



Technicians HUB

Someday we are in need for a technician to repair something at our home or company. In the normal case we're asking a neighborhood or a friend if he/her knows a good technician to do the job for us.

Technicians HUB is a web platform designed to connect users with skilled technicians effortlessly. Whether you need a plumber, electrician, HVAC technician, or any other service provider, our platform enables you to find, review, and hire professionals with ease.

Github Repository:

<https://github.com/ehabsmh/technicianHUB-v1>

Api documentation:

<https://documenter.getpostman.com/view/25562679/2sA3XY7HwW#intro>

Technologies

Backend:

- NodeJS
- ExpressJS
- MongoDB using Mongoose ODM

Frontend:

- Reactjs
- Tailwindcss

Devops:

- Docker

Third Services

- Jsonwebtoken
- bcrypt
- Nodemailer
- Joi validations

CHALLENGES

Security:

- Protecting user data, including personal information.
- Implementing robust authentication and authorization mechanisms (e.g., JWT).

Trust and Safety:

- Building trust with users by ensuring technicians are vetted and reliable.
- Implementing features like reviews, ratings, and background checks for technicians.

Trello board

<https://trello.com/b/a3Wur5Xm/alx-graduation-project>

Mockups - login/register

[Login](#) | [Register](#)

First name

Last name

Email


Password

Phone number

Address

Birth date


mm / dd / yyyy



Picture

☐ User

☒ Technician




Service

Plumber

Salary (per hour)

Bio

Register

 Signup via Google

[Login](#) | [Register](#)

Email


example@hotmail.com

Password


123456

Login

[Forgot password?](#)

 Login via Google

Mockups - customers view

[Home](#) | [Assigned Technicians](#) | [About](#) | [Contact us](#) [Logout](#) 

Choose the technician according to your need

Default ▾

Default ▾

Plumbers

Fridges technicians

Air conditions technicians

Electricians

Cars Electricians

Rate

Michael Owen - 8\$/h

Rate

Michael Owen - 10\$/h

Rate

Michael Owen - 30\$/h

Rate


Michael Owen - 25\$/h


Rate

Michael Owen - 15\$/h

Rate

Michael Owen - 7\$/h

[Home](#) | [Assigned Technicians](#) | [About](#) | [Contact us](#) [Logout](#) 



Plumber
8\$/h

[Send request](#) [Send message](#)


Bio



Reviews

Finished jobs

lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Mockups - technician view

[Home](#) | [About](#) | [Contact us](#) [Logout](#) 


 **Plumber**
Michael Owen 8\$/h


Bio



Reviews

Requests

Edit

lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.







[Home](#) | [Messages](#) | [About](#) | [Contact us](#) [Logout](#) 


 **Plumber**
Michael Owen 8\$/h

Bio

Reviews

Requests



Data Modelling

users

```
{
  _id: ObjectId,
  firstName: String,
  lastName: String,
  email: String,
  password: String,
  phone: Number,
  address: String,
  birthDate: String,
  role: String, enum(user, technician),
  picture: String,
  emailConfirmed: Boolean,
  customerDetails: {
    assignedTechIds: [...Oids],
  }
  technicianDetails: {
    service: String,
    salary: Number,
    bio: String,
    rate: Number,
    reviewsCount: Number,
    isAvailable: Boolean
  }

  createdAt: datetime,
  updatedAt: datetime
}
```

reviews

```
{
  _id: ObjectId,
  reviewedBy: ObjectId,
  reviewedFor: ObjectId,
  content: String,
  rate: Number,
  created_at: datetime,
  updated_at: datetime,
}
```

jobRequest

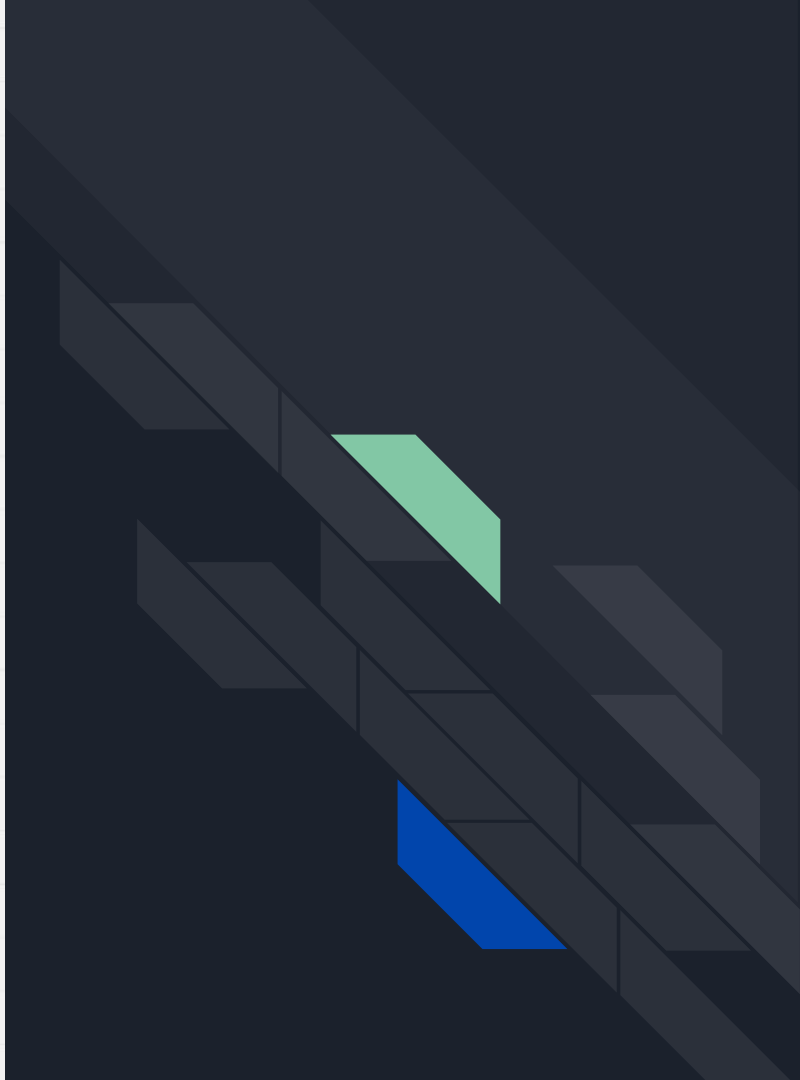
```
{
  _id: ObjectId,
  requestTo: ObjectId,
  requestBy: ObjectId,
  title: String,
  description: String,
  createdAt: datetime
}
```

chats

```
{
  _id: ObjectId,
  senderId: ObjectId,
  receiverId: ObjectId,
  message: String,
  created_at: datetime,
  updated_at: datetime,
}
```

jobState

```
{
  _id: ObjectId,
  techId: ObjectId,
  userId: ObjectId,
  requestNo: ObjectId,
  status: String, enum("pending", "pending confirmation",
    "completed"),
  createdAt: datetime,
  updatedAt: datetime
}
```



What I've learned?

Backend

- Mongoose ODM
- signing and verifying a json web token.
- Sending emails and handling email confirmations
- What is Middleware and how to use it.

Frontend

- State Management using Context API.
- Component life cycle.
- Handling routes with Protected Routes.

Next Steps

- Embedding Google maps to track technicians locations, and get nearby technicians



Q&A

Thank you