# LA8: Building a REST API with Express, Node, and MongoDB

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```
    app
    controllers
    Js app.controller.js
    models
    Js app.model.js
    routes
    Js app.routes.js
    node_modules
{} package-lock.json
{} package.json
} server.js
```

## Server.js

```
app.use(bodyParser.urlencoded({ extended: true }));
app.use(bodyParser.json());
app.get("/", (req, res) => {
    res.json({ message: "Server is running :D" });
});
let PORT = 8080;
app.listen(PORT, () => {
    console.log(`Server is listening on port ${PORT}`);
});
// .....
require('./app/routes/app.routes.js')(app);
// .....
```

### App.routes.js

```
const express = require("express");
const bodyParser = require("body-parser");
const mongoose = require("mongoose");
mongoose.Promise = global.Promise;
mongoose.connect("mongodb://localhost:27017",
      useNewUrlParser: true,
  .then(() => {
   console.log("Successfully connected to the database");
  .catch((err) => {
    console.log("Could not connect to the database. Error...", err);
    process.exit();
 });
const app = express();
app.use(bodyParser.urlencoded({ extended: true }));
app.use(bodyParser.json());
app.get("/", (req, res) => {
 res.json({ message: "Server is running :D" });
```

```
});

let PORT = 8080;

app.listen(PORT, () => {
   console.log(`Server is listening on port ${PORT}`);
});

// .....

require('./app/routes/app.routes.js')(app);
// .....
```

### App.model.js

```
const express = require("express");
const bodyParser = require("body-parser");
const mongoose = require("mongoose");
mongoose.Promise = global.Promise;
mongoose.connect("mongodb://localhost:27017",
      useNewUrlParser: true,
    }
  .then(() => {
   console.log("Successfully connected to the database");
  .catch((err) => {
    console.log("Could not connect to the database. Error...", err);
   process.exit();
  });
const app = express();
app.use(bodyParser.urlencoded({ extended: true }));
app.use(bodyParser.json());
app.get("/", (req, res) => {
 res.json({ message: "Server is running :D" });
});
let PORT = 8080;
app.listen(PORT, () => {
 console.log(`Server is listening on port ${PORT}`);
});
```

```
// .....
require('./app/routes/app.routes.js')(app);
// .....
```

#### App.controller.js

```
const App = require("../models/app.model.js");
// Create and Save a new Message
exports.create = (req, res) => {
  const message = new App({
    message: req.body.message,
  });
  message
    .save()
    .then((data) => {
      res.send(data);
    })
    .catch((err) => {
      res.status(500).send({
        message:
          err.message |  "Some error occurred while creating the Message.",
      });
    });
};
// Retrieve all messages from the database.
exports.findAll = (req, res) => {
  App.find()
    .then((data) => {
      res.send(data);
    })
    .catch((err) => {
      res.status(500).send({
        message:
          err.message |  "Some error occurred while retrieving messages.",
      });
    });
};
// Find a single message with a messageId
exports.findOne = (req, res) => {
 App.findById(req.params.messageId)
   .then((data) => {
```

```
if (!data) {
        return res.status(404).send({
          message: "Message not found with id " + req.params.messageId,
        });
      res.send(data);
    })
    .catch((err) => {
      if (err.kind === "ObjectId") {
        return res.status(404).send({
          message: "Message not found with id " + req.params.messageId,
        });
      }
      return res.status(500).send({
        message: "Error retrieving message with id " + req.params.messageId,
      });
    });
};
// Update a message identified by the messageId in the request
exports.update = (req, res) => {
  App.findByIdAndUpdate(
    req.params.messageId,
      message: req.body.message,
    { new: true }
    .then((data) => {
      if (!data) {
        return res.status(404).send({
          message: "Message not found with id " + req.params.messageId,
        });
      }
      res.send(data);
    })
    .catch((err) => {
      if (err.kind === "ObjectId") {
        return res.status(404).send({
          message: "Message not found with id " + req.params.messageId,
        });
      return res.status(500).send({
        message: "Error updating message with id " + req.params.messageId,
      });
    });
};
```

```
// Delete a message with the specified messageId in the request
exports.delete = (req, res) => {
  App.findByIdAndRemove(req.params.messageId)
    .then((data) => {
      if (!data) {
        return res.status(404).send({
          message: "Message not found with id " + req.params.messageId,
        });
      }
      res.send({ message: "Message deleted successfully!" });
    })
    .catch((err) => {
      if (err.kind === "ObjectId" || err.name === "NotFound") {
        return res.status(404).send({
          message: "Message not found with id " + req.params.messageId,
        });
      }
      return res.status(500).send({
        message: "Could not delete message with id " + req.params.messageId,
     });
    });
```