Building the Mongoose Schema

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Introduction

Everything starts with a Schema…

Comparison: RDBMS – Mongoose Schema

Complex Schema

Simple Schema

Comparison – RDBMS Schemas

Mongoose Schema

Name
Description
IsActive

Categories […]

Questions […]
QuestionType
QuestionText

Answers […]

Simple Schema Example

```javascript
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

var customerSchema = new Schema({
    name:      String,
    address:   String,
    city:      String,
    state:     String,
    country:   String,
    zipCode:   Number,
    createdOn: Date,
    isActive:  Boolean
});


var simpleSchema = new Schema({ fieldName: SchemaType });
```

Allowed Data Types

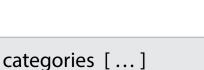| Mongoose Schema Types	JavaScript Data Types
String	String
Number	Number
Date	Object
Buffer	Object
Boolean	Boolean
Mixed	Object
ObjectId	Object
Array	Array (Object)

More Complex Schema Example

```javascript
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

// child address schema...
var addressSchema = new Schema({
    type: String,
    street: String,
    city: String,
    state: String,
    country: String,
    postalCode: Number
});

// parent customer schema...
var customerSchema = new Schema({
    name: {
        first: String,
        last: String
    },
    address: [ addressSchema ],
    createdOn: { type: Date, default: Date.now },
    isActive: { type: Boolean, default: true},
});
```

```javascript
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

// Pre-define sub-documents...
var subCategory = {
        name: String,
        description: String,
        isActive: Boolean };

var subAnswers = {
        answerText: String,
        isCorrect: Boolean,
        displayOrder: Number };

var subQuestions = {
        questionType: String,
        questionText: String,
        answers: [ subAnswers ] };

// Define main document schema...
var quizSchema = new Schema({
    name: String,
    description: String,
    categories: [ subCategory ],
    questions: [ subQuestions ]
});
```

name
description
isActive

categories [...]

questions [...]

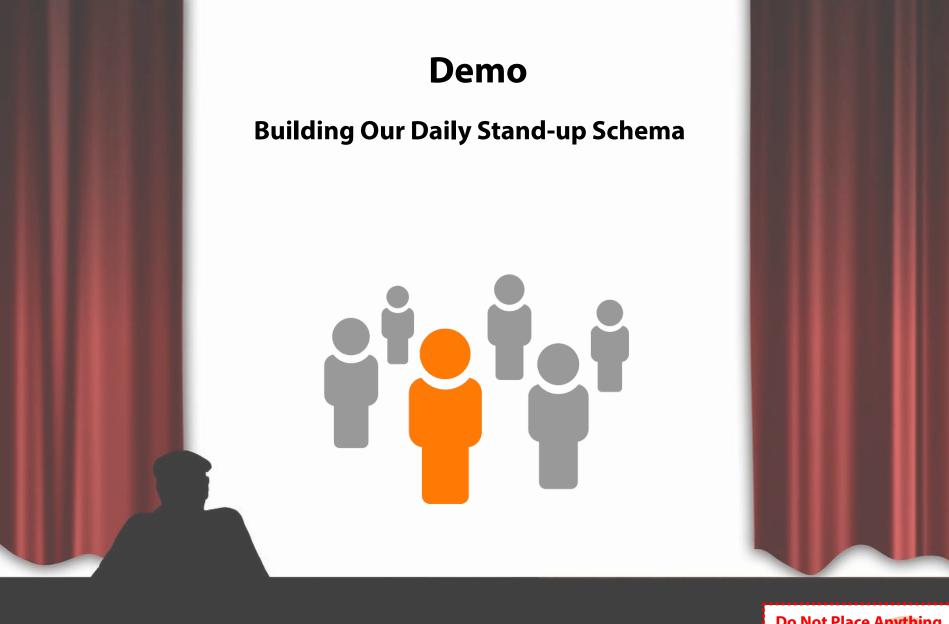questionType
questionText

answers [...]

```javascript
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

// Pre-define sub-documents...
var subCategory = {
        name: String,
        description: String,
        isActive: Boolean };

var subAnswers = {
        answerText: String,
        isCorrect: Boolean,
        displayOrder: Number };

var subQuestions = {
        type: String,
        text: String,
        answers: [ subAnswers ] };

// Define main document schema...
var quizSchema = new Schema({
    name: String,
    description: String,
    categories: [ subCategory ],
    questions: [ subQuestions ]
});
```

```json
{
    "_id" : ObjectId("5422cef53ba88f182229f450"),
    "name" : "Test Quiz",
    "description" : "Test Quiz long description...",
    "questions" : [
      "[object Object]",
      "[object Object]"
    ],
    "categories" : [
      {
        "name" : "programming",
        "description" : "programming category",
        "isActive" : true,
        "_id" : ObjectId("5422cef53ba88f182229f452")
      },
      {
        "name" : "Test2",
        "description" : "Test 2 category",
        "isActive" : true,
        "_id" : ObjectId("5422cef53ba88f182229f451")
      }
    ],
    "__v" : 0
}
```

oops!

```javascript
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

// Pre-define sub-documents...
var subCategory = {
        name: String,
        description: String,
        isActive: Boolean };

var subAnswers = {
        answerText: String,
        isCorrect: Boolean,
        displayOrder: Number };

var subQuestions = {
        type: { type: String },
        text: String,
        answers: [ subAnswers ] };

// Define main document schema...
var quizSchema = new Schema({
    name: String,
    description: String,
    categories: [ subCategory ],
    questions: [ subQuestions ]
});
```

```json
{
    "_id" : ObjectId("5422cfdb36663a0424d7a66b"),
    "name" : "Test Quiz",
    "description" : "Test Quiz long description...",
    "questions" : [
      {
        "type" : "Multiple-Choice",
        "text" : "What is your favorite color?",
        "_id" : ObjectId("5422cfdb36663a0424d7a670"),
        "answers" : [
          {
            "answerText" : "Red",
            "isCorrect" : false,
            "displayOrder" : 1,
            "_id" : ObjectId("5422cfdb36663a0424d7a673")
          },
          // abbreviated for brevity sake . . .
    ],
    "categories" : [
        // abbreviated for brevity sake . . .
    ]
}
```

hing

Demo

Building Our Daily Stand-up Schema

Module Summary

Schema

Comparison

Simple Example

Allowed Schema Types

Standup Schema

Complex Example