

# Manual Instalación

- Ciclo formativo: 2º ASIR
- Módulo: GBDLI
- Fecha de entrega de la práctica: 14/02/2022
- Nombre y apellidos: Daniel Muñoz Núñez

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# 1) Primeros Pasos

En esta práctica vamos a crear una API rest que será una parte fundamental de nuestro proyecto final ya que se encargará de gestionar las conexiones a nuestra base de datos en la nube.

En este punto mostraremos los primeros pasos necesarios para la creación del proyecto.

```
// iniciar proyecto node.js para crear el package.json  
npm init -y
```

```
// instalar typescript local si no se instaló global  
npm i typescript --save-dev //Local  
npm i typescript -g //Global
```

```
// Iniciar proyecto typescript para crear el tsconfig.json  
tsc --init //Si global. Se crea el tsconfig.json  
npm tsc --init //Si local. Se crea el tsconfig.json
```

```
// Para crear el repositorio local  
git init
```

```
// Cambiamos la configuración del tsconfig.json  
"target": "es6",  
"outDir": "./build",
```

//Cambiamos el package.json de la siguiente forma:

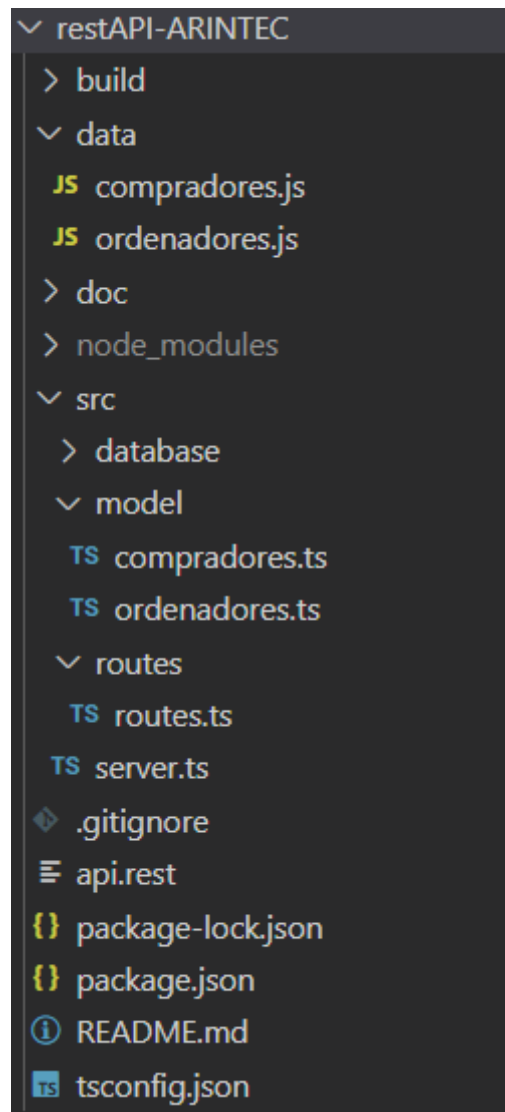
```
"scripts": {  
  "ts": "tsc -w",  
  "dev": "nodemon ./build/server.js",  
  "start": "node ./build/server.js"  
}
```

```
// Instalación de express, mongoose y morgan  
npm i express mongoose morgan
```

```
// Instalamos los tipos de datos y módulos de desarrollo  
npm install @types/node @types/mongoose @types/express @types/morgan nodemon  
typescript -D
```

```
// Configuramos el .gitignore con:  
node_modules  
doc
```

Una vez completado todos estos pasos la estructura de nuestra API rest quedaría así:

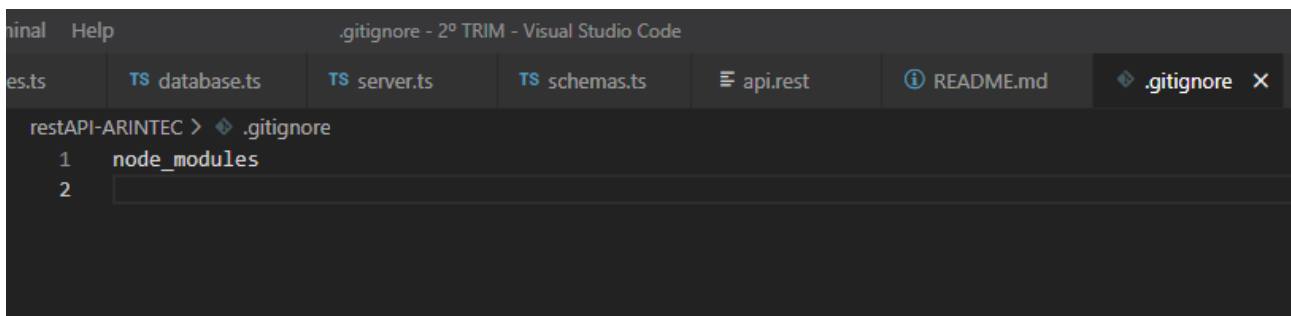


## 2) Subir a Github, a heroku y conexión mongo

Para poder ejecutar nuestra API en heroku primero tendremos que subirla a github y posteriormente enlazar heroku con nuestro repositorio, a continuación se detallan los pasos:

En primer lugar debemos crear un nuevo repositorio público vacío y sin readme en nuestra cuenta de github, de nombre **restAPI-ARINTEC**

En segundo lugar, ya en nuestro proyecto en local, debemos incluir en el gitignore la carpeta **/node\_modules** ya que heroku se encargará de compilar la aplicación y de crear dicha carpeta, sin embargo la carpeta **/build** se debe subir ya que si no la aplicación no funcionaría.



```
restAPI-ARINTEC > .gitignore
1  node_modules
2
```

Posteriormente debemos ejecutar en orden los siguientes comandos para subir nuestra API a Github, los comandos son los mismos que en prácticas anteriores:

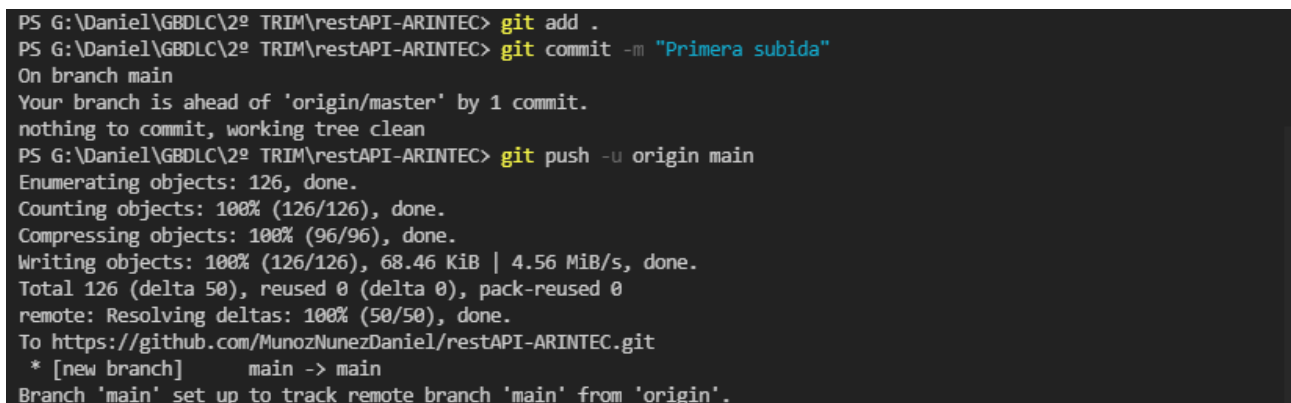
**git init**

**git add .**

**git commit -m "primera subida"**

**git remote set-url origin https://github.com/MunozNunezDaniel/restAPI-ARINTEC.git**

**git push -u origin main**



```
PS G:\Daniel\GBDLC\2º TRIM\restAPI-ARINTEC> git add .
PS G:\Daniel\GBDLC\2º TRIM\restAPI-ARINTEC> git commit -m "Primera subida"
On branch main
Your branch is ahead of 'origin/master' by 1 commit.
nothing to commit, working tree clean
PS G:\Daniel\GBDLC\2º TRIM\restAPI-ARINTEC> git push -u origin main
Enumerating objects: 126, done.
Counting objects: 100% (126/126), done.
Compressing objects: 100% (96/96), done.
Writing objects: 100% (126/126), 68.46 KiB | 4.56 MiB/s, done.
Total 126 (delta 50), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (50/50), done.
To https://github.com/MunozNunezDaniel/restAPI-ARINTEC.git
 * [new branch]      main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.
```

De esta forma ya lo tendremos subido a github.

The screenshot shows a web browser with multiple tabs open. The active tab is the GitHub repository page for 'MunozNunezDaniel / restAPI-ARINTEC'. The page is in dark mode. At the top, there's a navigation bar with the GitHub logo, a search bar, and links for Pull requests, Issues, Marketplace, and Explore. Below this, the repository name 'MunozNunezDaniel / restAPI-ARINTEC' is displayed with a 'Public' badge. To the right of the name are buttons for 'Unwatch' (1), 'Fork' (0), and 'Star' (0). Below the repository name is a horizontal menu with links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, and Insights. The 'Code' link is currently selected. The main content area shows a file tree for the 'main' branch. It lists several files and folders: 'build', 'doc', 'src', '.gitignore', 'README.md', 'api.rest', 'package-lock.json', 'package.json', and 'tsconfig.json'. Each item has a timestamp indicating when it was last updated. To the right of the file tree, there's an 'About' section with a description (currently empty), a 'Readme' link, and statistics for stars (0), watchers (1), and forks (0). Below the 'About' section are sections for 'Releases' (no releases published) and 'Packages' (no packages published). At the bottom right, there's a 'Languages' section showing a bar chart for the code's language composition: JavaScript at 57.3% and TypeScript at 42.7%. The main content area also displays the 'README.md' file content, which includes the title 'Practica05 API Rest: Tienda de informática', the author's name 'Daniel Muñoz Nuñez', and a paragraph describing the project: 'En esta práctica crearemos una API rest que será una parte fundamental de nuestro proyecto final ya que se encargará de gestionar las conexiones a nuestra base de datos en la nube, el proyecto final se basará en una tienda de informatica con dos colecciones: ordenadores y compradores'.

873: Rest Api x MunozNunez x 2122\_pasos x arintec-angular x localhost3000 x Data | Cloud: I x +

github.com/MunozNunezDaniel/restAPI-ARINTEC

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La extensión actualizada necesita permisos adicionales. Ve al administrador de extensiones para aceptar la actualización. Ir a extensiones

Search or jump to... Pull requests Issues Marketplace Explore

MunozNunezDaniel / restAPI-ARINTEC Public

Unwatch 1 Fork 0 Star 0

Code Issues Pull requests Actions Projects Wiki Security Insights

main 1 branch 0 tags Go to file Add file Code

MunozNunezDaniel Primera subida b5c017b 19 minutes ago 17 commits

build	Primera subida	22 minutes ago
doc	Primera subida	19 minutes ago
src	Primera subida	22 minutes ago
.gitignore	Primera subida	19 minutes ago
README.md	Primera subida	20 minutes ago
api.rest	Primera subida	22 minutes ago
package-lock.json	Primera subida	22 minutes ago
package.json	Primera subida	22 minutes ago
tsconfig.json	restAPI-1.0	8 months ago

README.md

## Practica05 API Rest: Tienda de informática

### Daniel Muñoz Nuñez

En esta práctica crearemos una API rest que será una parte fundamental de nuestro proyecto final ya que se encargará de gestionar las conexiones a nuestra base de datos en la nube, el proyecto final se basará en una tienda de informatica con dos colecciones: ordenadores y compradores

About

No description, website, or topics provided.

Readme

0 stars

1 watching

0 forks

Releases

No releases published

Create a new release

Packages

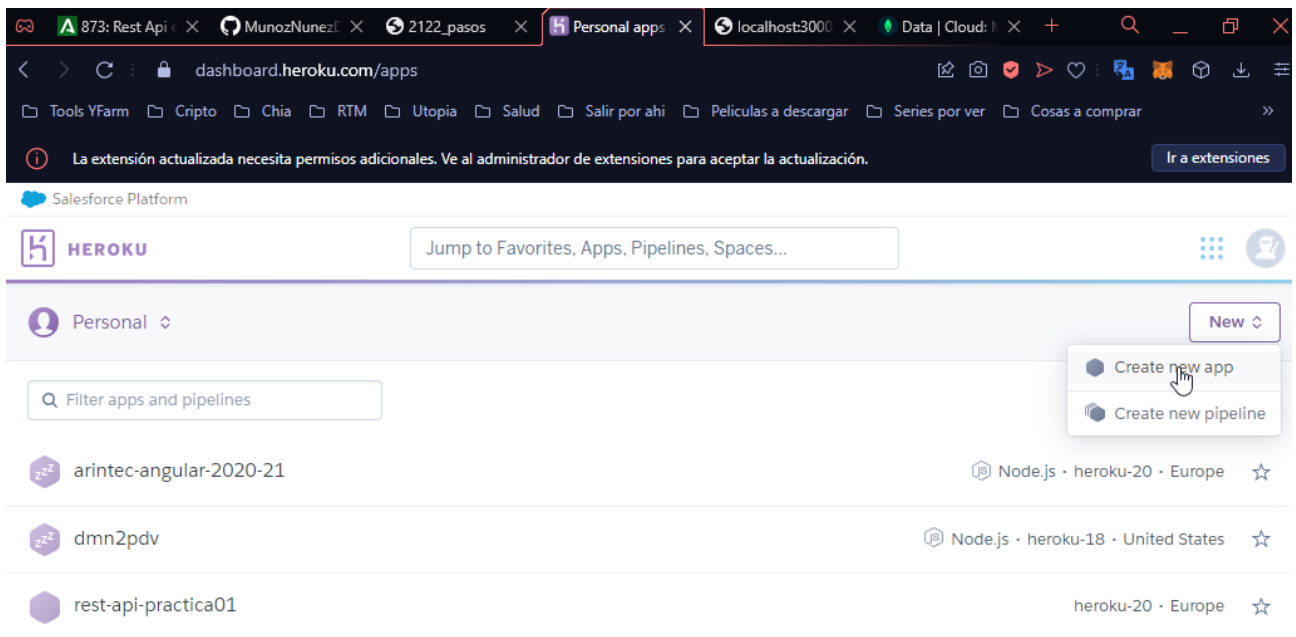
No packages published

Publish your first package

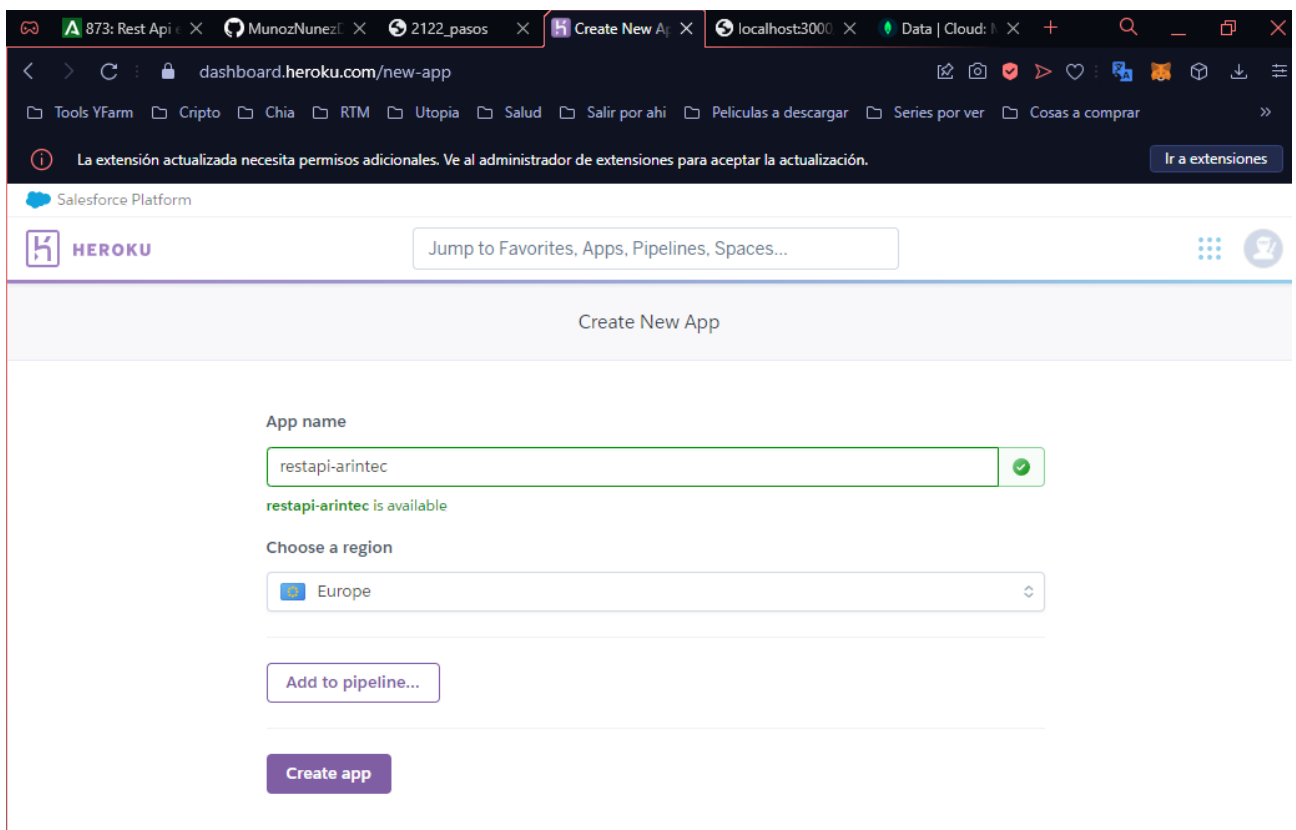
Languages

JavaScript 57.3% TypeScript 42.7%

Ahora tendremos que ingresar en nuestra cuenta de heroku y crear una nueva aplicación.



Elegimos la región de europa



Una vez creada la aplicación la enlazamos con nuestro repositorio de github

The screenshot shows the Heroku dashboard for the application 'restapi-arintec'. The browser address bar shows 'dashboard.heroku.com/apps/restapi-arintec/deploy/github'. A notification at the top states: 'La extensión actualizada necesita permisos adicionales. Ve al administrador de extensiones para aceptar la actualización.' with a link 'Ir a extensiones'.

The dashboard header includes the Heroku logo, a search bar 'Jump to Favorites, Apps, Pipelines, Spaces...', and user information 'Personal' and 'restapi-arintec'. Navigation tabs include Overview, Resources, Deploy (selected), Metrics, Activity, Access, and Settings.

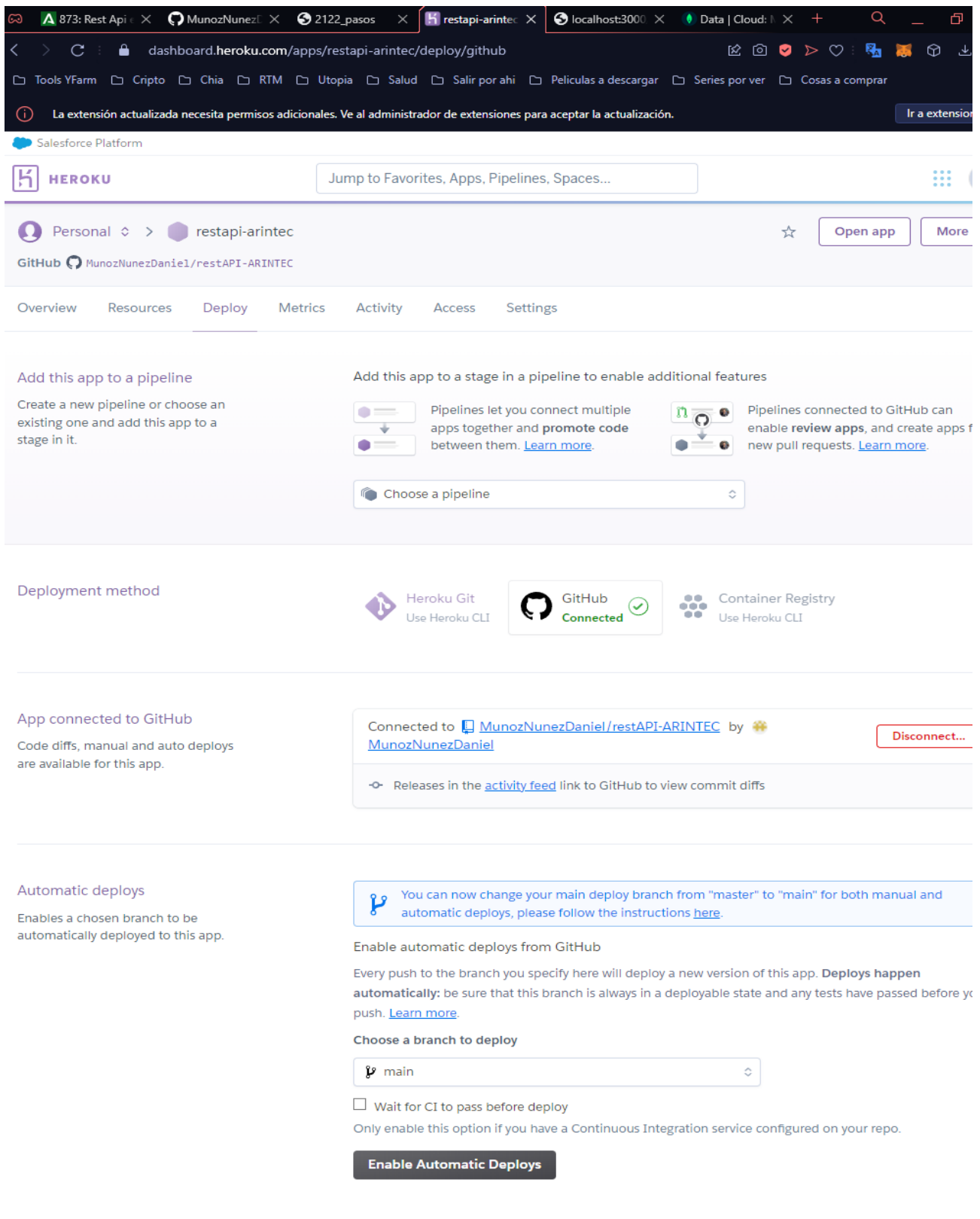
The main content area is divided into two sections:

- Add this app to a pipeline:** This section explains that pipelines connect multiple apps and promote code between them. It includes a 'Choose a pipeline' dropdown menu.
- Deployment method:** This section offers three options: 'Heroku Git' (Use Heroku CLI), 'GitHub' (Connect to GitHub), and 'Container Registry' (Use Heroku CLI).

The 'Connect to GitHub' section is expanded, showing instructions to connect the app to GitHub for code diffs and deploys. It includes a search bar with 'MunozNunezDaniel' and 'restAPI-ARINTEC', a 'Search' button, and a list of repositories with a 'Connect' button for 'MunozNunezDaniel/restAPI-ARINTEC'.



Posteriormente una vez enlazada activamos el **automatic deploys** para que no tengamos que volver a desplegar la aplicación desde heroku CLI



La extensión actualizada necesita permisos adicionales. Ve al administrador de extensiones para aceptar la actualización.

Salesforce Platform

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

Personal > restapi-arintec

GitHub MunozNunezDaniel/restAPI-ARINTEC

Overview Resources **Deploy** Metrics Activity Access Settings

**Add this app to a pipeline**

Create a new pipeline or choose an existing one and add this app to a stage in it.

**Add this app to a stage in a pipeline to enable additional features**

Pipelines let you connect multiple apps together and **promote code** between them. [Learn more.](#)

Pipelines connected to GitHub can enable **review apps**, and create apps for new pull requests. [Learn more.](#)

Choose a pipeline

**Deployment method**

Heroku Git Use Heroku CLI

GitHub **Connected**

Container Registry Use Heroku CLI

**App connected to GitHub**

Code diffs, manual and auto deploys are available for this app.

Connected to [MunozNunezDaniel/restAPI-ARINTEC](#) by [MunozNunezDaniel](#) [Disconnect...](#)

Releases in the [activity feed](#) link to GitHub to view commit diffs

**Automatic deploys**

Enables a chosen branch to be automatically deployed to this app.

You can now change your main deploy branch from "master" to "main" for both manual and automatic deploys, please follow the instructions [here](#).

**Enable automatic deploys from GitHub**

Every push to the branch you specify here will deploy a new version of this app. **Deploys happen automatically**: be sure that this branch is always in a deployable state and any tests have passed before your push. [Learn more.](#)

**Choose a branch to deploy**

main

☐ Wait for CI to pass before deploy

Only enable this option if you have a Continuous Integration service configured on your repo.

**Enable Automatic Deploys**

Ahora vamos a crear un usuario con privilegios de administrador en nuestro mongoDB para acceder con el desde nuestra API a las colecciones de la Base de datos.

The screenshot shows the 'Edit User' modal in the MongoDB Atlas web interface. The user being edited is 'usuario1@admin'. The 'Authentication Method' section has three options: 'Password' (selected with a green border), 'Certificate', and 'AWS IAM (MongoDB 4.4 and up)'. Below this, a text box shows the username 'usuario1' and an 'Edit Password' button. The 'Database User Privileges' section includes a 'Built-in Role' dropdown set to 'Atlas admin' (labeled '1 SELECTED'), and expandable sections for 'Custom Roles' and 'Specific Privileges'. At the bottom, there is a toggle for 'Restrict Access to Specific Clusters/Data Lakes' which is currently 'OFF'. 'Cancel' and 'Update User' buttons are at the bottom right.

cloud.mongodb.com/v2/6059a47243e0fe412984b66e#security/database/users

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La extensión actualizada necesita permisos adicionales. Ve al administrador de extensiones para aceptar la actualización.

### Edit User: usuario1@admin

Update a database user to grant an application or user, access to databases and collections in your clusters in this Atlas project. Granular access control can be configured with default privileges or custom roles. You can grant access to an Atlas project or organization using the corresponding [Access Manager](#).

#### Authentication Method

Password

Certificate

AWS IAM  
(MongoDB 4.4 and up)

MongoDB uses [SCRAM](#) as its default authentication method.

#### Password Authentication

usuario1

Edit Password

#### Database User Privileges

For advanced role based access control, you can apply your own custom roles or add specific privileges to this user. You can combine these role types with a built-in role. A user will gain access to all actions within the roles assigned to them, not just the actions those roles share in common. **You must choose at least one role or privilege.** [Learn more about roles.](#)

##### Built-in Role

Select one [built-in role](#) for this user.

Atlas admin

1 SELECTED

##### Custom Roles

Select your [pre-defined custom role\(s\)](#). Create a custom role in the [Custom Roles](#) tab.

##### Specific Privileges

Select multiple privileges and what database and collection they are associated with. Leaving collection blank will grant this role for all collections in the database.

#### Restrict Access to Specific Clusters/Data Lakes

Enable to specify the resources this user can access. By default, all resources in this project are accessible.

OFF

Cancel Update User

cloud.mongodb.com/v2/6059a47243e0fe412984b66e#clusters/connect?clusterId=Cluster0

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### Connect to Cluster0

✓ Setup connection security > ✓ Choose a connection method > Connect

1 Select your driver and version

DRIVER: Node.js | VERSION: 4.0 or later

2 Add your connection string into your application code

☐ Include full driver code example

```
mongodb+srv://<username>:<password>@cluster0.49asp.mongodb.net/myFirstDatabase?
retryWrites=true&w=majority
```

Replace **<password>** with the password for the **<username>** user. Replace **myFirstDatabase** with the name of the database that connections will use by default. Ensure any option params are [URL encoded](#).

Having trouble connecting? [View our troubleshooting documentation](#)

Go Back Close

```
file Edit Selection View Go Run Terminal Help
databases.ts - 2º TRIM - Visual Studio Code

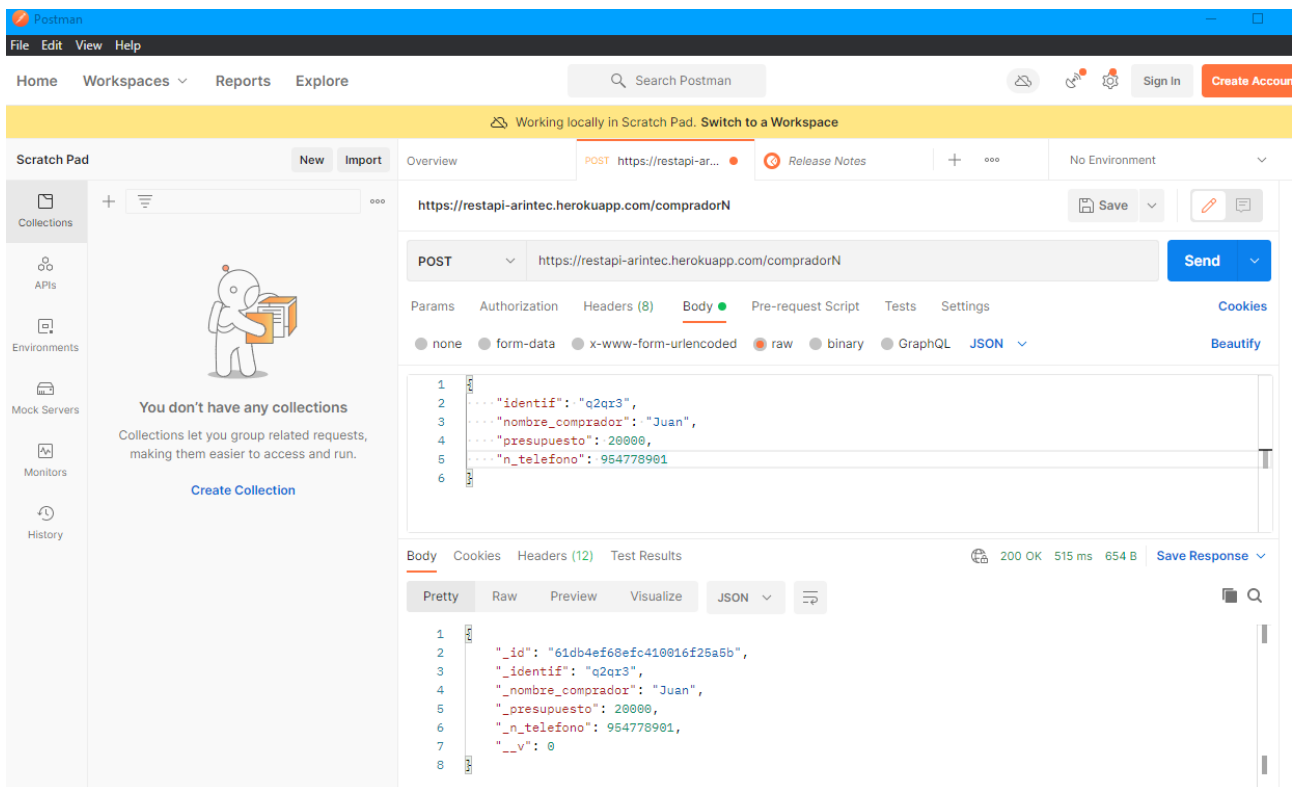
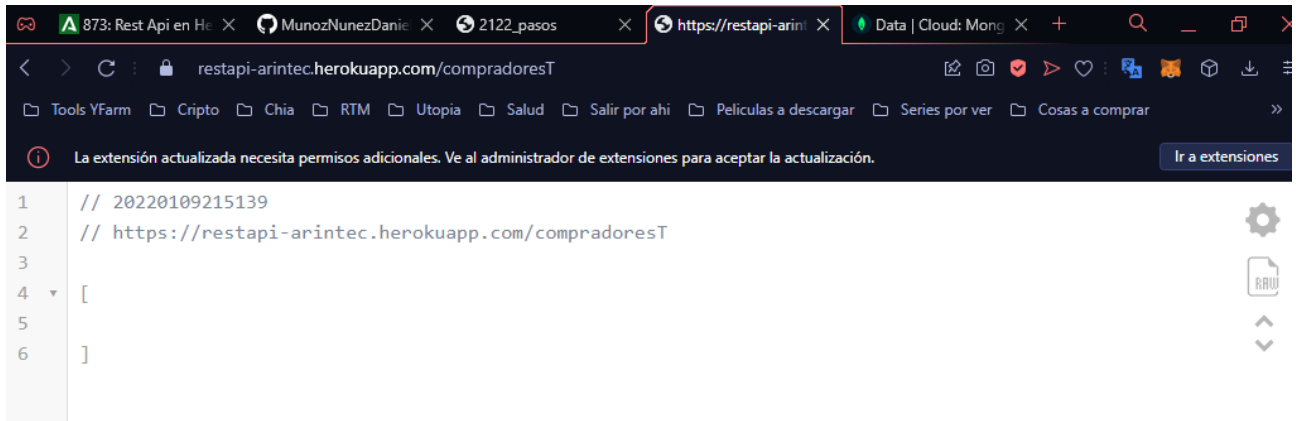
EXPLORER
2º TRIM
  > 2122_CREAR_autos
  > 2122_restapi_autos
  > Imagenes
  > mi_primera_restapi
  > pruebas
  > restAPI-ARINTEC
    > build
    > database
    > model
    > routes
    JS server.js
  > doc
  > node_modules
  > src
    > database
    TS databases.ts
  > model
  TS schemasts
  > routes
  TS routes.ts
  TS server.ts
  .gitignore
  api.rest
  package-lock.json
  package.json
  README.md
  tsconfig.json
  2122_pasos.pdf
  Apuntes 2Trim.txt
  Para empezar.txt
  Proyecto2TRIM.txt

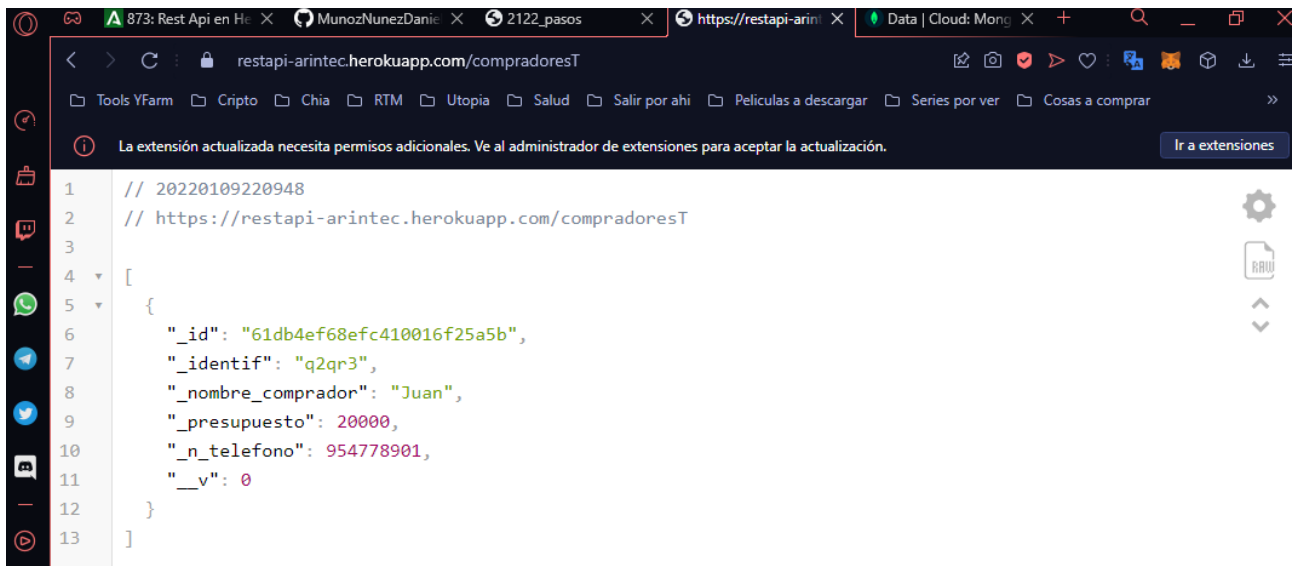
TS databases.ts X TS server.ts TS schemasts api.rest .gitignore README.md Para empezar.txt

restAPI-ARINTEC > src > database > TS databases.ts > DataBase > conectarBD

1 import mongoose from 'mongoose';
2
3 class DataBase {
4
5     private _cadenaConexion: string = 'mongodb+srv://usuario1:usuario1@cluster0.49asp.mongodb.net/proyecto_recu2021?retryWrites=true&w=majority'
6     private _cadenaConexion2: string = 'mongodb+srv://usuarioA:usuarioA@cluster0.49asp.mongodb.net/auto?retryWrites=true&w=majority'
7     constructor(){
8
9     }
10    set cadenaConexion(_cadenaConexion: string){
11        this._cadenaConexion = _cadenaConexion
12    }
13
14    conectarBD = async () => {
15        const promise = new Promise<string> ( async (resolve, reject) => {
16            await mongoose.connect(this._cadenaConexion, {
17                useNewUrlParser: true,
18                useUnifiedTopology: true,
19                useCreateIndex: true, // Para que cree el índice único asociado al campo unique
20                useFindAndModify: false // para usar findOneAndDelete y findAndModify
21            })
22            .then( () => resolve('Conectado a ${this._cadenaConexion}') )
23            .catch( (error) => reject('Error conectando a ${this._cadenaConexion}: ${error}') )
24        })
25        return promise
26    }
27
28    desconectarBD = async () => {
29
30    }
31
32    const promise = new Promise<string> ( async (resolve, reject) => {
33        await mongoose.disconnect()
34        .then( () => resolve('Desconectado de ${this._cadenaConexion}') )
35        .catch( (error) => reject('Error desconectando de ${this._cadenaConexion}: ${error}') )
36    })
37    return promise
38
39 }
40 export const db = new DataBase()
```

### 3) Prueba en producción.





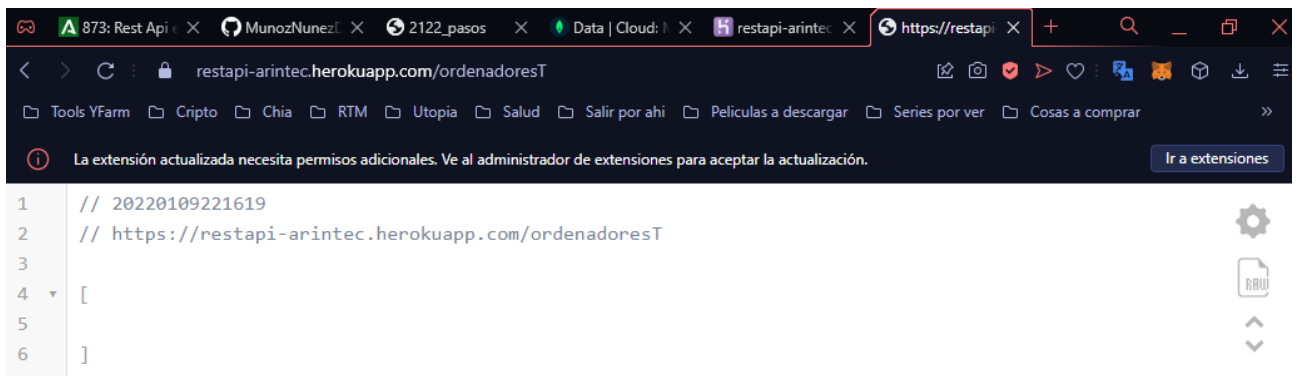
873: Rest Api en Heroku X MunozNunezDaniel X 2122\_pasos X https://restapi-arintec.herokuapp.com/compradoresT Data | Cloud: MongoDB X

restapi-arintec.herokuapp.com/compradoresT

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La extensión actualizada necesita permisos adicionales. Ve al administrador de extensiones para aceptar la actualización. Ir a extensiones

```
1 // 20220109220948
2 // https://restapi-arintec.herokuapp.com/compradoresT
3
4 [
5   {
6     "_id": "61db4ef68efc410016f25a5b",
7     "_identif": "q2qr3",
8     "_nombre_comprador": "Juan",
9     "_presupuesto": 20000,
10    "_n_telefono": 954778901,
11    "__v": 0
12  }
13 ]
```



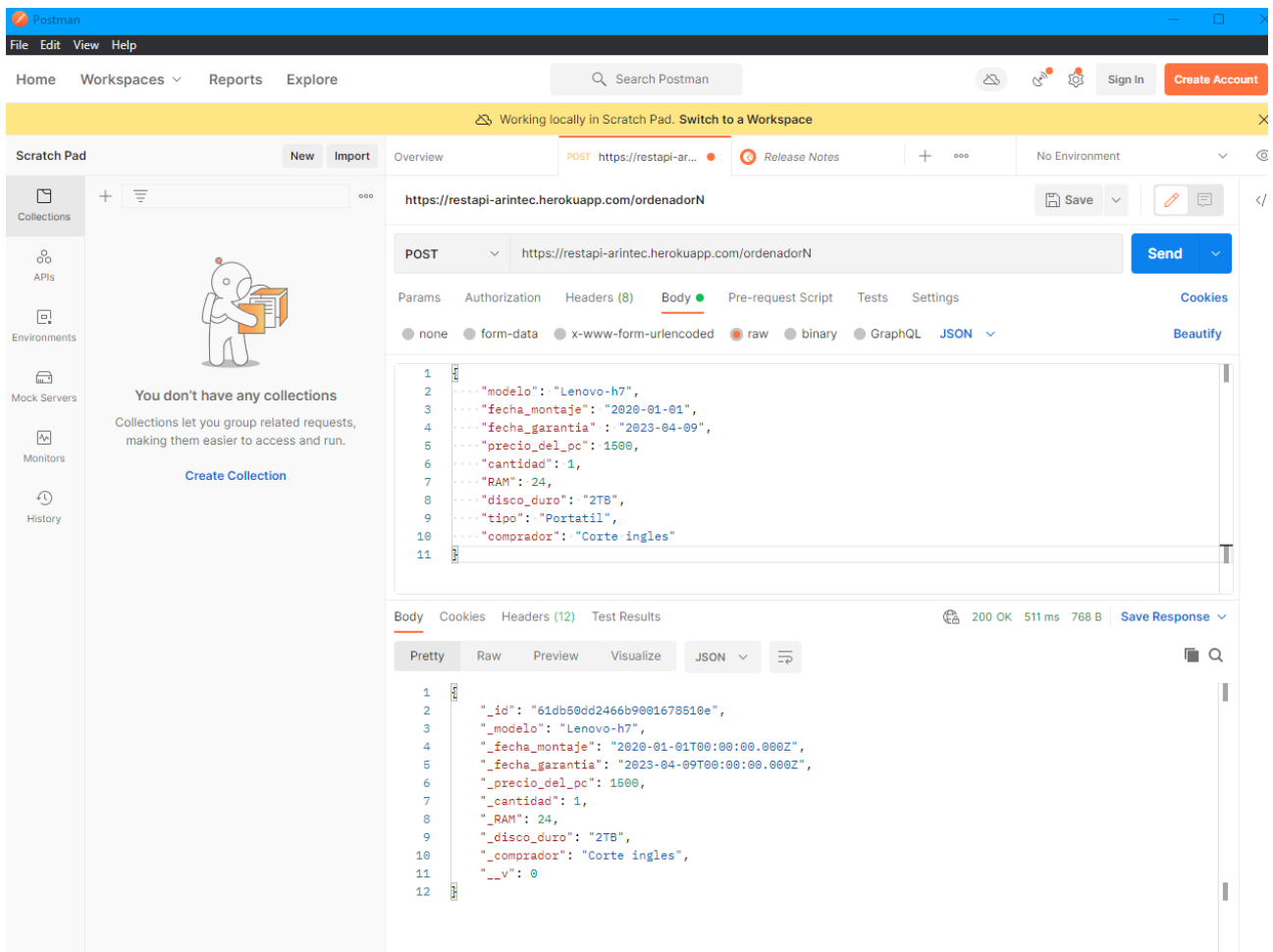
873: Rest Api en Heroku X MunozNunezDaniel X 2122\_pasos X Data | Cloud: MongoDB X restapi-arintec X https://restapi-arintec.herokuapp.com/ordenadoresT

restapi-arintec.herokuapp.com/ordenadoresT

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La extensión actualizada necesita permisos adicionales. Ve al administrador de extensiones para aceptar la actualización. Ir a extensiones

```
1 // 20220109221619
2 // https://restapi-arintec.herokuapp.com/ordenadoresT
3
4 [
5
6 ]
```



```
1 // 20220109221743
2 // https://restapi-arintec.herokuapp.com/ordenadoresT
3
4 [
5   {
6     "_id": "61db50dd2466b9001678510e",
7     "_modelo": "Lenovo-h7",
8     "_fecha_montaje": "2020-01-01T00:00:00.000Z",
9     "_fecha_garantia": "2023-04-09T00:00:00.000Z",
10    "_precio_del_pc": 1500,
11    "_cantidad": 1,
12    "_RAM": 24,
13    "_disco_duro": "2TB",
14    "_comprador": "Corte ingles",
15    "__v": 0
16  }
17 ]
```



```
1 // 20220109222234
2 // https://restapi-arintec.herokuapp.com/ordenadoresT
3
4 [
5   {
6     "_id": "61db50dd2466b9001678510e",
7     "_modelo": "Lenovo-h7",
8     "_fecha_montaje": "2020-01-01T00:00:00.000Z",
9     "_fecha_garantia": "2023-04-09T00:00:00.000Z",
10    "_precio_del_pc": 1500,
11    "_cantidad": 1,
12    "_RAM": 24,
13    "_disco_duro": "2TB",
14    "_comprador": "Corte ingles",
15    "__v": 0
16  },
17  {
18    "_id": "61db52122466b90016785111",
19    "_modelo": "ASUS-h7",
20    "_fecha_montaje": "2022-01-01T00:00:00.000Z",
21    "_fecha_garantia": "2024-04-09T00:00:00.000Z",
22    "_precio_del_pc": 2000,
23    "_cantidad": 2,
24    "_RAM": 36,
25    "_disco_duro": "4TB",
26    "_comprador": "Daniel",
27    "__v": 0
28  }
29 ]
```

Postman

File Edit View Help

Home Workspaces Reports Explore

Search Postman

Sign In Create Account

Working locally in Scratch Pad. Switch to a Workspace

Scratch Pad New Import Overview

DEL https://restapi-ari... Release Notes

No Environment

collections

APIs

Environments

Mock Servers

Monitors

History

You don't have any collections

Collections let you group related requests, making them easier to access and run.

Create Collection

https://restapi-arintec.herokuapp.com/ordenadorB/Lenovo-h7

Save

DELETE https://restapi-arintec.herokuapp.com/ordenadorB/Lenovo-h7 Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	Bulk Edit
Key	Value	Description	

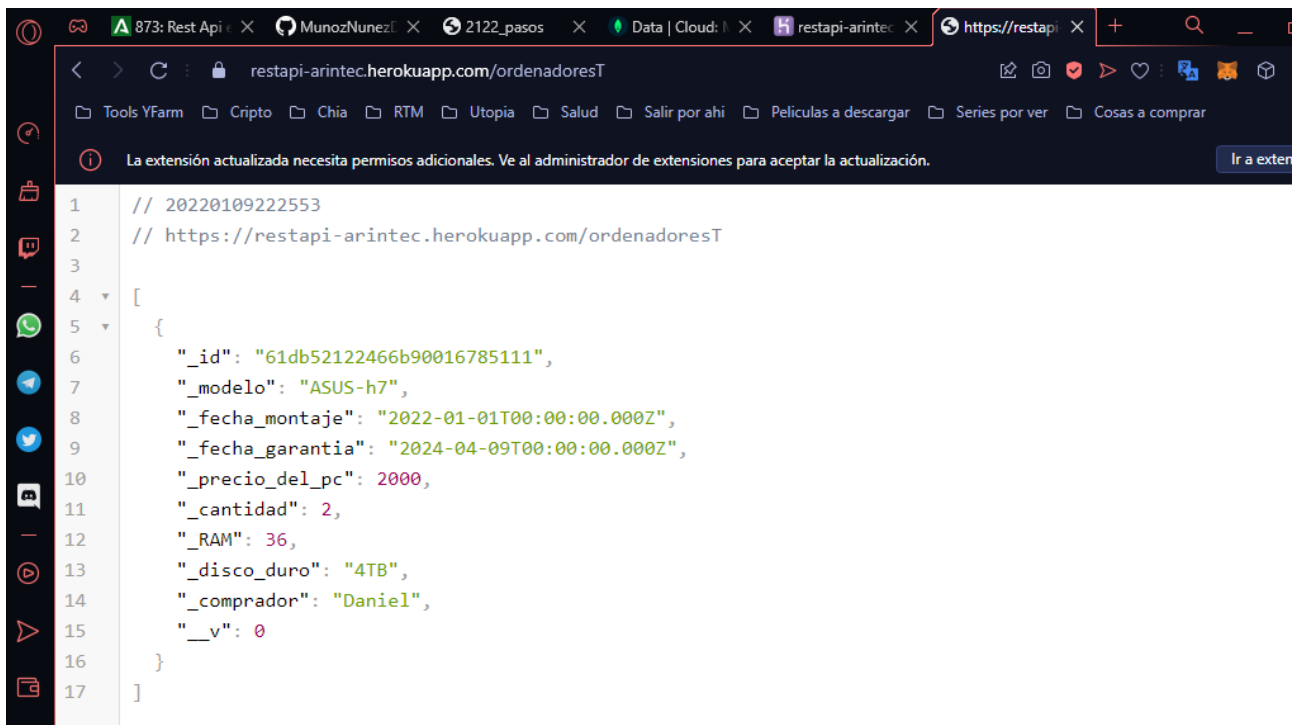
Body Cookies Headers (12) Test Results

200 OK 506 ms 768 B Save Response

Pretty Raw Preview Visualize JSON

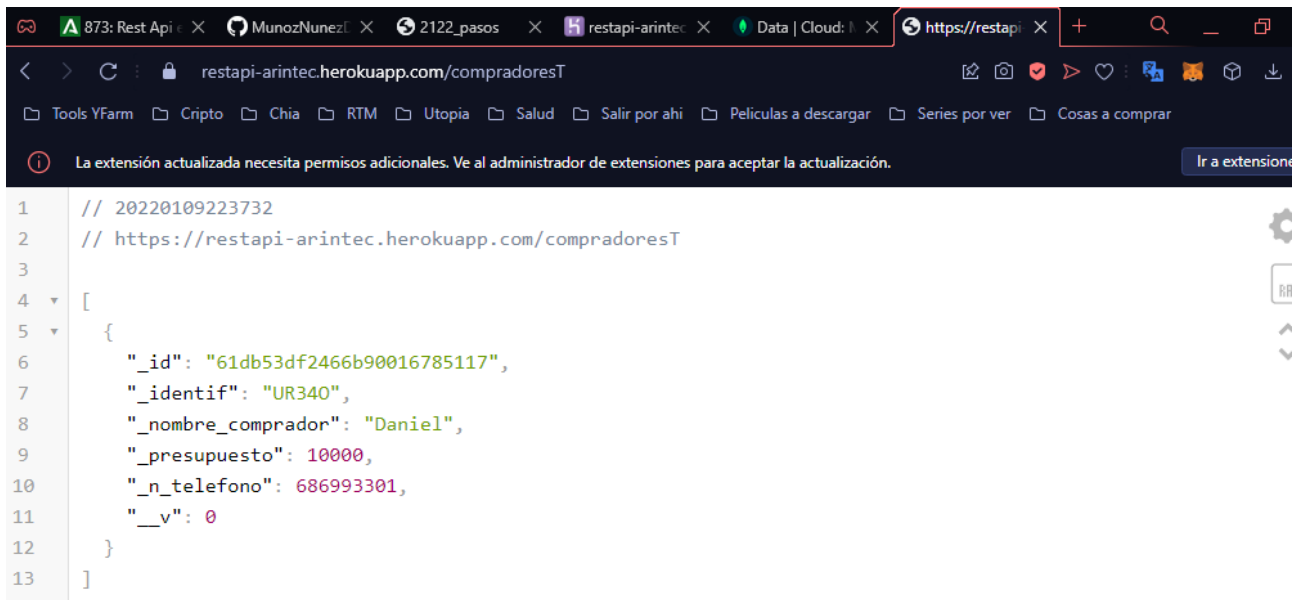
```

1  {
2    "_id": "61db50dd2466b9001678510e",
3    "_modelo": "Lenovo-h7",
4    "_fecha_montaje": "2020-01-01T00:00:00.000Z",
5    "_fecha_garantia": "2023-04-09T00:00:00.000Z",
6    "_precio_del_pc": 1500,
7    "_cantidad": 1,
8    "_RAM": 24,
9    "_disco_duro": "2TB",
10   "_comprador": "Corte ingles",
11   "__v": 0
12 }
```



La extensión actualizada necesita permisos adicionales. Ve al administrador de extensiones para aceptar la actualización. [Ir a extensiones](#)

```
1 // 20220109222553
2 // https://restapi-arintec.herokuapp.com/ordenadoresT
3
4 [
5   {
6     "_id": "61db52122466b90016785111",
7     "_modelo": "ASUS-h7",
8     "_fecha_montaje": "2022-01-01T00:00:00.000Z",
9     "_fecha_garantia": "2024-04-09T00:00:00.000Z",
10    "_precio_del_pc": 2000,
11    "_cantidad": 2,
12    "_RAM": 36,
13    "_disco_duro": "4TB",
14    "_comprador": "Daniel",
15    "__v": 0
16  }
17 ]
```



La extensión actualizada necesita permisos adicionales. Ve al administrador de extensiones para aceptar la actualización. [Ir a extensiones](#)

```
1 // 20220109223732
2 // https://restapi-arintec.herokuapp.com/compradoresT
3
4 [
5   {
6     "_id": "61db53df2466b90016785117",
7     "_identif": "UR340",
8     "_nombre_comprador": "Daniel",
9     "_presupuesto": 10000,
10    "_n_telefono": 686993301,
11    "__v": 0
12  }
13 ]
```

```
1 // 20220109225456
2 // https://restapi-arintec.herokuapp.com/ordenadoresT
3
4 [
5   {
6     "_id": "61db59a63723240016d463f9",
7     "_modelo": "ASUS-h7",
8     "_fecha_montaje": "2022-01-01T00:00:00.000Z",
9     "_fecha_garantia": "2024-04-09T00:00:00.000Z",
10    "_precio_del_pc": 2000,
11    "_cantidad": 2,
12    "_RAM": 36,
13    "_disco_duro": "4TB",
14    "_comprador": "Daniel",
15    "__v": 0
16  }
17 ]
```

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Working locally in Scratch Pad. Switch to a Workspace

Scratch Pad New Import

Overview POST https://restapi-ar... Release Notes + ... No Environment

https://restapi-arintec.herokuapp.com/ordenadormod/ASUS-h7 Save

POST https://restapi-arintec.herokuapp.com/ordenadormod/ASUS-h7 Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies Beautify

none form-data x-www-form-urlencoded raw binary GraphQL JSON

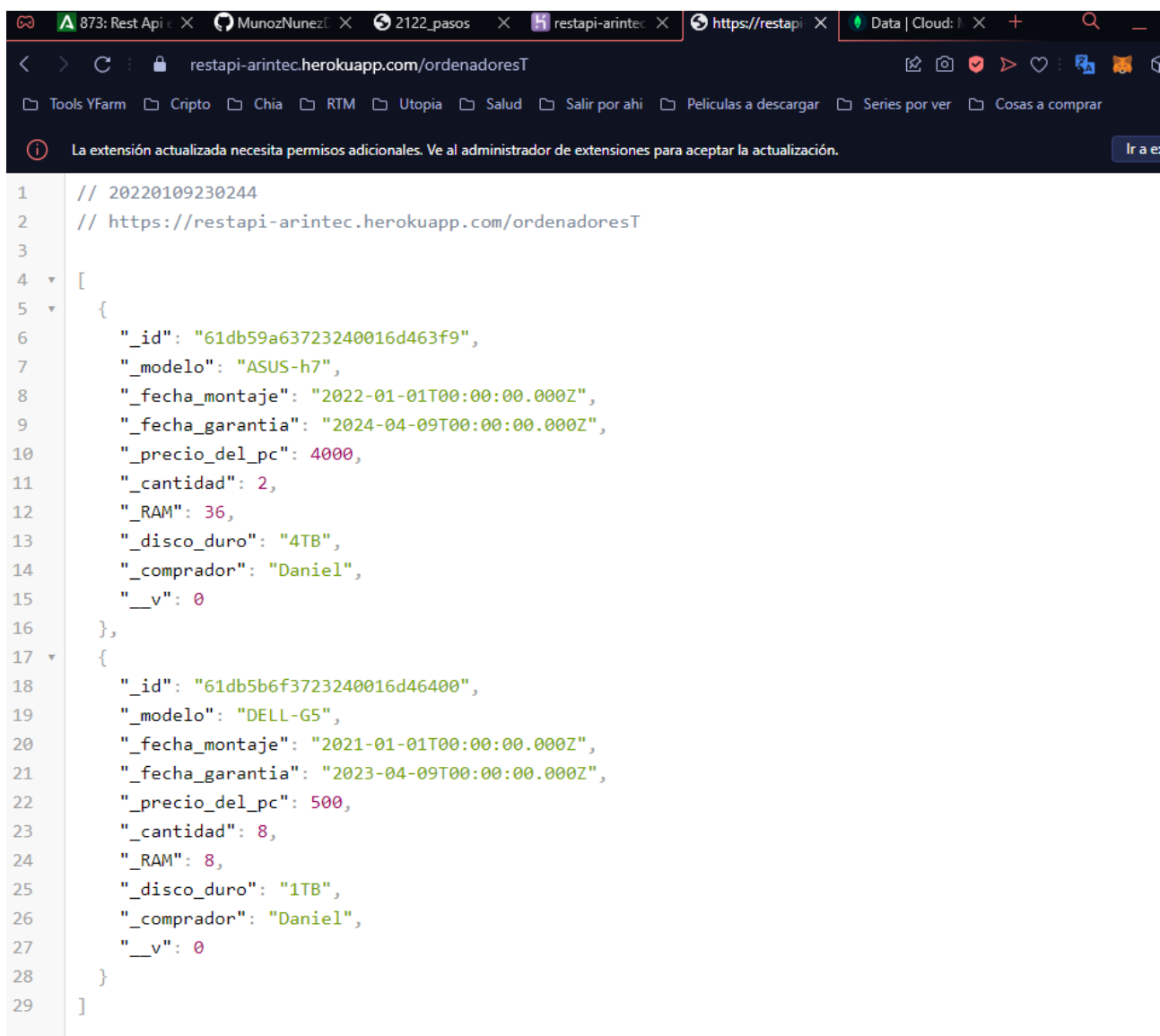
```
1 {
2   "modelo": "ASUS-h7",
3   "fecha_montaje": "2022-01-01",
4   "fecha_garantia": "2024-04-09",
5   "precio_del_pc": 4000,
6   "cantidad": 2,
7   "RAM": 36,
8   "disco_duro": "4TB",
9   "tipo": "Sobremesa",
10  "comprador": "Daniel"
11 }
```

Body Cookies Headers (12) Test Results 200 OK 492 ms 760 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "_id": "61db59a63723240016d463f9",
3   "modelo": "ASUS-h7",
4   "_fecha_montaje": "2022-01-01T00:00:00.000Z",
5   "_fecha_garantia": "2024-04-09T00:00:00.000Z",
6   "_precio_del_pc": 4000,
7   "_cantidad": 2,
8   "_RAM": 36,
9   "_disco_duro": "4TB",
10  "_comprador": "Daniel",
11  "_v": 0
12 }
```

```
1 // 20220109225744
2 // https://restapi-arintec.herokuapp.com/ordenadoresT
3
4 [
5   {
6     "_id": "61db59a63723240016d463f9",
7     "_modelo": "ASUS-h7",
8     "_fecha_montaje": "2022-01-01T00:00:00.000Z",
9     "_fecha_garantia": "2024-04-09T00:00:00.000Z",
10    "_precio_del_pc": 4000,
11    "_cantidad": 2,
12    "_RAM": 36,
13    "_disco_duro": "4TB",
14    "_comprador": "Daniel",
15    "__v": 0
16  }
17 ]
```



The screenshot shows a web browser window with the address bar displaying `restapi-arintec.herokuapp.com/ordenadoresT`. The browser's address bar also shows a notification: "La extensión actualizada necesita permisos adicionales. Ve al administrador de extensiones para aceptar la actualización." Below the address bar, there is a search bar and a list of bookmarks including "Tools YFarm", "Cripto", "Chia", "RTM", "Utopia", "Salud", "Salir por ahi", "Películas a descargar", "Series por ver", and "Cosas a comprar". The main content area of the browser displays a JSON array of two computer objects. The first object represents an ASUS laptop with a price of 4000 and a quantity of 2. The second object represents a DELL laptop with a price of 500 and a quantity of 8. Both objects include fields for ID, model, assembly date, warranty date, price, quantity, RAM, hard drive, and buyer name.

```
1 // 20220109230244
2 // https://restapi-arintec.herokuapp.com/ordenadoresT
3
4 [
5   {
6     "_id": "61db59a63723240016d463f9",
7     "_modelo": "ASUS-h7",
8     "_fecha_montaje": "2022-01-01T00:00:00.000Z",
9     "_fecha_garantia": "2024-04-09T00:00:00.000Z",
10    "_precio_del_pc": 4000,
11    "_cantidad": 2,
12    "_RAM": 36,
13    "_disco_duro": "4TB",
14    "_comprador": "Daniel",
15    "__v": 0
16  },
17  {
18    "_id": "61db5b6f3723240016d46400",
19    "_modelo": "DELL-G5",
20    "_fecha_montaje": "2021-01-01T00:00:00.000Z",
21    "_fecha_garantia": "2023-04-09T00:00:00.000Z",
22    "_precio_del_pc": 500,
23    "_cantidad": 8,
24    "_RAM": 8,
25    "_disco_duro": "1TB",
26    "_comprador": "Daniel",
27    "__v": 0
28  }
29 ]
```

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Working locally in Scratch Pad. Switch to a Workspace

Scratch Pad New Import Overview GET https://restapi-ari... Release Notes + ... No Environment

Collections + ...

APIs

Environments

Mock Servers

Monitors

History

You don't have any collections

Collections let you group related requests, making them easier to access and run.

Create Collection

https://restapi-arintec.herokuapp.com/ordenador/DELL-G5 Save

GET https://restapi-arintec.herokuapp.com/ordenador/DELL-G5 Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body Cookies Headers (12) Test Results 200 OK 653 ms 760 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "_id": "61db5b6f3723240016d46400",
3   "_modelo": "DELL-G5",
4   "_fecha_montaje": "2021-01-01T00:00:00.000Z",
5   "_fecha_garantia": "2023-04-09T00:00:00.000Z",
6   "_precio_del_pc": 500,
7   "_cantidad": 8,
8   "_RAM": 8,
9   "_disco_duro": "1TB",
10  "_comprador": "Daniel",
11  "_v": 0
12 }
13
14
```



```
873: Rest Api x MunozNunez x 2122_pasos x restapi-arintec x https://restapi x Data | Cloud: x +
restapi-arintec.herokuapp.com/compradores
Tools YFarm CRYPTO Chia RTM Utopia Salud Salir por ahi Peliculas a descargar Series por ver Cosas a comprar

1 // 20220109233045
2 // https://restapi-arintec.herokuapp.com/compradores
3
4 [
5 {
6   "_id": "61db53df2466b90016785117",
7   "_identif": "UR340",
8   "_nombre_comprador": "Daniel",
9   "_presupuesto": 10000,
10  "_n_telefono": 686993301,
11  "__v": 0,
12  "_ordenadores_comprados": [
13    {
14      "_id": "61db59a63723240016d463f9",
15      "_modelo": "ASUS-h7",
16      "_fecha_montaje": "2022-01-01T00:00:00.000Z",
17      "_fecha_garantia": "2024-04-09T00:00:00.000Z",
18      "_precio_del_pc": 4000,
19      "_cantidad": 2,
20      "_RAM": 36,
21      "_disco_duro": "4TB",
22      "_comprador": "Daniel",
23      "__v": 0
24    },
25    {
26      "_id": "61db5b6f3723240016d46400",
27      "_modelo": "DELL-G5",
28      "_fecha_montaje": "2021-01-01T00:00:00.000Z",
29      "_fecha_garantia": "2023-04-09T00:00:00.000Z",
30      "_precio_del_pc": 500,
31      "_cantidad": 8,
32      "_RAM": 8,
33      "_disco_duro": "1TB",
34      "_comprador": "Daniel",
35      "__v": 0
36    }
37  ],
38 },
39 {
40   "_id": "61db61771dddf400165017bb",
41   "_identif": "RF338",
42   "_nombre_comprador": "Rafa",
43   "_presupuesto": 5000,
44   "_n_telefono": 666749300,
45   "__v": 0,
46   "_ordenadores_comprados": [
47     {
48       "_id": "61db60521dddf400165017b5",
49       "_modelo": "HP-h3",
50       "_fecha_montaje": "2025-01-01T00:00:00.000Z",
51       "_fecha_garantia": "2027-04-09T00:00:00.000Z",
52       "_precio_del_pc": 300,
53       "_cantidad": 1,
54       "_RAM": 8,
55       "_disco_duro": "500GB",
56       "_comprador": "Rafa",
57       "__v": 0
58     },
59     {
60       "_id": "61db60971dddf400165017b7",
61       "_modelo": "ACER-A100",
62       "_fecha_montaje": "2026-01-01T00:00:00.000Z",
63       "_fecha_garantia": "2028-04-09T00:00:00.000Z",
64       "_precio_del_pc": 700,
65       "_cantidad": 5,
66       "_RAM": 4,
67       "_disco_duro": "1TB",
68       "_comprador": "Rafa",
69       "__v": 0
70     }
71   ],
72 },
73 ]
```

```
1 // 20220109233248
2 // https://restapi-arintec.herokuapp.com/comprador/Rafa
3
4 [
5   {
6     "_id": "61db61771dddf400165017bb",
7     "_identif": "RF338",
8     "_nombre_comprador": "Rafa",
9     "_presupuesto": 5000,
10    "_n_telefono": 666749300,
11    "__v": 0,
12    "_ordenadores_comprados": [
13      {
14        "_id": "61db60521dddf400165017b5",
15        "_modelo": "HP-h3",
16        "_fecha_montaje": "2025-01-01T00:00:00.000Z",
17        "_fecha_garantia": "2027-04-09T00:00:00.000Z",
18        "_precio_del_pc": 300,
19        "_cantidad": 1,
20        "_RAM": 8,
21        "_disco_duro": "500GB",
22        "_comprador": "Rafa",
23        "__v": 0
24      },
25      {
26        "_id": "61db60971dddf400165017b7",
27        "_modelo": "ACER-A100",
28        "_fecha_montaje": "2026-01-01T00:00:00.000Z",
29        "_fecha_garantia": "2028-04-09T00:00:00.000Z",
30        "_precio_del_pc": 700,
31        "_cantidad": 5,
32        "_RAM": 4,
33        "_disco_duro": "1TB",
34        "_comprador": "Rafa",
35        "__v": 0
36      }
37    ]
38  }
39 ]
```