CRUD Nodejs y Mongodb Fazt Code

https://www.youtube.com/watch?v=3J925fRl UE

Resumo dos vídeos feito por Roberto Pinheiro

Criando arquivo de dependências

```
npm init --yes
```

package.json

```
{
  "name": "crud-nodejs-mongodb",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}
```

Instalando pacotes

npm install express mongoose ejs morgan

```
C:\laragon\www\crud-nodejs-mongodb>npm install express mongoose ejs morgan
npm notice created a lockfile as package-lock.json. You should commit this file.
npm WARN crud-nodejs-mongodb@1.0.0 No description
npm WARN crud-nodejs-mongodb@1.0.0 No repository field.

+ ejs@2.6.2
+ morgan@1.9.1
+ mongoose@5.6.10
+ express@4.17.1
added 76 packages from 52 contributors and audited 175 packages in 69.283s
found 0 vulnerabilities
```

npm install nodemon -D

```
C:\laragon\www\crud-nodejs-mongodb>npm install nodemon -D

> nodemon@1.19.1 postinstall C:\laragon\www\crud-nodejs-mongodb\node_modules\nodemon
> node bin/postinstall || exit 0

npm wARN crud-nodejs-mongodb@1.0.0 No description
npm wARN crud-nodejs-mongodb@1.0.0 No repository field.
npm wARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.9 (node_modules\fsevents):
npm wARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.9: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"ia32"})

+ nodemon@1.19.1
added 214 packages from 128 contributors and audited 2444 packages in 126.559s
found 0 vulnerabilities
```

package.json

```
"name": "crud-nodejs-mongodb",
 "version": "1.0.0",
 "description": "",
 "main": "index.js",
 "scripts": {
  "test": "echo \"Error: no test specified\" && exit 1"
 },
 "keywords": [],
 "author": ""
 "license": "ISC",
 "dependencies": {
  "ejs": "^2.6.2",
  "express": "^4.17.1",
  "mongoose": "^5.6.10",
  "morgan": "^1.9.1"
 "devDependencies": {
  "nodemon": "^1.19.1"
}
```

Configurando o servidor

app.js

O erro especificado é porque ainda não foi definida nenhuma rota para a página principal.

package.json

```
"name": "crud-nodejs-mongodb",
"version": "1.0.0",
"description": "",
"main": "index.js",
"scripts": {
"start": "node src/app.js",
 "dev": "nodemon src/app.js"
"keywords": [],
"author": "",
"license": "ISC",
"dependencies": {
 "ejs": "^2.6.2",
 "express": "^4.17.1",
 "mongoose": "^5.6.10",
 "morgan": "^1.9.1"
},
```

```
"devDependencies": {
    "nodemon": "^1.19.1"
    }
}
```

Em produção (production), no servidor de hospedagem será executado:

npm start

```
C:\laragon\www\crud-nodejs-mongodb>npm start
> crud-nodejs-mongodb@1.0.0 start C:\laragon\www\crud-nodejs-mongodb
> node src/app.js
server on port 3000
```

Em desenvolvimento (devlopment), no servidor local será executado:

npm run dev

```
C:\laragon\www\crud-nodejs-mongodb>npm run dev

> crud-nodejs-mongodb@1.0.0 dev C:\laragon\www\crud-nodejs-mongodb
> nodemon src/app.js

[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node src/app.js`
server on port 3000
```

Configurando views

app.js

```
const path = require('path');
const express = require('express');
const app = express();

/* settings */

// configurando a porta do servidor
app.set('port', process.env.PORT || 3000);

// configurando o diretório de views
app.set('views', path.join(__dirname, 'views'));

// definindo o motor de templates
app.set('view engine', 'ejs');

/* starting the server */
app.listen(app.get('port'), () => {
   console.log(`server on port ${app.get('port')}`);
});
```

Configurando Middlewares

app.js

```
const path = require('path');
const express = require('express');
const morgan = require('morgan');
const app = express();
/* settings */
// configurando a porta do servidor
app.set('port', process.env.PORT || 3000);
// configurando o diretório de views
app.set('views', path.join(__dirname, 'views'));
// definindo o motor de templates
app.set('view engine', 'ejs');
/* middlewares */
app.use(morgan('dev'));
/* starting the server */
app.listen(app.get('port'), () => {
 console.log(`server on port ${app.get('port')}`);
});
 Error
                           X
                                   i localhost:3000
 Cannot GET /
```

```
C:\laragon\www\crud-nodejs-mongodb>npm run dev

> crud-nodejs-mongodb@1.0.0 dev C:\laragon\www\crud-nodejs-mongodb
> nodemon src/app.js

[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node src/app.js`
server on port 3000

GET / 404 8.192 ms - 139
```

Conectando com o banco de dados

Rodando o servidor do Mongo

- Criar a pasta c:\mongodb e copiar os arquivos do Mongo para dentro dela.
- Dentro da pasta mongodo criar a subpasta data e dentro dela criar a subpasta db.



- Inserir o caminho da pasta bin do MongoDB no path do Windows.

C:\mongodb\bin

Importante: É dentro desta pasta mongodb/data/db que serão salvos os arquivos criados pelo Mongo.

Abrindo o servidor do MongoDB no Windows 7 - 32 bits

Sempre que for trabalhar com o MongoDB é necessário abrir o seu servidor. Para isso, entre no seu terminal com o seguinte comando:

mongod --storageEngine=mmapv1 --dbpath c:\mongodb\data\db --port 27017

```
C:\laragon\www\crud-nodejs-mongodb>mongod --storageEngine=mmapv1 --dbpath c:\mongodb\data\db --port 27017
 2019-08-24T02:04:51.282-0300 I CONTROL
                                                                                        [main] 32-bit servers don't have journaling enabled by default. Please use --journal if you want durability.
 2019-08-24T02:04:51.284-0300 W CONTROL
 2019-08-24T02:04:51.284-0300 I CONTROL
2019-08-24T02:04:51.362-0300 I CONTROL
2019-08-24T02:04:51.549-0300 I CONTROL
                                                                                         [main]
                                                                                         [main] Hotfix KB2731284 or later update is not installed, will zero-out data files
                                                                                         [initandlisten] MongoDB starting : pid=13388 port=27017 dbpath=c:\mongodb\data\db 32-bit host=Beto-PC
[initandlisten] targetMinOS: Windows Vista/Windows Server 2008
2019-08-24102:04:51.59-0300 I CONTROL
2019-08-24702:04:51.550-0300 I CONTROL
2019-08-24702:04:51.550-0300 I CONTROL
2019-08-24702:04:51.550-0300 I CONTROL
2019-08-24702:04:51.550-0300 I CONTROL
                                                                                        [initandlisten] targetMinOS: Windows Vista/Windows Server 2008
[initandlisten] db version v3.2.22
[initandlisten] git version: 105acca0d443f9a47c1a5bd608fd7133840a58dd
[initandlisten] allocator: tcmalloc
[initandlisten] modules: none
[initandlisten] build environment:
[initandlisten] distarch: i386
[initandlisten] target_arch: i386
[initandlisten] options: { net: { port: 27017 }, storage: { dbPath: "c:\mongodb\data\db", engine: "mmapv1" } }
2019-08-24T02:04:51.550-0300 I CONTROL
2019-08-24T02:04:51.550-0300 I CONTROL
2019-08-24T02:04:51.550-0300 I CONTROL
2019-08-24T02:04:51.551-0300 I CONTROL
                                                                                        [initandlisten]
[initandlisten] ** WARNING: This 32-bit MongoDB binary is deprecated
 2019-08-24T02:04:51.686-0300 I CONTROL
 2019-08-24T02:04:51.687-0300 I CONTROL
2019-08-24T02:04:51.687-0300 I CONTROL
                                                                                        [initandlisten]
[initandlisten] ** NOTE: This is a 32 bit MongoDB binary.
[initandlisten] ** 32 bit builds are limited to less than 2GB of data (or less with --journal).
[initandlisten] ** Note that journaling defaults to off for 32 bit and is currently off.
[initandlisten] ** See http://dochub.mongodb.org/core/32bit
 2019-08-24T02:04:51.688-0300 I CONTROL
2019-08-24T02:04:51.689-0300 I CONTROL
 2019-08-24T02:04:51.690-0300 I CONTROL
2019-08-24T02:04:51.690-0300 I CONTROL
2019-08-24102:04:51.691-0300 I CONTROL
2019-08-24102:04:51.691-0300 I CONTROL
2019-08-24102:04:51.692-0300 I CONTROL
2019-08-24102:04:52.249-0300 I NETWORK
2019-08-24102:04:55.130-0300 W FTDC
                                                                                         [initandlisten]
2019-08-24102:04:52.249-0300 I NETWORK [HostnameCanonicalizationWorker] Starting hostname canonicalization worker
2019-08-24102:04:55.130-0300 W FTDC [initandlisten] Failed to initialize Performance Counters for FTDC: WindowsPdhError: PdhExpandCounterPathW fai
led with 'O objeto especificado não foi encontrado no computador.' for counter '\Processor(_Total)\% Idle Time'
2019-08-24102:04:55.130-0300 I FTDC [initandlisten] Initializing full-time diagnostic data capture with directory 'c:/mongodb/data/db/diagnostic.d
 2019-08-24T02:04:55.162-0300 I NETWORK [initandlisten] waiting for connections on port 27017
```

Configurando as rotas e a conexão com o BD

app.js

```
const path = require('path');
const express = require('express');
const morgan = require('morgan');
const mongoose = require('mongoose');
const app = express();
/* connection to db */
mongoose.connect('mongodb://localhost/crud-mongo')
 .then(db => console.log('db connected'))
 .catch(err => console.log(err));
/* Importing routes */
const indexRoutes = require('./routes/index');
/* settings */
// configurando a porta do servidor
app.set('port', process.env.PORT | 3000);
// configurando o diretório de views
app.set('views', path.join(__dirname, 'views'));
// definindo o motor de templates
app.set('view engine', 'ejs');
/* middlewares */
app.use(morgan('dev'));
// para entender os dados que vem de um formulário
app.use(express.urlencoded({extended: false}));
/* routes */
app.use('/', indexRoutes);
```

```
/* starting the server */
app.listen(app.get('port'), () => {
  console.log(`server on port ${app.get('port')}`);
});
```

Não é necessário criar a BD porque se ela não existe será criada automaticamente com o nome dado. Nesse caso, o nome do database criado será crud-mongo.

```
[nodemon] restarting due to changes...
[nodemon] restarting due to changes...
[nodemon] starting in node src/app.js'

(node:sl2168) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.

server on port 3000

db connected

[
```

Uma conexão agora está aberta:

```
2019-08-24T02:04:55.162-0300 I NETWORK [initandlisten] waiting for connections on port 27017
2019-08-24T02:11:40.187-0300 I NETWORK [initandlisten] connection accepted from 127.0.0.1:53029 #1 (1 connection now open)
```

Configurando Models

src/models/task.js

```
const mongoose = require('mongoose');
const Schema = mongoose.Schema;

const TaskSchema = Schema({
   title: String,
   description: String,
   status: {
     type: Boolean,
     default: false
   }
});

module.exports = mongoose.model('tasks', TaskSchema);
```

Configurando a rota principal

src/routes/index.js

Hello World!

```
const express = require('express');
const router = express.Router();

router.get('/', (req, res) => {
   res.render('index');
});

module.exports = router;
```

```
<!DOCTYPE html>
<html>
 <head>
  <meta charset="utf-8">
  <title>CRUD Nodejs y MongoDb</title>
  <!-- BOOTSTRAP CDN -->
  <link rel="stylesheet"</pre>
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.0/css/bootstrap.min.cs
s" integrity="sha384-
9gVQ4dYFwwWSjIDZnLEWnxCjeSWFphJiwGPXr1jddIhOegiu1FwO5qRGvFXOdJZ4"
crossorigin="anonymous">
 </head>
 <body>
  <nav class="navbar navbar-dark bg-dark mb-4">
    <a class="navbar-brand" href="#">CRUD Nodejs Y Mongodb</a>
  </nav>
  <div class="container">
     <h1>Hello World</h1>
  </div>
</body>
</html>
CRUD Nodejs y MongoDb
    → C û
                            i localhost:3000
 CRUD Nodejs Y Mongodb
```

Hello World

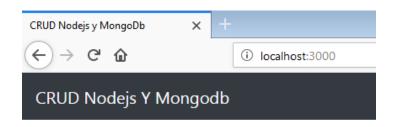
```
src/views/index.ejs
```

src/views/partials/_header.js

```
<!DOCTYPE html>
<html>
 <head>
  <meta charset="utf-8">
  <title>CRUD Nodejs y MongoDb</title>
  <!-- BOOTSTRAP CDN -->
  <link rel="stylesheet"</pre>
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.0/css/bootstrap.min.cs
s" integrity="sha384-
9gVQ4dYFwwWSjIDZnLEWnxCjeSWFphJiwGPXr1jddIhOegiu1FwO5qRGvFXOdJZ4"
crossorigin="anonymous">
 </head>
 <body>
  <nav class="navbar navbar-dark bg-dark mb-4">
    <a class="navbar-brand" href="#">CRUD Nodejs Y Mongodb</a>
  </nav>
```

src/views/partials/_footer.js

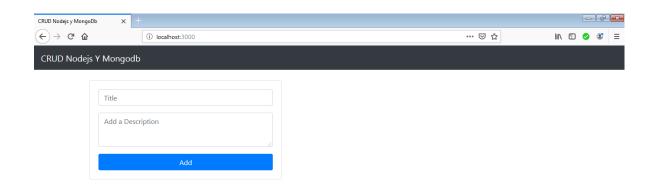
</body>



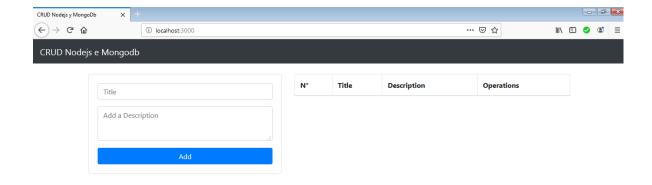
Hello World

```
<% include partials/_header %>
  <div class="container">
     <div class="row">
       <!--FORM-->
       <div class="col-md-5">
         <div class="card">
          <div class="card-body">
           <form action="/add" method="post">
             <div class="form-group">
              <input class="form-control" type="text" name="title"
placeholder="Title">
             </div>
             <div class="form-group">
              <textarea class="form-control" name="description" cols="80"
               placeholder="Add a Description"
               ></textarea>
             </div>
             <button class="btn btn-primary btn-block" type="submit">
              Add
             </button>
           </form>
          </div>
         </div>
       </div>
  </div>
```

<% include partials/_footer %>



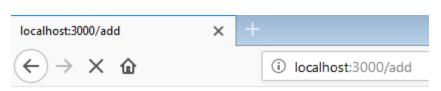
```
<% include partials/_header %>
  <div class="container">
    <div class="row">
      <!--FORM-->
      <div class="col-md-5">
       <div class="card">
        <div class="card-body">
          <form action="/add" method="post">
           <div class="form-group">
            <input class="form-control" type="text" name="title"
placeholder="Title">
           </div>
           <div class="form-group">
            <textarea class="form-control" name="description" cols="80"
             placeholder="Add a Description"
             ></textarea>
           </div>
           <button class="btn btn-primary btn-block" type="submit">
            Add
           </button>
          </form>
        </div>
       </div>
      </div>
      <!-- LIST -->
      <div class="col-md-7">
        <thead>
           N°
           Title
           Description
           Operations
           </thead>
        </div>
    </div>
  </div>
<% include partials/_footer %>
```



Rota para adicionar uma tarefa

src/routes/index.js

```
const express = require('express');
const router = express.Router();
const Task = require('../models/task');
router.get('/', (req, res) => {
 res.render('index');
});
router.post('/add', (req, res, next) => {
   console.log(req.body);
   res.send('Received');
 });
module.exports = router;
                                             Title
                                                      Description
                                                                       Operations
   almoçar
   tenho que almoçar
```



Received

```
server on port 3000
db connected
GET / 304 102.574 ms - -
[Object: null prototype] { title: 'almoçar', description: 'tenho que almoçar' }
POST /add 200 161.267 ms - 8
```

```
const express = require('express');
const router = express.Router();

const Task = require('../models/task');

router.get('/', (req, res) => {
    res.render('index');
});

router.post('/add', (req, res, next) => {
    console.log(new Task(req.body));
    res.send('Received');
    });

module.exports = router;
```

```
server on port 3000

db connected

GET / 304 32.615 ms - -

GET / 304 3.274 ms - -

{ status: false,

_id: 5d61052802490f0b8cac07cb,

   title: 'almoçar',

   description: 'tenho que almoçar' }

POST /add 200 82.506 ms - 8
```

Criando e listando tarefas

```
const express = require('express');
const router = express.Router();
const Task = require('../models/task');
router.get('/', async (req, res) => {
 const tasks = await Task.find();
 res.render('index', {
  tasks
 });
});
router.post('/add', async (req, res, next) => {
  const task = new Task(req.body);
  await task.save();
  res.redirect('/');
 });
module.exports = router;
   { status: false,
```

```
{ status: false,
    _id: 5d61095371ba7654b863f22d,
    title: 'correr',
    description: 'tenho que correr às tardes',
    _v: 0 },
    { status: false,
    _id: 5d610a3671ba7654b863f22e,
    title: 'jogar',
    description: 'tenho que jogar',
    _v: 0 } ]
GET / 200 46.506 ms - 1953
```

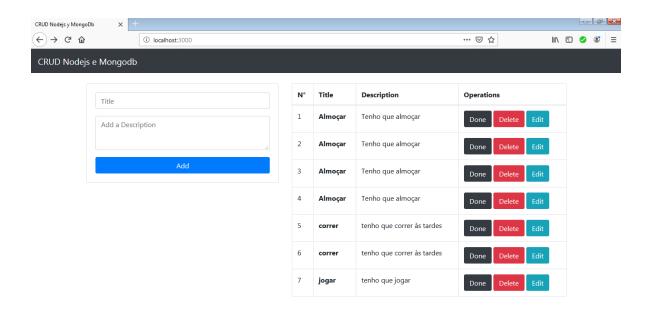
```
<% include partials/_header %>
  <%= tasks %>
  <div class="container">
    <div class="row">
      <!--FORM-->
      <div class="col-md-5">
       <div class="card">
        <div class="card-body">
         <form action="/add" method="post">
           <div class="form-group">
            <input class="form-control" type="text" name="title"
placeholder="Title">
           </div>
           <div class="form-group">
            <textarea class="form-control" name="description" cols="80"
             placeholder="Add a Description"
             ></textarea>
           </div>
           <button class="btn btn-primary btn-block" type="submit">
           Add
           </button>
         </form>
        </div>
       </div>
      </div>
      <!-- LIST -->
      <div class="col-md-7">
        <thead>
           N°
           Title
           Description
           Operations
           </thead>
        </div>
      </div>
</div>
<% include partials/_footer %>
```



```
<% include partials/ header %>
  <div class="container">
    <div class="row">
      <!--FORM-->
      <div class="col-md-5">
        <div class="card">
         <div class="card-body">
          <form action="/add" method="post">
           <div class="form-group">
            <input class="form-control" type="text" name="title"
placeholder="Title">
           </div>
           <div class="form-group">
            <textarea class="form-control" name="description" cols="80"
             placeholder="Add a Description"
             ></textarea>
           </div>
           <button class="btn btn-primary btn-block" type="submit">
            Add
           </button>
          </form>
         </div>
        </div>
      </div>
      <!-- LIST -->
      <div class="col-md-7">
         <thead>
           N°
           Title
           Description
           Operations
           </thead>
```

```
<% for(var i=0; i < tasks.length; i++) { %>
           < id>< % = i + 1% > 
             <strong><%= tasks[i].title %></strong>
             < %= tasks[i].description %> 
             <a
               class="<%= tasks[i].status ? 'btn btn-success' : 'btn btn-
dark'%>"
               href="/turn/<%= tasks[i]._id %>">Done</a>
             <a href="/delete/<%= tasks[i]._id %>"
               class="btn btn-danger">
               Delete
             </a>
             <a href="/edit/<%= tasks[i]._id %>" class="btn btn-info">
             </a>
             <% } %>
         </div>
      </div>
</div>
```

<% include partials/_footer %>



Deletando tarefas

```
const express = require('express');
const router = express.Router();
const Task = require('../models/task');
router.get('/', async (req, res) => {
 const tasks = await Task.find();
 console.log(tasks);
 res.render('index', {
  tasks
 });
});
router.post('/add', async (req, res, next) => {
  const task = new Task(req.body);
  await task.save();
  res.redirect('/');
 });
 router.get('/delete/:id', async (req, res, next) => {
  let { id } = req.params;
  await Task.remove({_id: id});
  res.redirect('/');
 });
module.exports = router;
```



Marcando tarefas como realizadas ou não realizadas

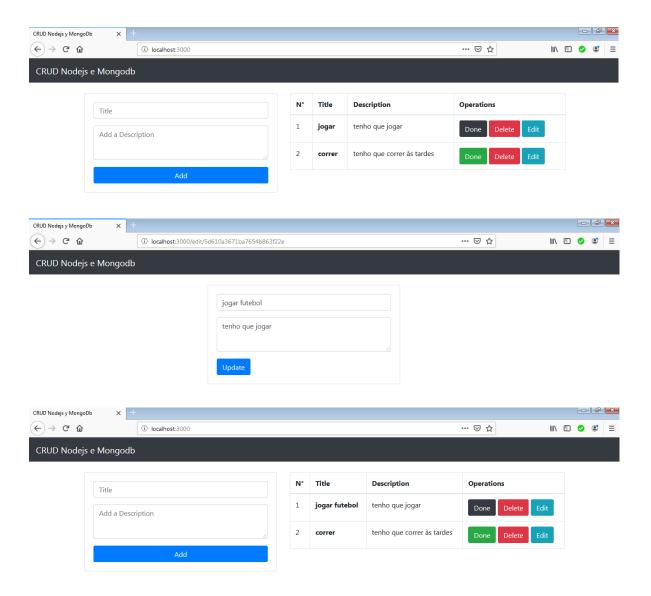
```
const express = require('express');
const router = express.Router();
const Task = require('../models/task');
router.get('/', async (req, res) => {
 const tasks = await Task.find();
 console.log(tasks);
 res.render('index', {
  tasks
 });
});
router.post('/add', async (reg, res, next) => {
  const task = new Task(req.body);
  await task.save();
  res.redirect('/');
 });
 router.get('/turn/:id', async (req, res, next) => {
  let { id } = req.params;
  const task = await Task.findById(id);
  task.status = !task.status;
  await task.save();
  res.redirect('/');
 });
 router.get('/delete/:id', async (req, res, next) => {
  let { id } = req.params;
  await Task.remove({ id: id});
  res.redirect('/');
 });
module.exports = router;
```



Editando uma tarefa

```
const express = require('express');
const router = express.Router();
const Task = require('../models/task');
router.get('/', async (req, res) => {
 const tasks = await Task.find();
 console.log(tasks);
 res.render('index', {
  tasks
 });
});
router.post('/add', async (req, res, next) => {
  const task = new Task(req.body);
  await task.save();
  res.redirect('/');
 });
 router.get('/turn/:id', async (req, res, next) => {
  let { id } = req.params;
  const task = await Task.findById(id);
  task.status = !task.status;
  await task.save();
  res.redirect('/');
 });
 router.get('/edit/:id', async (req, res, next) => {
  const task = await Task.findById(req.params.id);
  console.log(task)
  res.render('edit', { task });
 });
```

```
router.post('/edit/:id', async (req, res, next) => {
  const { id } = req.params;
  await Task.update({_id: id}, req.body);
  res.redirect('/');
 });
 router.get('/delete/:id', async (req, res, next) => {
  let { id } = req.params;
  await Task.remove({_id: id});
  res.redirect('/');
 });
module.exports = router;
src/views/edit.ejs
<% include partials/ header %>
<div class="container">
 <div class="row">
  <!--FORM-->
  <div class="col-md-5 offset-md-3">
    <div class="card">
     <div class="card-body">
      <form action="/edit/<%= task._id %>" method="post">
        <div class="form-group">
         <input class="form-control" type="text" name="title"
placeholder="Title" value="<%= task.title %>">
        </div>
        <div class="form-group">
         <textarea class="form-control" name="description" cols="80"
          placeholder="Add a Description"
          ><%= task.description %></textarea>
        </div>
        <button class="btn btn-primary" type="submit">
         Update
        </button>
      </form>
     </div>
    </div>
  </div>
 </div>
</div>
<% include partials/_footer%>
```



String de conexão

mongodb+srv://betopinheiro1005:<password>@cluster-nodejs-mongodb-ulvuw.mongodb.net/crud-mongo?retryWrites=true&w=majority