**ADVANCED WEB APPLICATION DEVELOPMENT**

**ASSIGNMENT WEEK 7**

**1.Explain Schema and Model in MONGODB in details**

**Answer 1:** n MongoDB, a schema is a blueprint for the structure of a document in a collection. [It defines the fields and their types, default values, validators, and other constraints **1**](https://progressivecoder.com/what-is-a-mongodb-schema/).

A model is an object that represents a collection in MongoDB. [It provides an interface for querying the database and performing CRUD operations on the documents in the collection **1**](https://progressivecoder.com/what-is-a-mongodb-schema/).

Here’s an example of how to define a schema and create a model in MongoDB using Mongoose:

const mongoose = require('mongoose');

const userSchema = new mongoose.Schema({

name: {

type: String,

required: true

},

email: {

type: String,

required: true,

unique: true

},

password: {

type: String,

required: true

},

createdAt: {

type: Date,

default: Date.now

}

});

const User = mongoose.model('User', userSchema);

module.exports = User;

In this example, we define a schema for a user document with four fields (name, email, password, and createdAt) [**2**](https://www.mongodb.com/developer/article/mongodb-schema-design-best-practices/). [We then create a model for the user collection using the schema and export it as a module](https://www.mongodb.com/developer/article/mongodb-schema-design-best-practices/)

2.Write a MongoDB Database to display all the documents in the collection library.

Answer 2: Here’s an example of how to display all the documents in the “library” collection in MongoDB using Mongoose:

const mongoose = require('mongoose');

const Library = require('./models/library');

mongoose.connect('mongodb://localhost:27017/myapp', { useNewUrlParser: true });

Library.find({}, function(err, docs) {

if (err) {

console.log(err);

} else {

console.log(docs);

}

});

In this example, we first connect to the MongoDB database using Mongoose . We then use the find() method on the Library model to retrieve all the documents in the “library” collection . The first argument to find() is an empty object, which means we want to retrieve all documents in the collection . The second argument is a callback function that takes two parameters: an error object (if there is an error) and an array of documents (if there are no errors) . In this example, we simply log the array of documents to the console .

3.How to define the Schema in mongoose?

**Answer3:** Here’s an example of how to define a schema in Mongoose:

const mongoose = require('mongoose');

const userSchema = new mongoose.Schema({

name: {

type: String,

required: true

},

email: {

type: String,

required: true,

unique: true

},

password: {

type: String,

required: true

},

createdAt: {

type: Date,

default: Date.now

}

});

module.exports = mongoose.model('User', userSchema);

In this example, we define a schema for a user document with four fields (name, email, password, and createdAt) . We then export the model as a module .