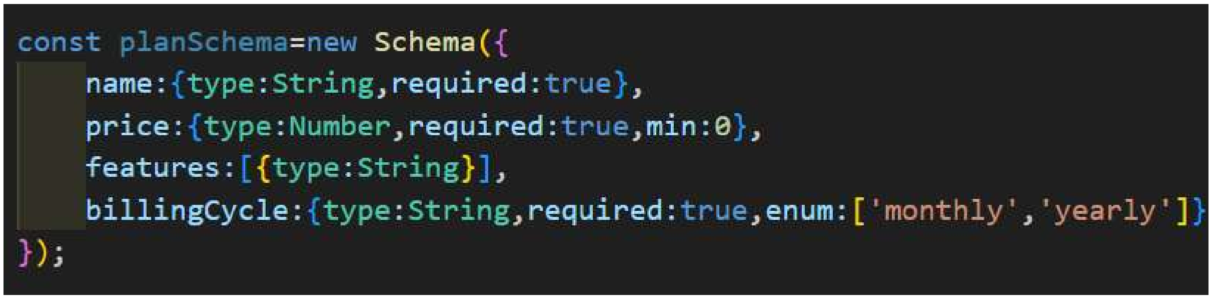
5. Subscription App

a. User



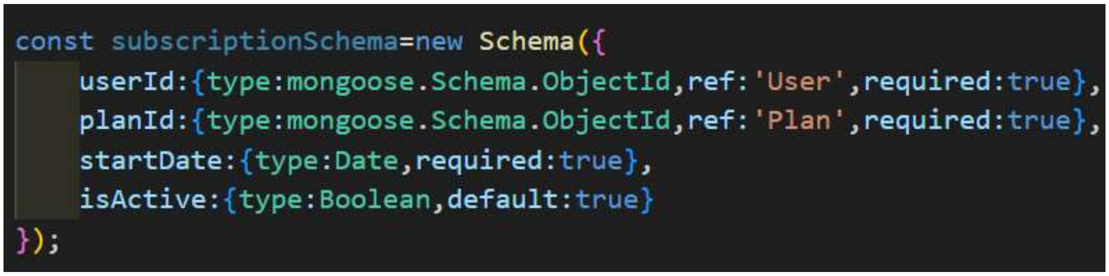
```
const userSchema=new Schema({
    email:{type:String,required:true,unique:true,match:/^.+@.+\..+$/},
    name:{type:String,required:true},
    signupDate:{type:Date,default:Date.now}
});
```

b. Plan



```
const planSchema=new Schema({
    name:{type:String,required:true},
    price:{type:Number,required:true,min:0},
    features:[{type:String}],
    billingCycle:{type:String,required:true,enum:['monthly','yearly']}
});
```

c. Subscription



```
const subscriptionSchema=new Schema({
    userId:{type:mongoose.Schema.ObjectId,ref:'User',required:true},
    planId:{type:mongoose.Schema.ObjectId,ref:'Plan',required:true},
    startDate:{type:Date,required:true},
    isActive:{type:Boolean,default:true}
});
```