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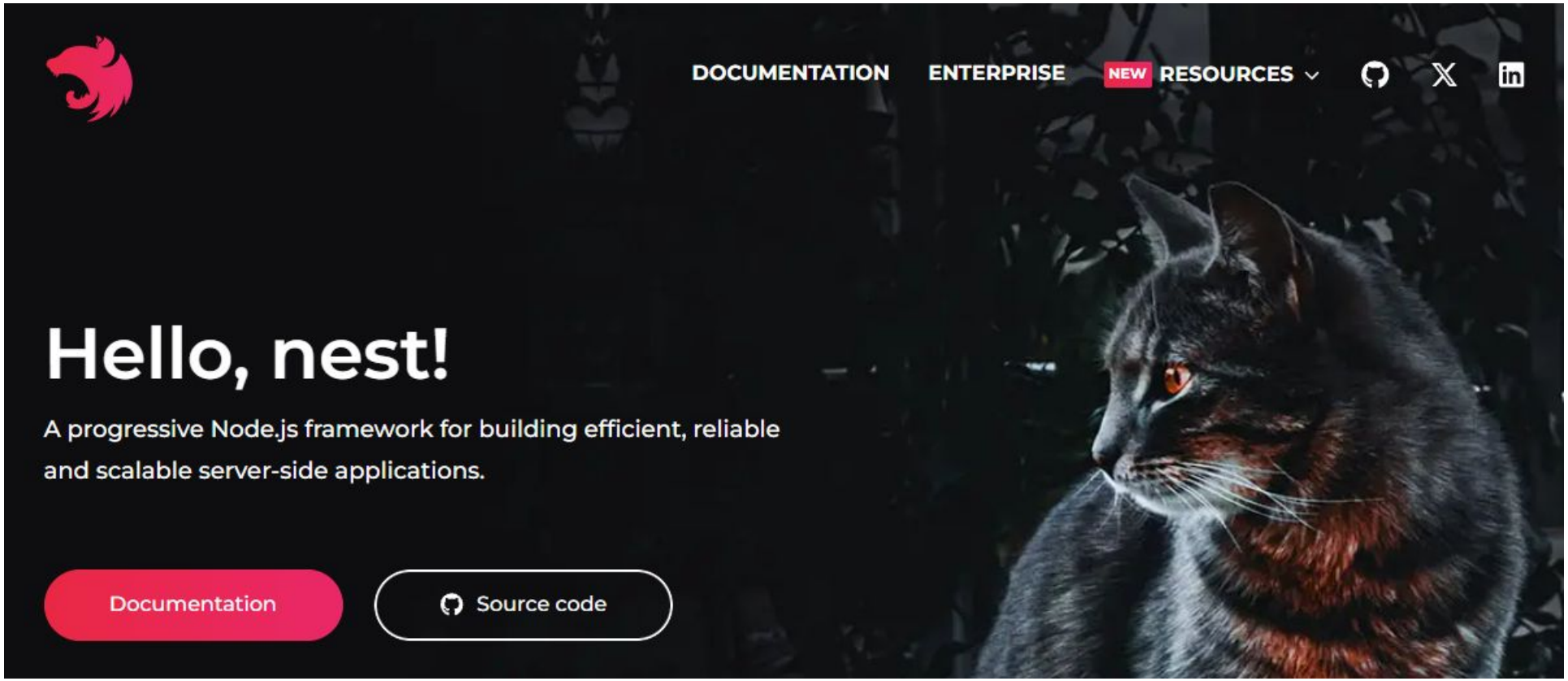
Nest.js

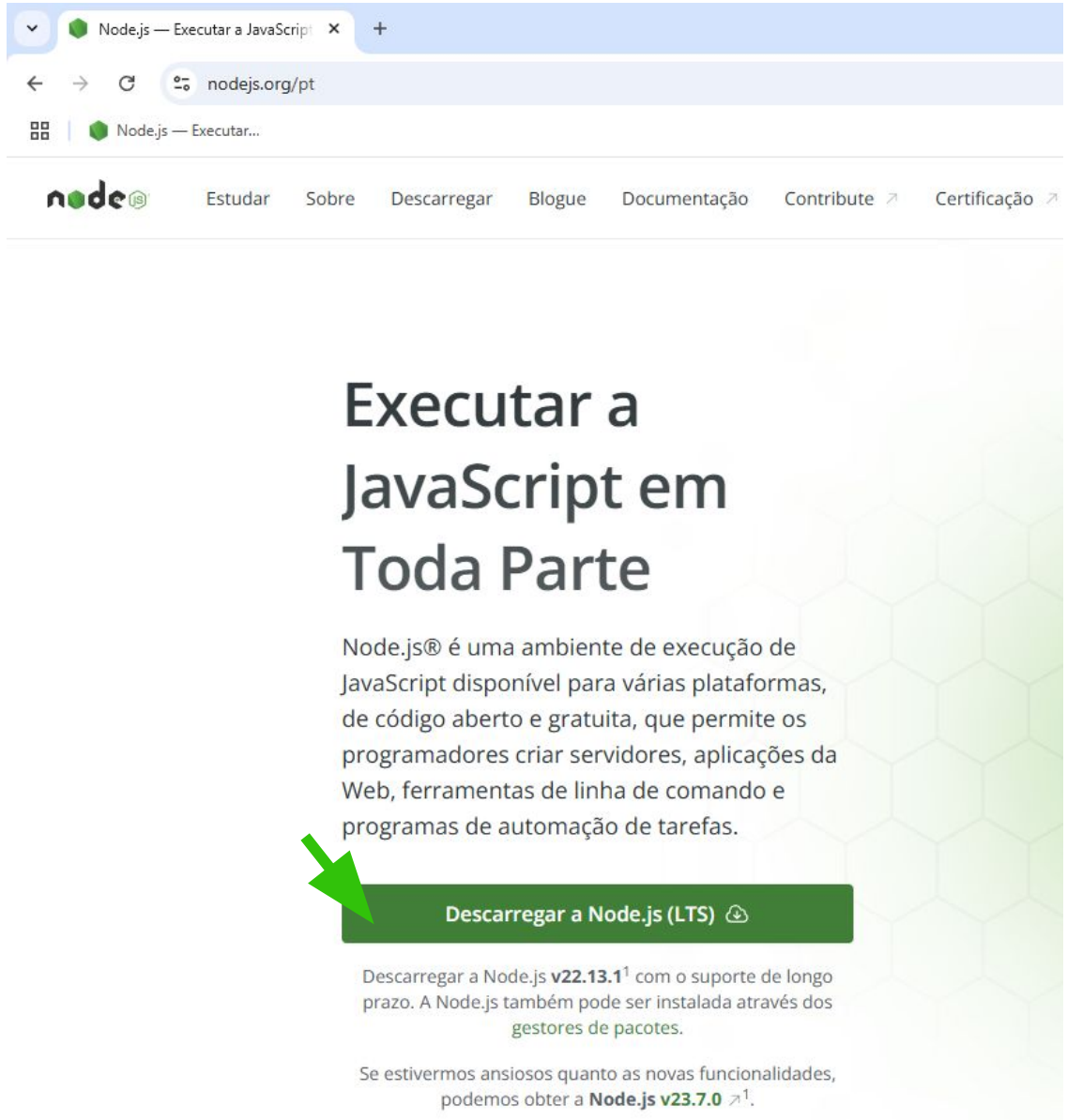


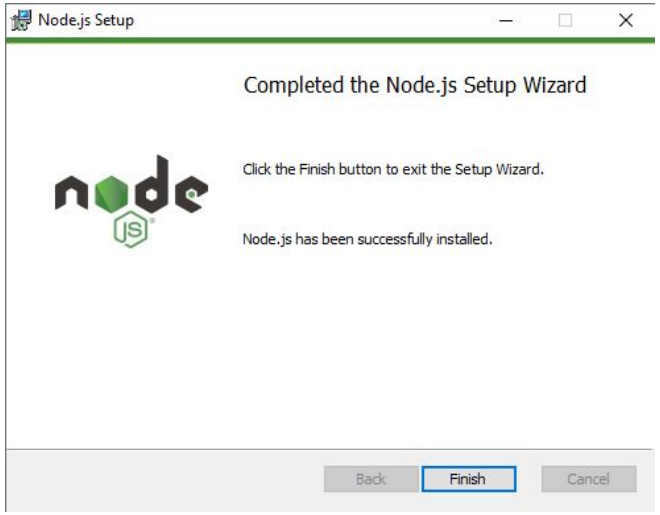
Prof. Dr. Robyson Aggio

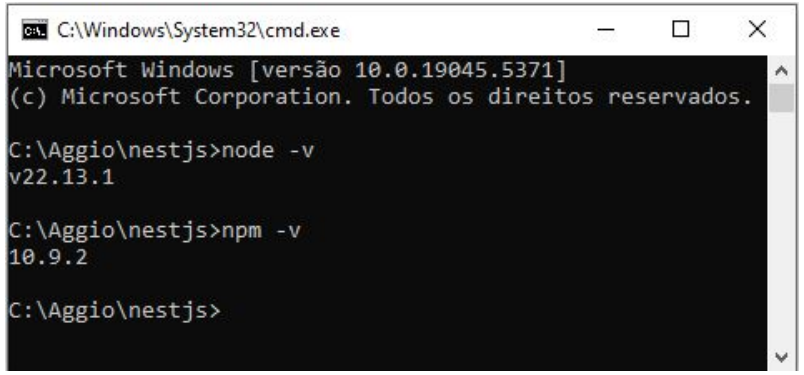
www.aggioirati.com.br

Introdução

- Nest JS
- Estrutura e Arquitetura → Modules, Providers, Exports, Imports
- Controllers / Services
- DTO’s, Pipes
- Prisma ORM, Banco de Dados → Middlewares, Filters, Interceptors, guards → Autenticação → Upload Arquivos
- Melhorando Arquitetura → Testes Automatizados → Swagger







npm = Node Package Manager

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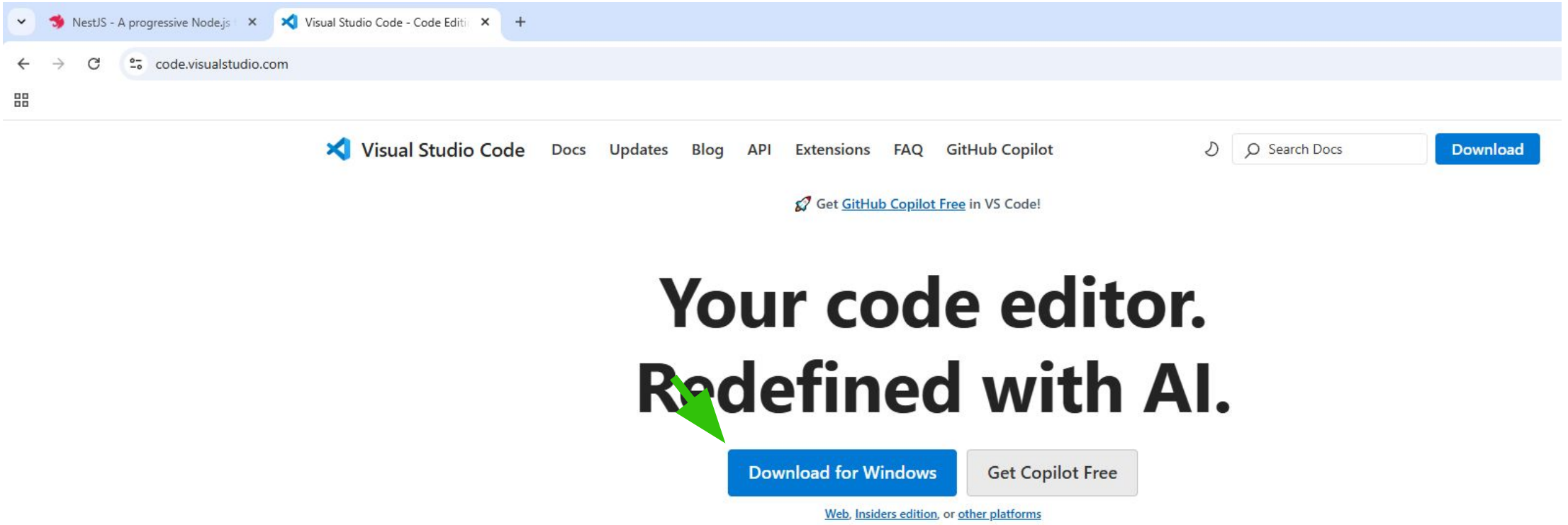
Visual Studio Code



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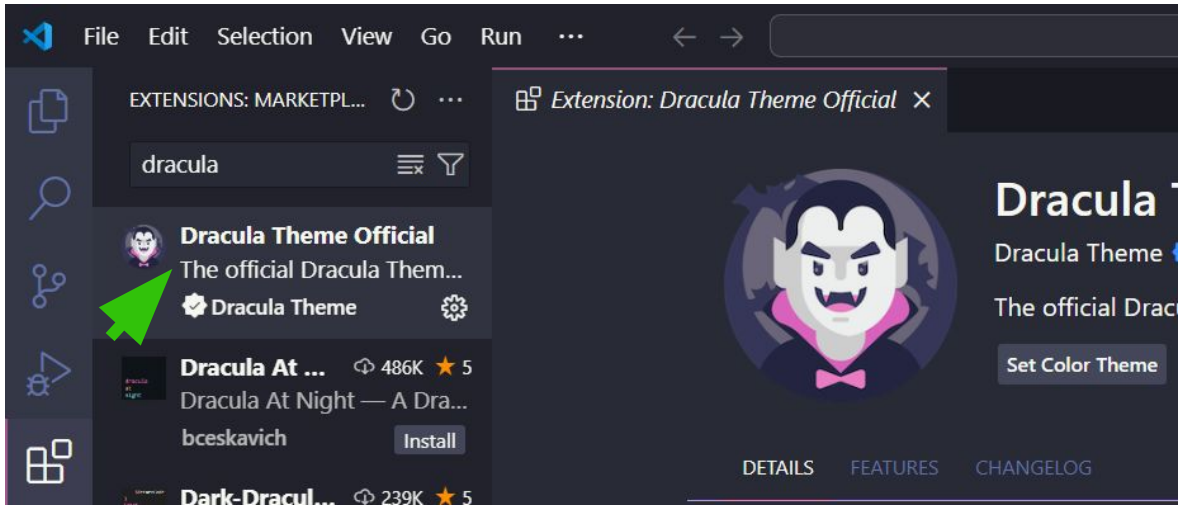
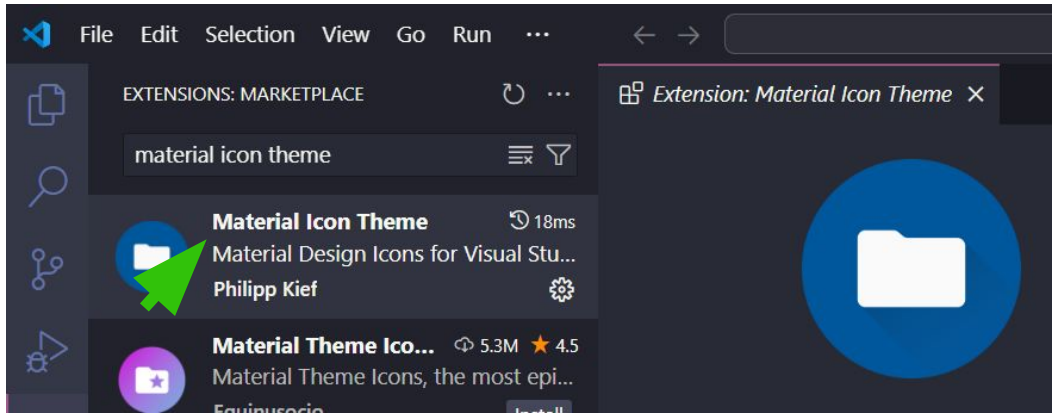
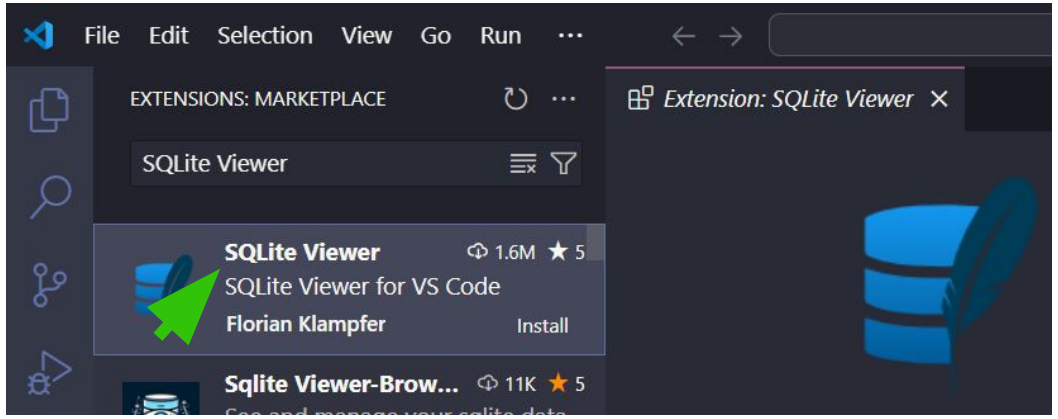
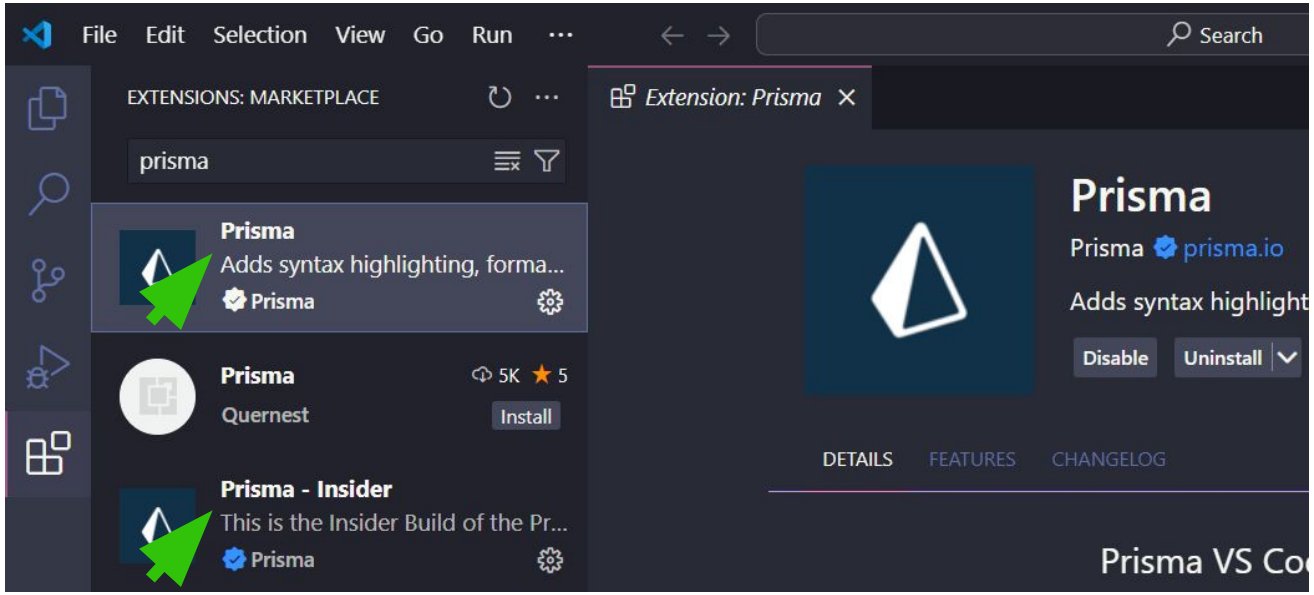
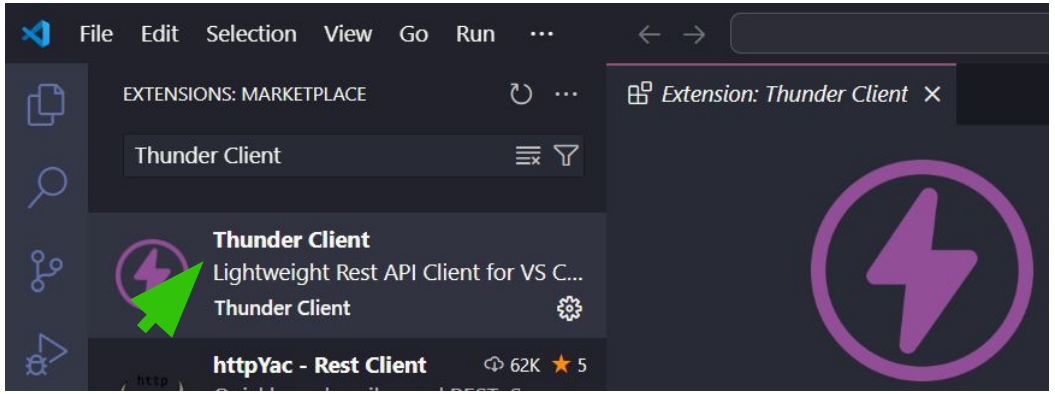
Visual Studio Code











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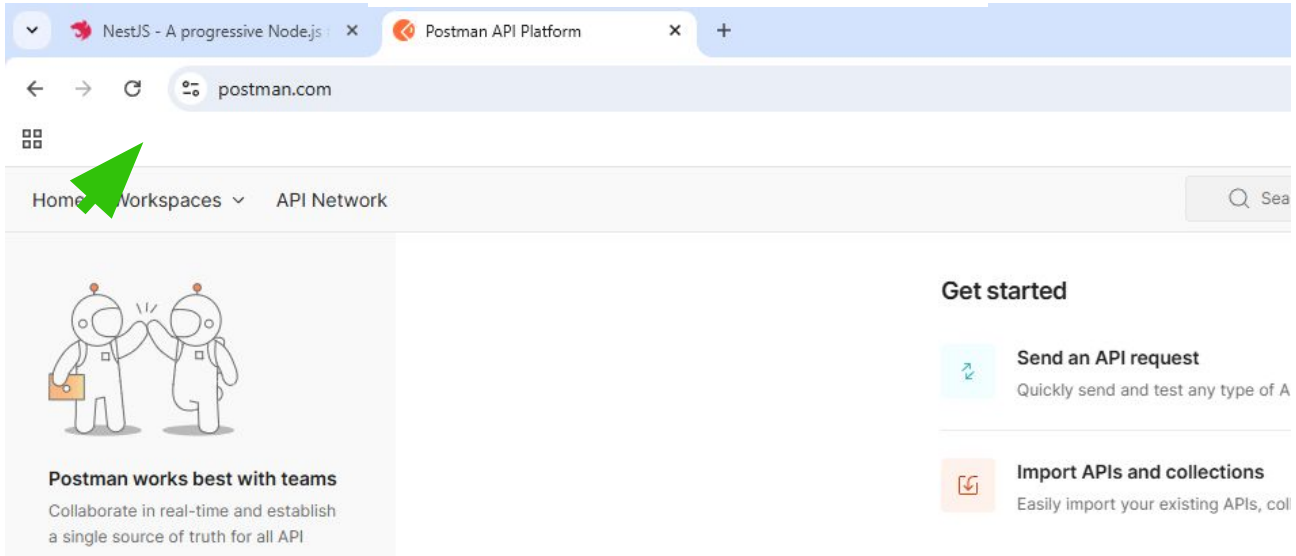
POSTMAN



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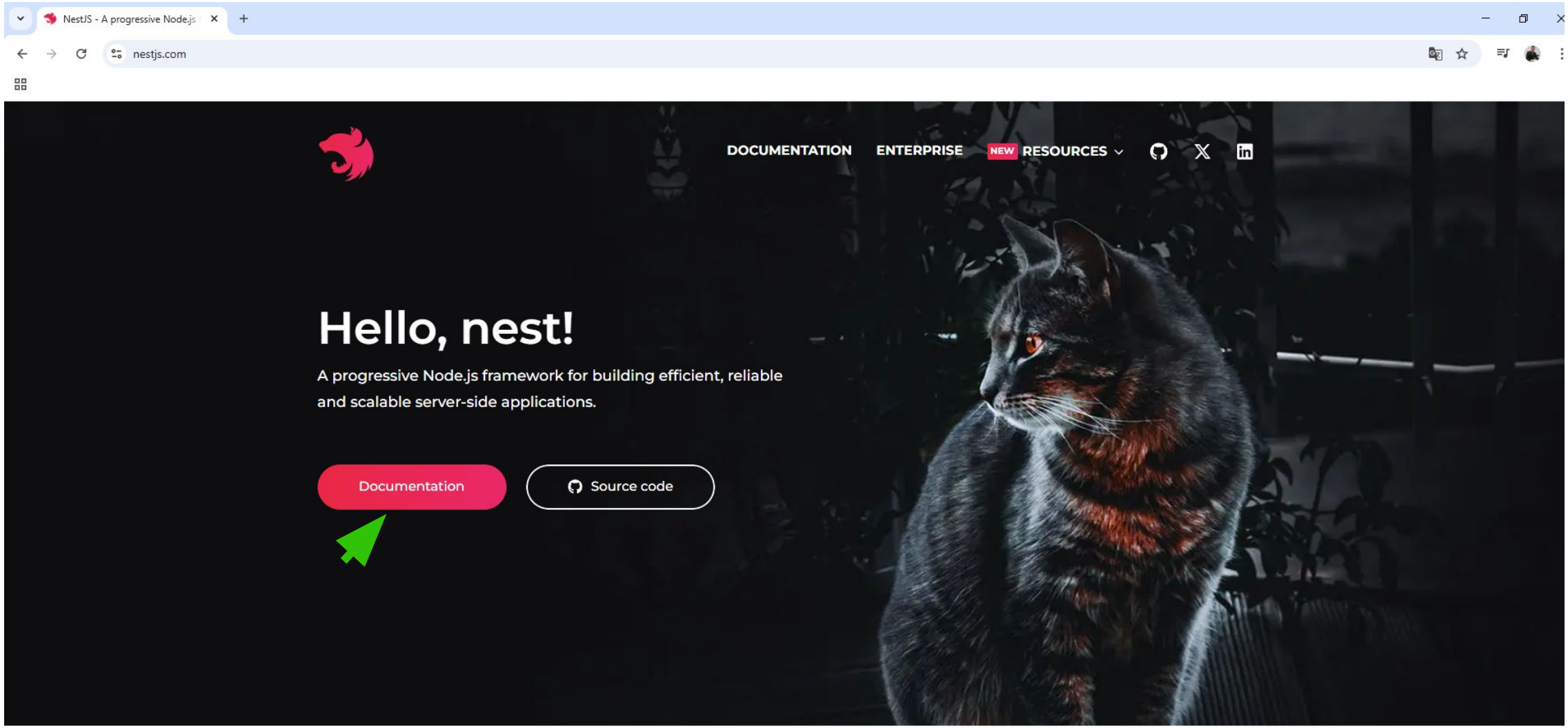
Nest JS



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Documentation | NestJS - A pro

docs.nestjs.com

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Introduction

Nest (NestJS) is a framework for building efficient, scalable Node.js server-side applications. It uses progressive JavaScript, is built with and fully supports TypeScript (yet still enables developers to code in pure JavaScript) and combines elements of OOP (Object Oriented Programming), FP (Functional Programming), and FRP (Functional Reactive Programming).

Under the hood, Nest makes use of robust HTTP Server frameworks like Express (the defau

Nest provides a level of abstraction above these common Node.js frameworks (Express/Fa
the myriad of third-party modules which are available for the underlying platform.

Philosophy

In recent years, thanks to Node.js, JavaScript has become the "lingua franca" of the web fo
and Vue, which improve developer productivity and enable the creation of fast, testable, a
exist for Node (and server-side JavaScript), none of them effectively solve the main proble

Nest provides an out-of-the-box application architecture which allows developers and tea
architecture is heavily inspired by Angular.

Installation

To get started, you can either scaffold the project with the Nest CLI, or clone a starter proj

To scaffold the project with the Nest CLI, run the following commands. This will create a ne
modules, creating a conventional base structure for your project. Creating a new project wi
Steps.

```
$ npm i -g @nestjs/cli
$ nest new project-name
```


C:\Windows\System32\cmd.exe

```
Microsoft Windows [versão 10.0.19045.5371]
(c) Microsoft Corporation. Todos os direitos reservados.

C:\Aggio\nestjs>node -v
v22.13.1

C:\Aggio\nestjs>npm -v
10.9.2

C:\Aggio\nestjs>npm i -g @nestjs/cli
```

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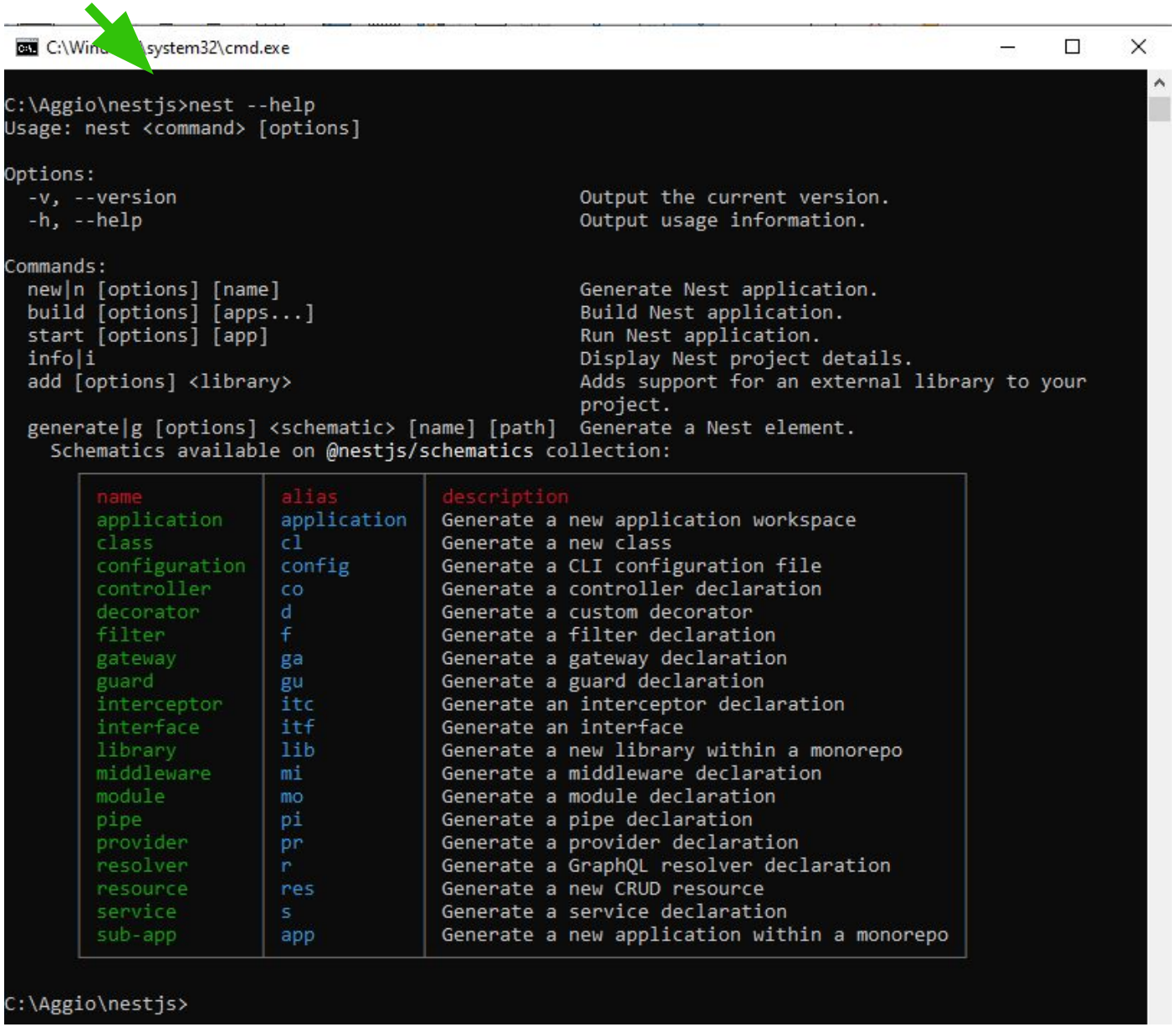

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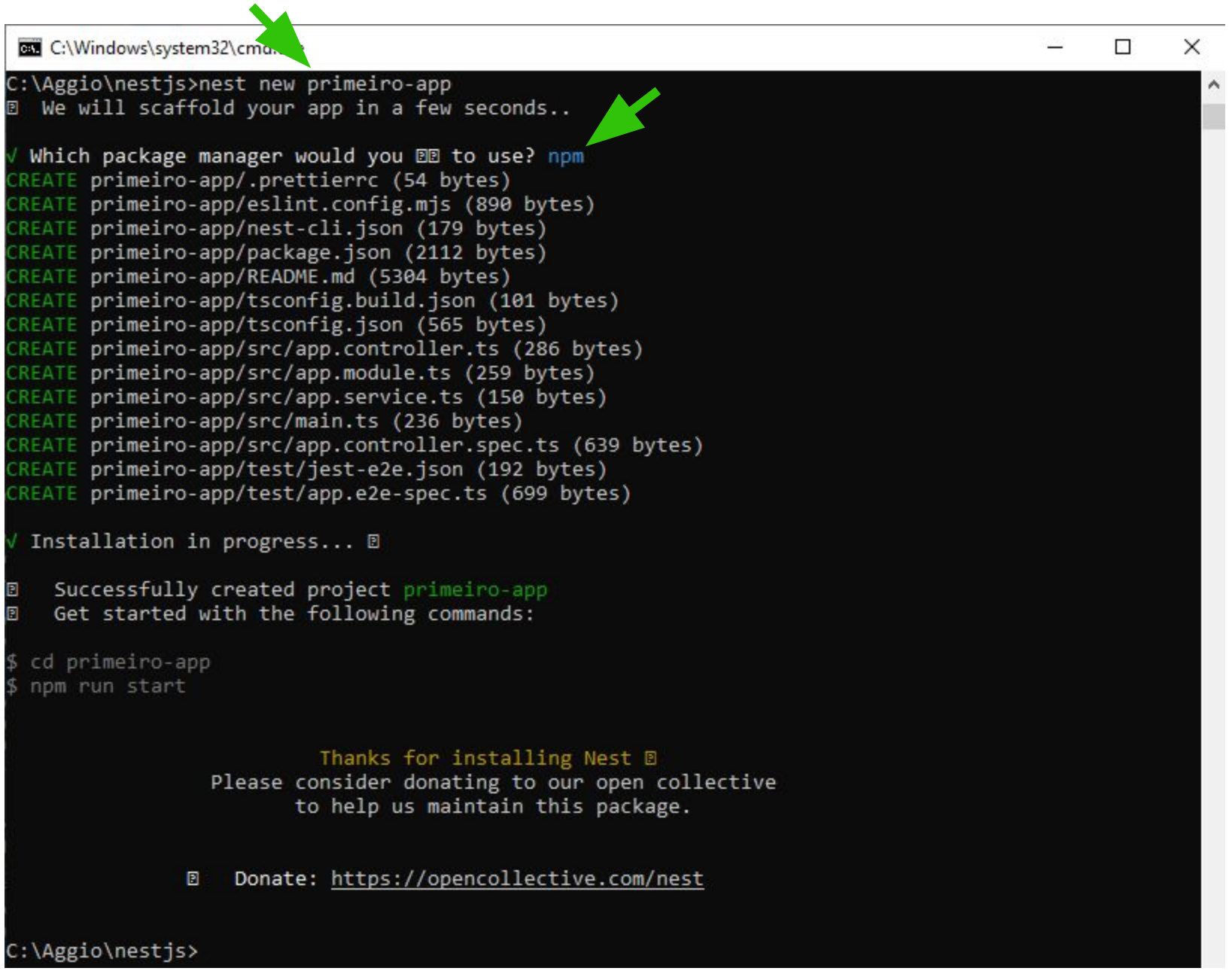

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C:\Windows\system32\cmd.exe

```
√ Installation in progress... ⠿

⠿   Successfully created project primeiro-app
⠿   Get started with the following commands:

$ cd primeiro-app
$ npm run start


                    Thanks for installing Nest ⠿
                Please consider donating to our open collective
                       to help us maintain this package.


               ⠿   Donate: https://opencollective.com/nest


C:\Aggio\nestjs>cd primeiro-app

C:\Aggio\nestjs\primeiro-app>code .

C:\Aggio\nestjs\primeiro-app>
```

Terminal no VSCode:
ctrl + j

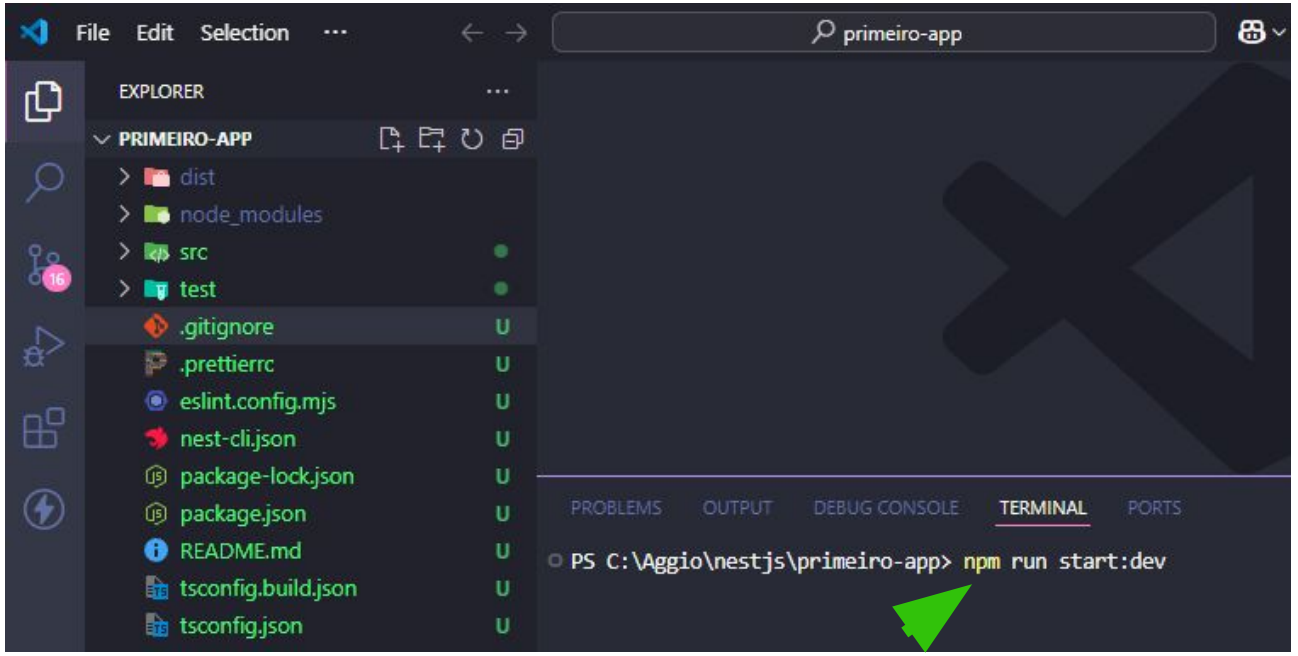
Prompt de Comando

```
C:\Aggio\nestjs>cd primeiro-app

C:\Aggio\nestjs\primeiro-app>code .

C:\Aggio\nestjs\primeiro-app>npm run start:dev
```

ou



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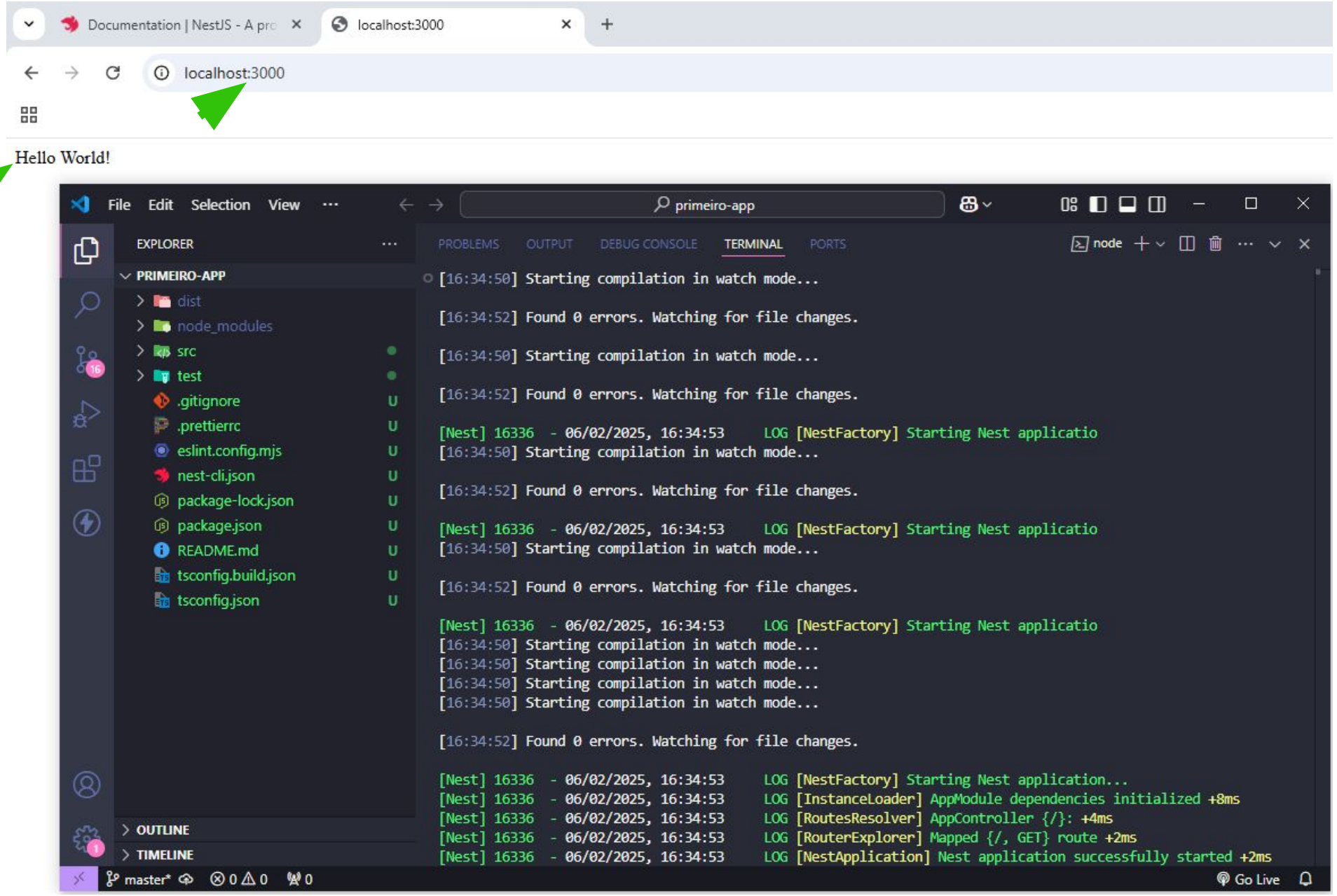

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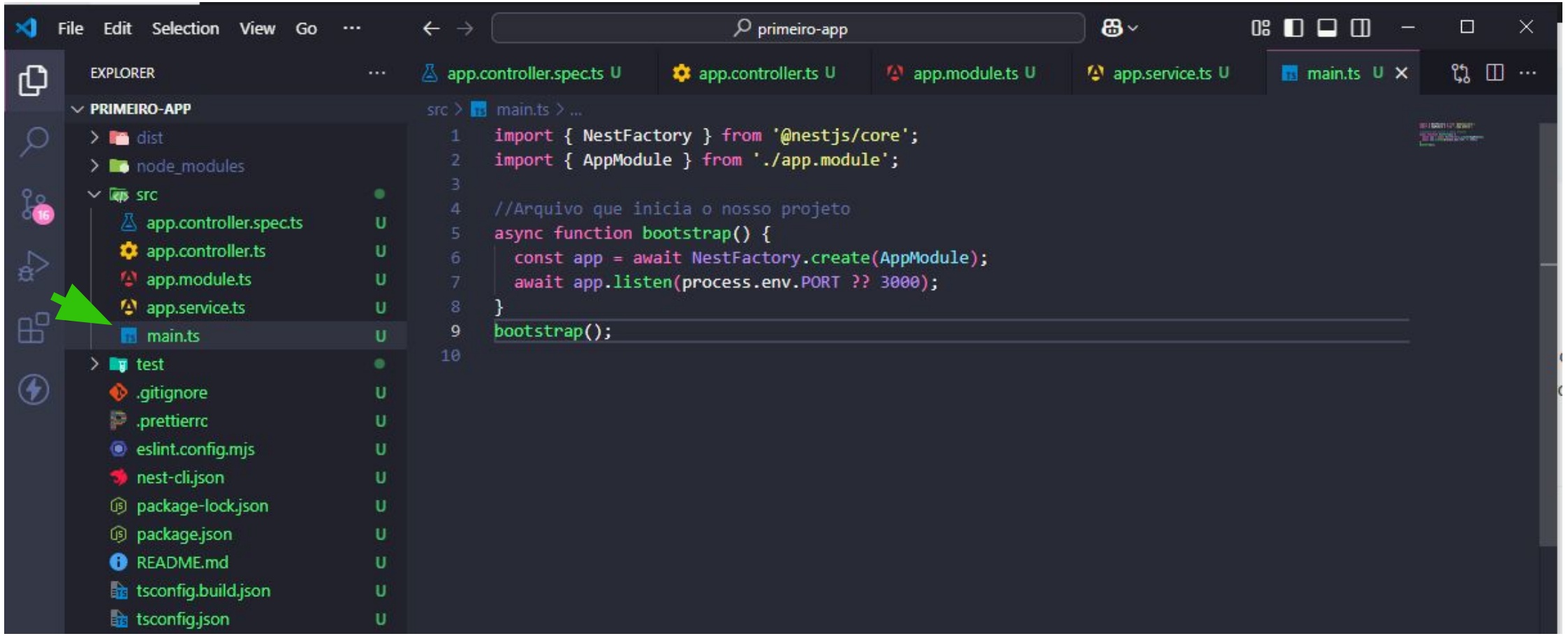
Estrutura do Projeto



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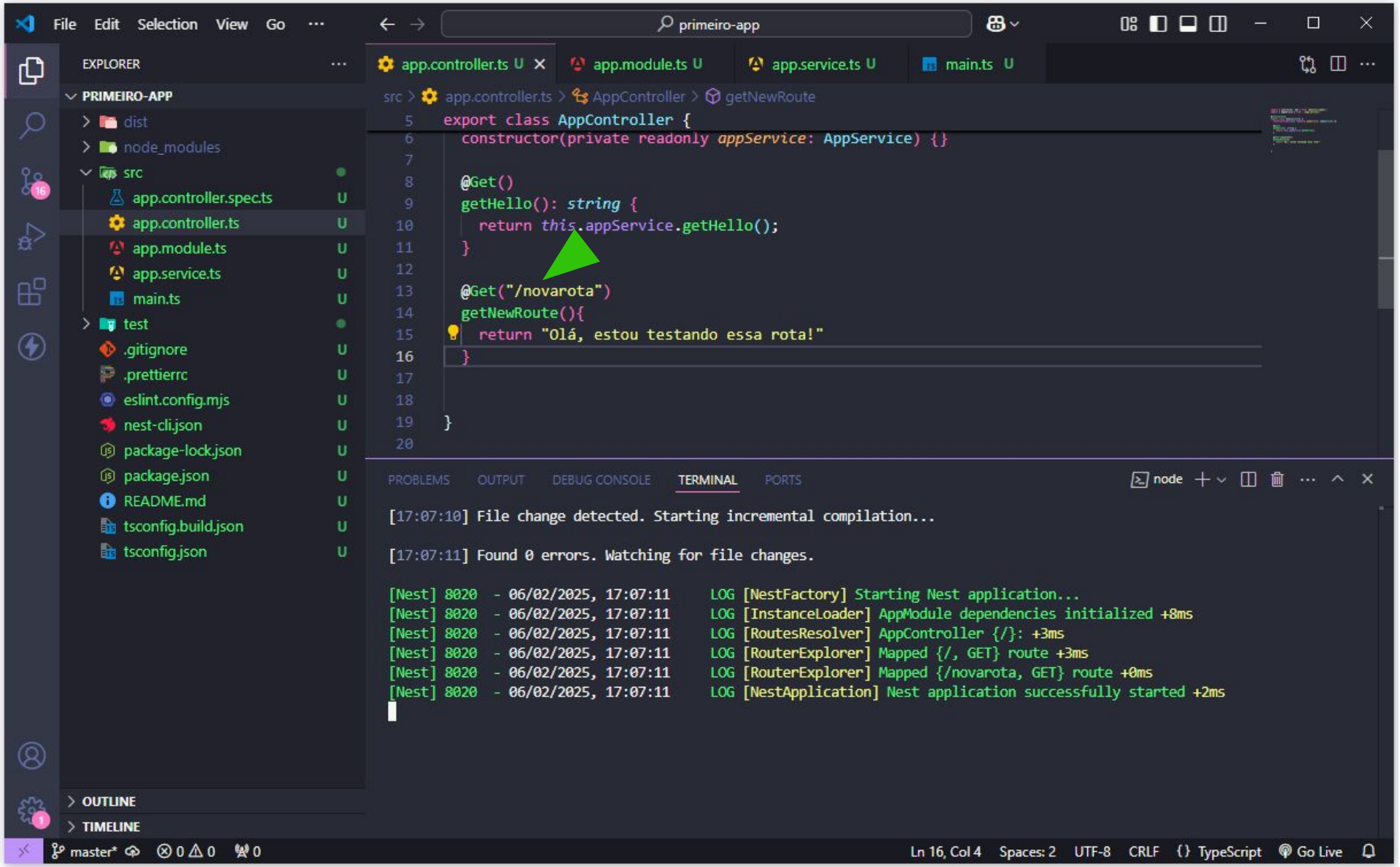
Documentation | NestJS - A pro

localhost:3000/novarota

localhost:3000/novarota

Olá, estou testando essa rota!



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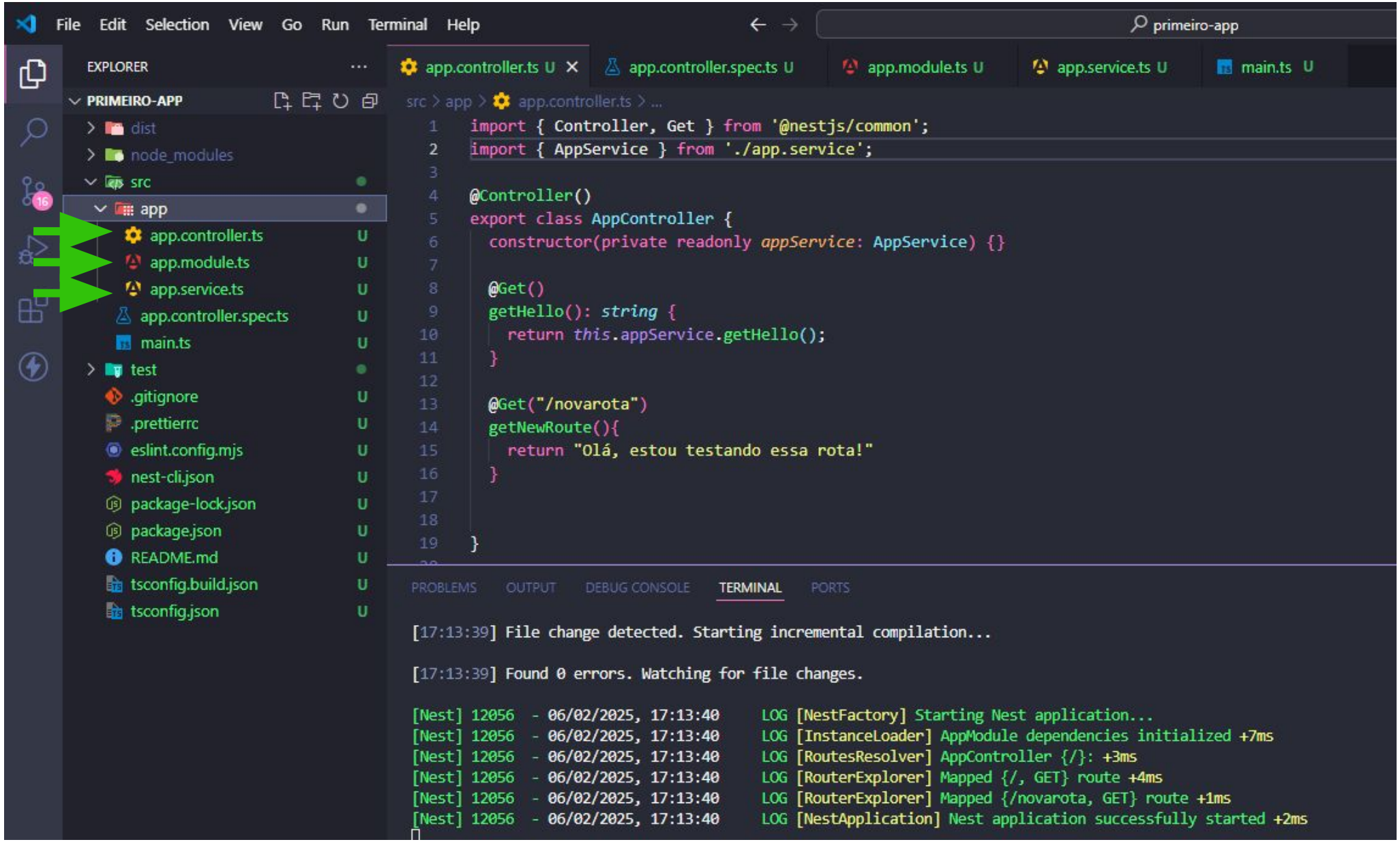
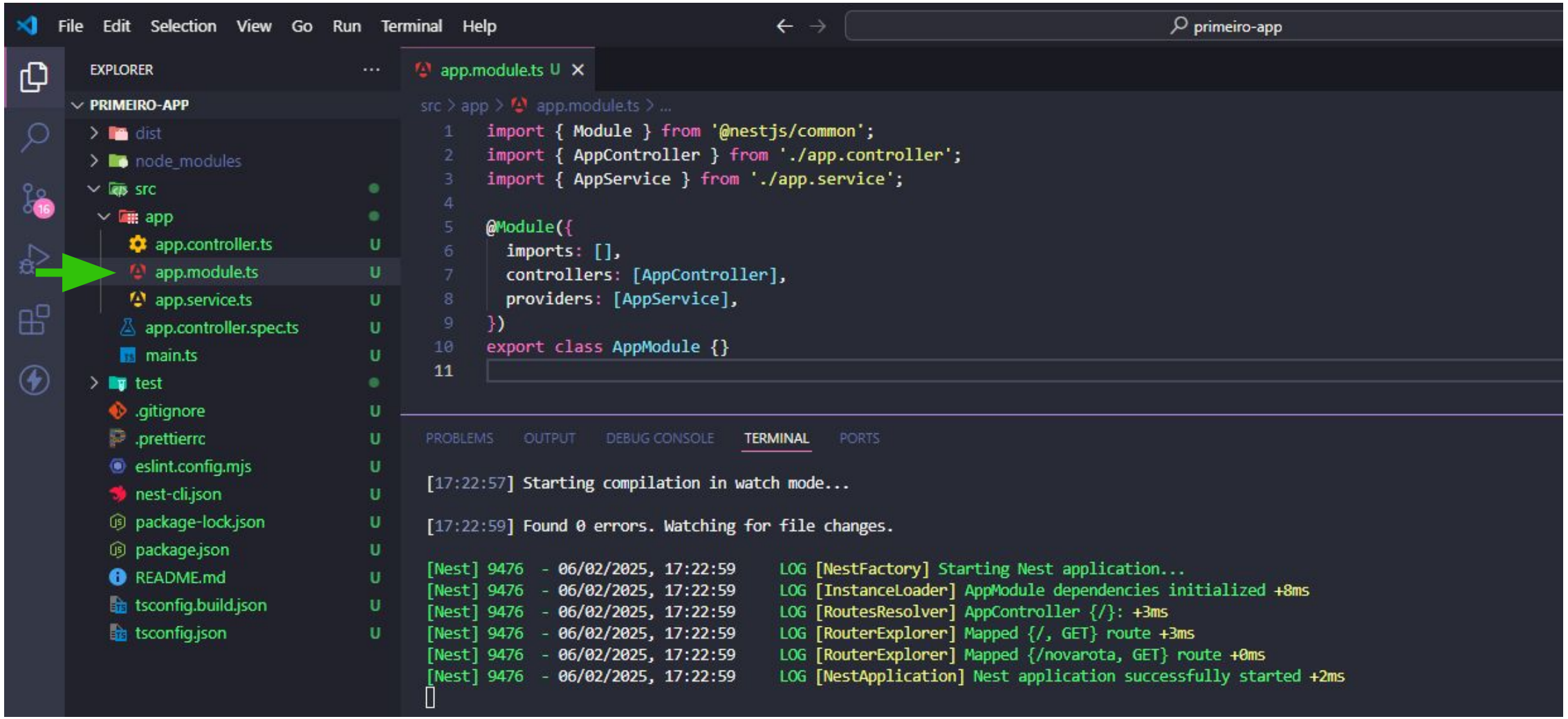


Módulo Principal do Projeto



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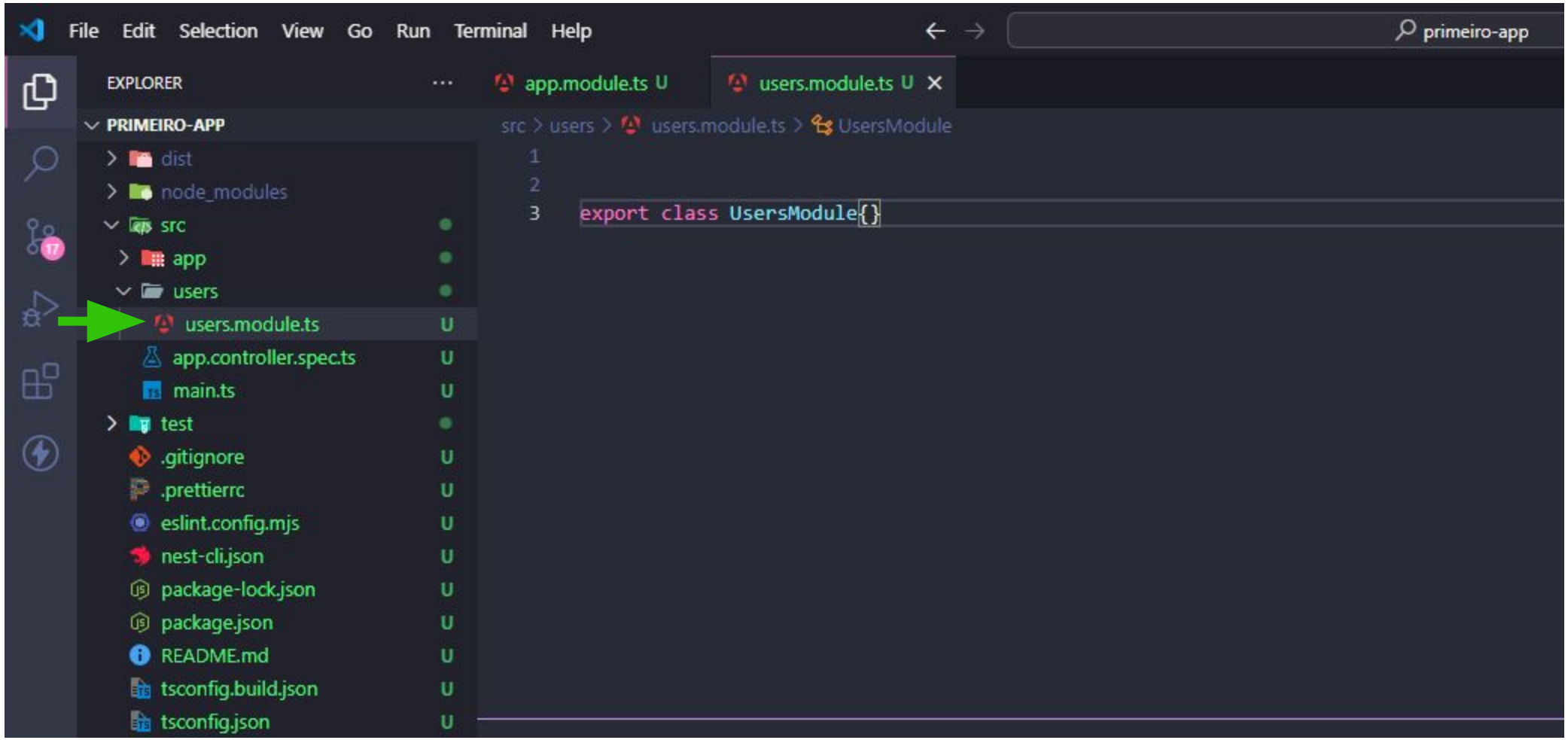
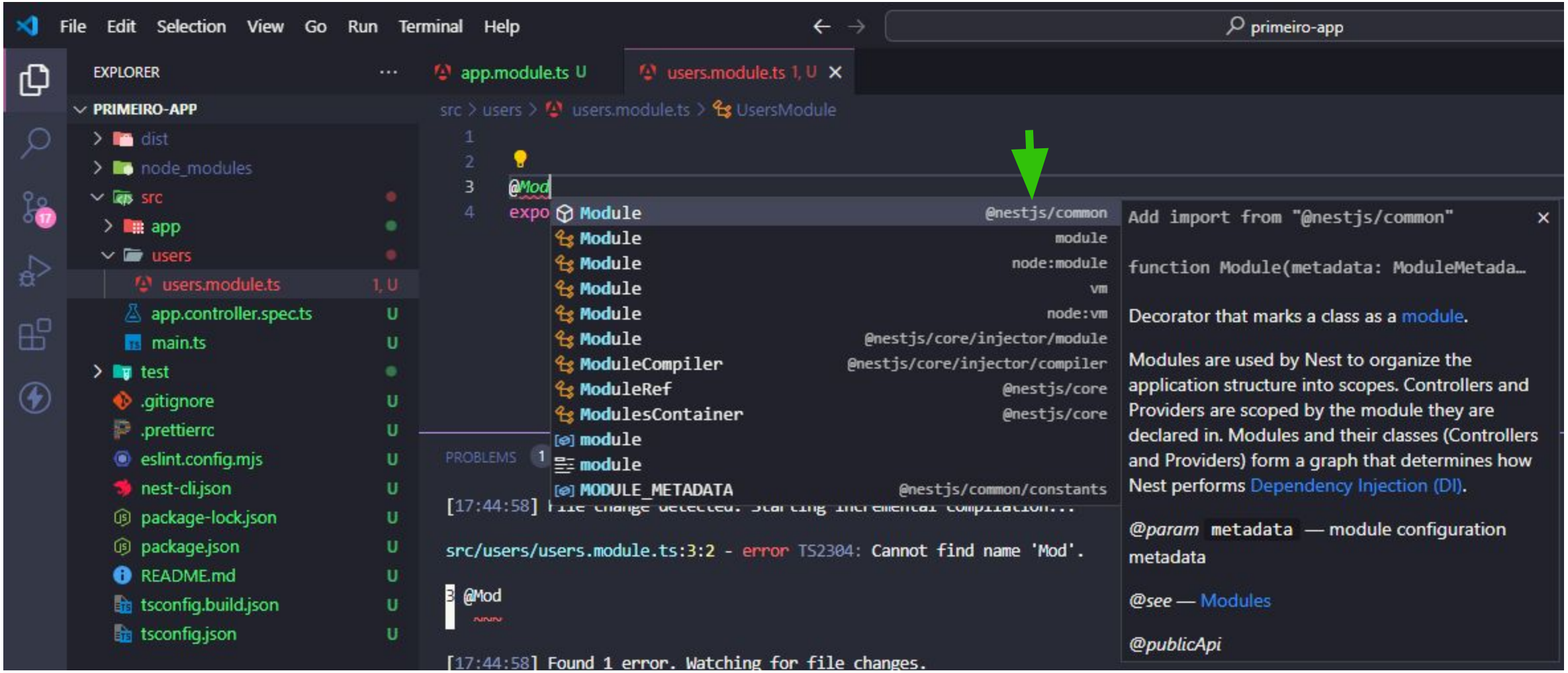
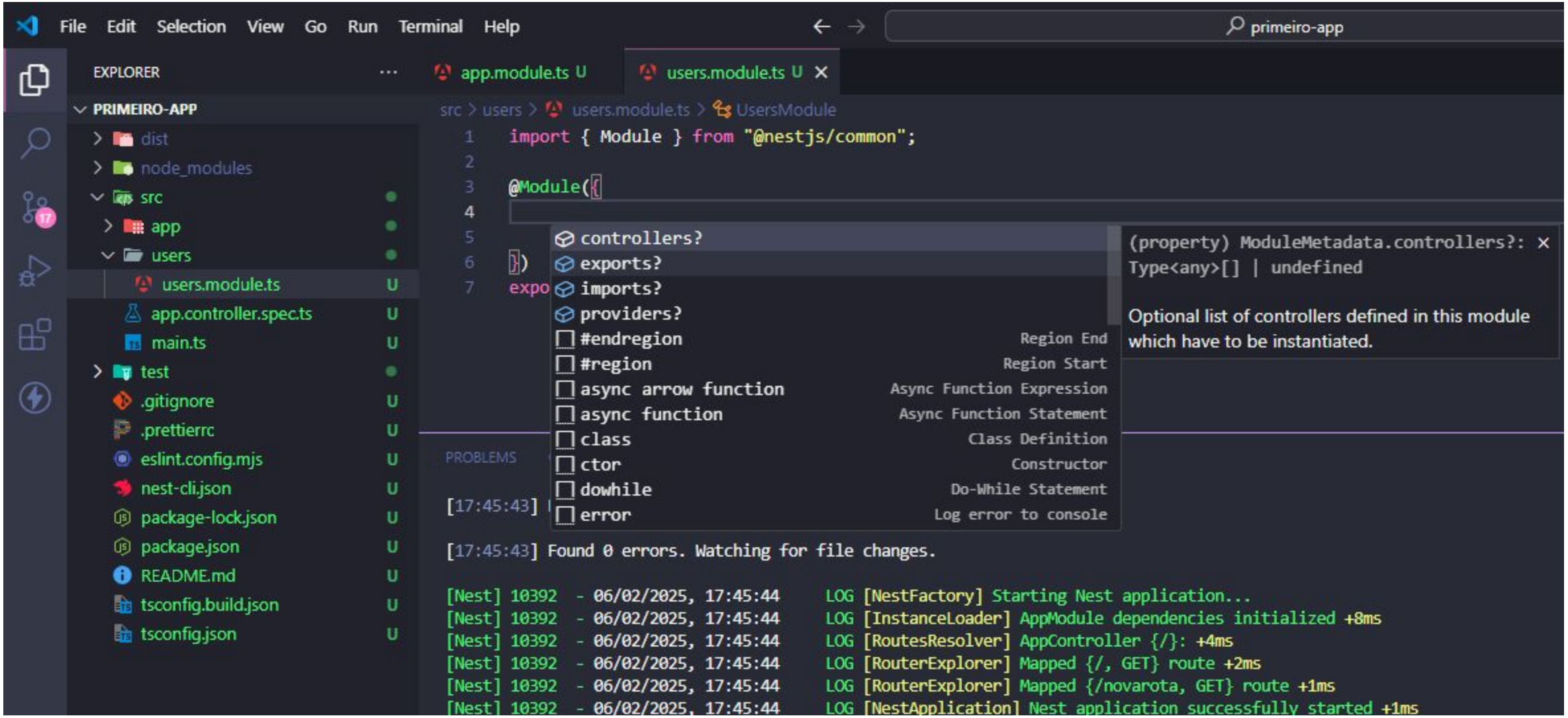
Criando um Módulo



Criando um Módulo



Criando um Módulo



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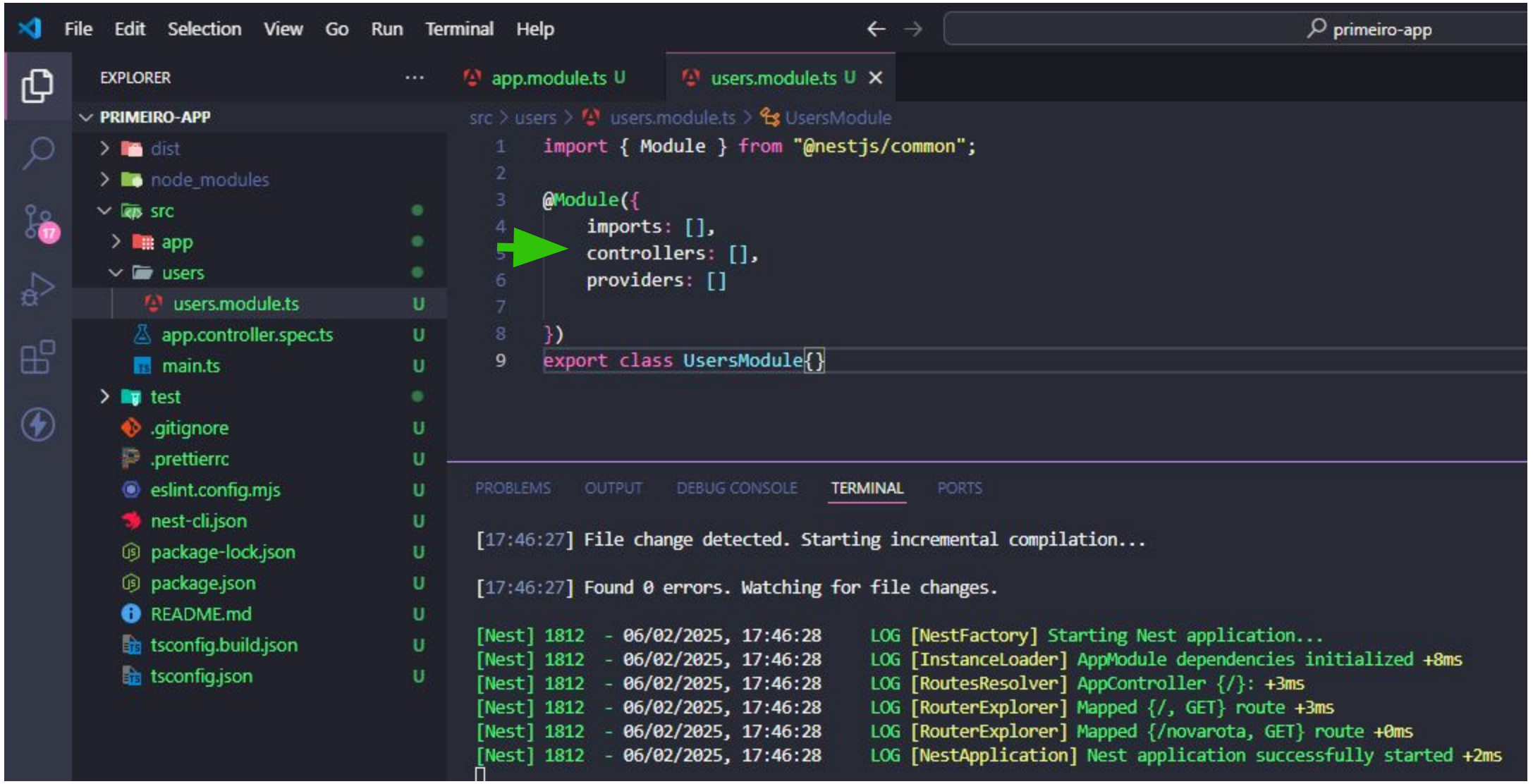
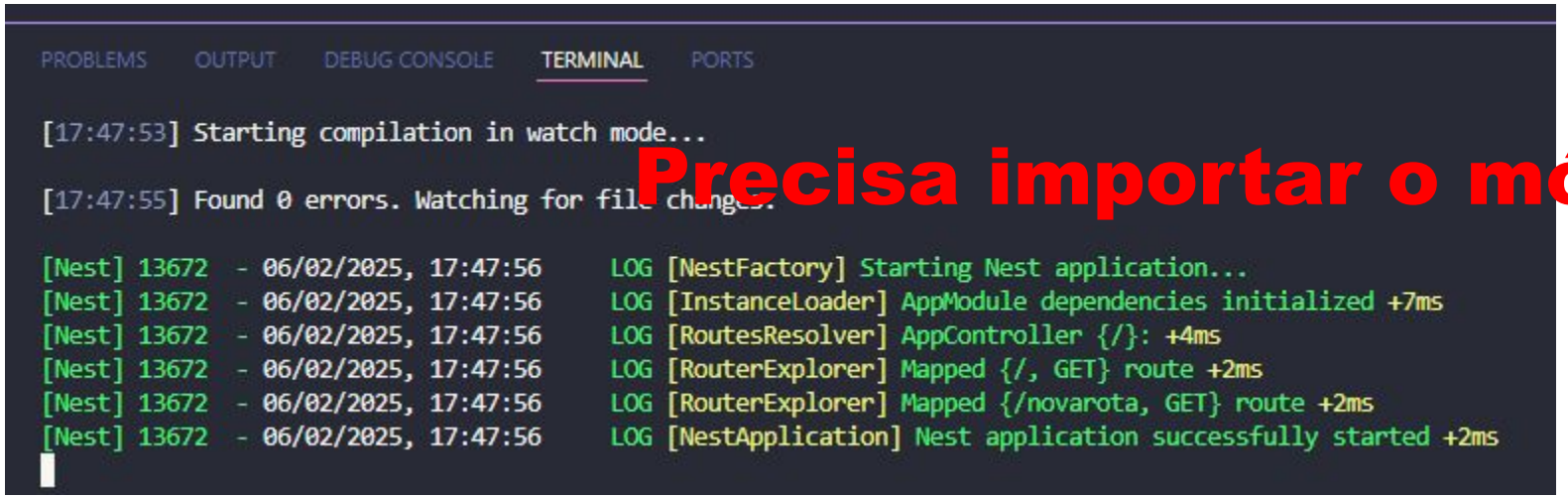
Criando um Módulo



Criando um Módulo



Precisa importar o módulo users

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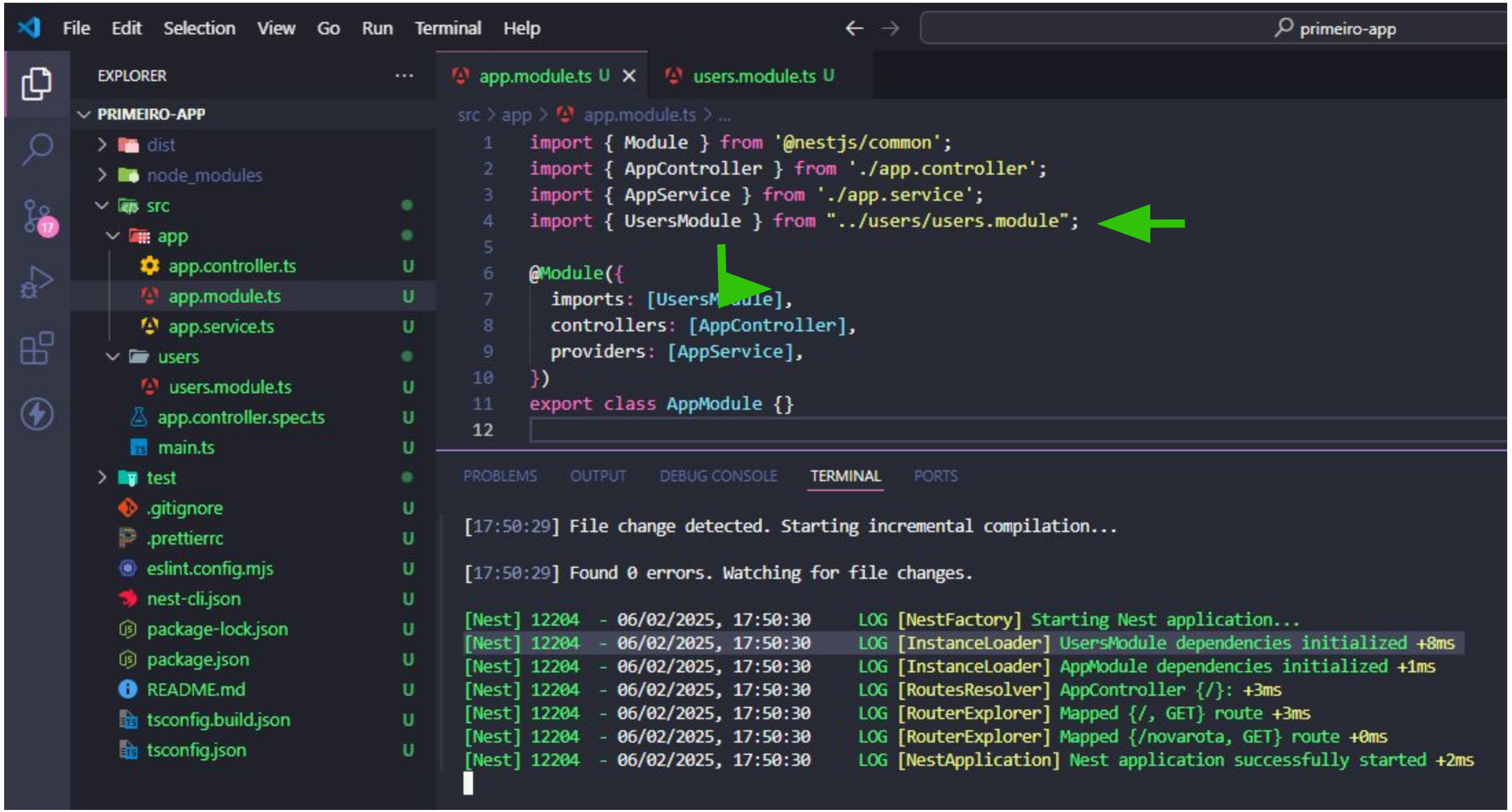
Criando um Módulo



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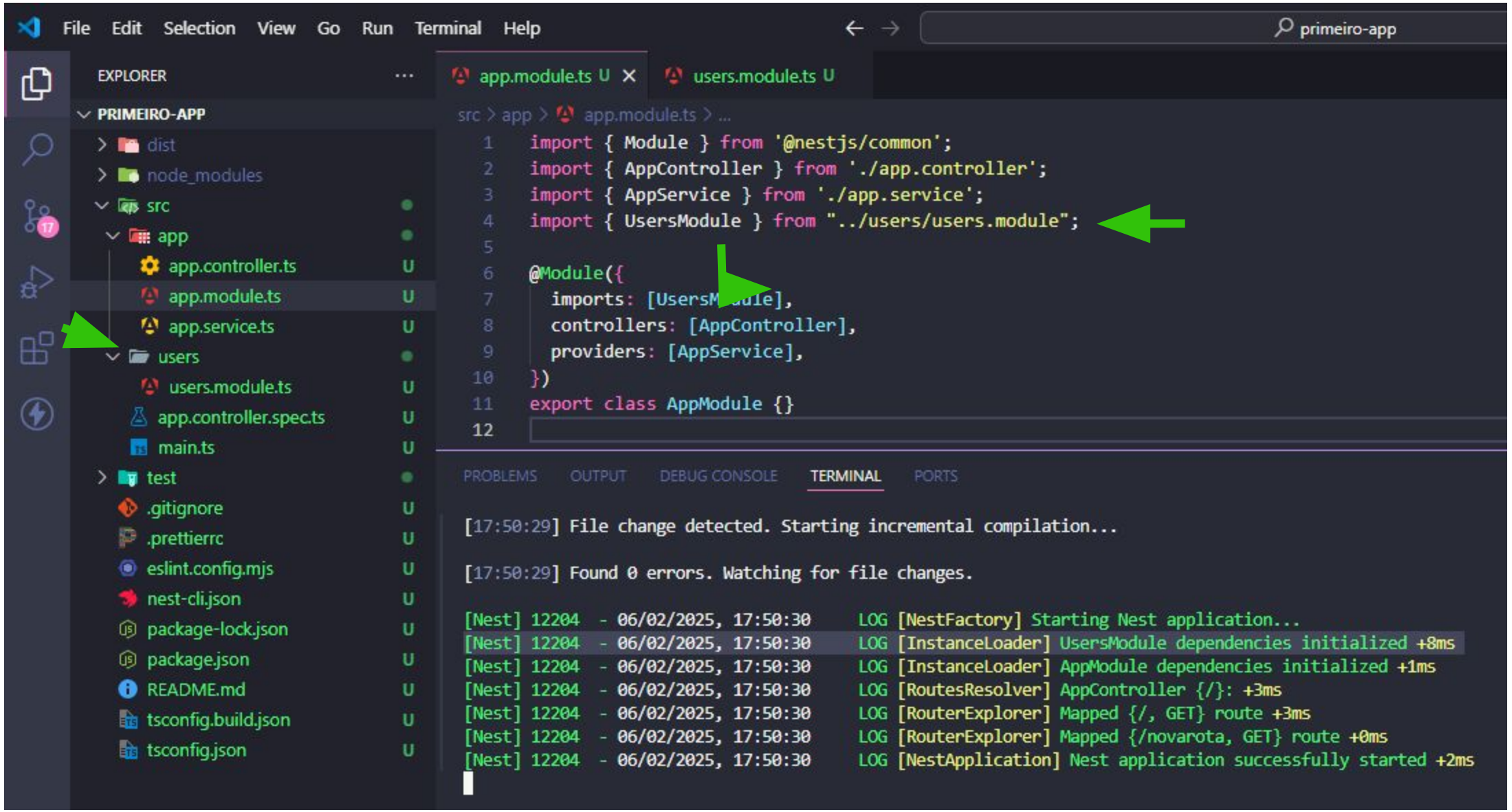
Excluir as setas verdes



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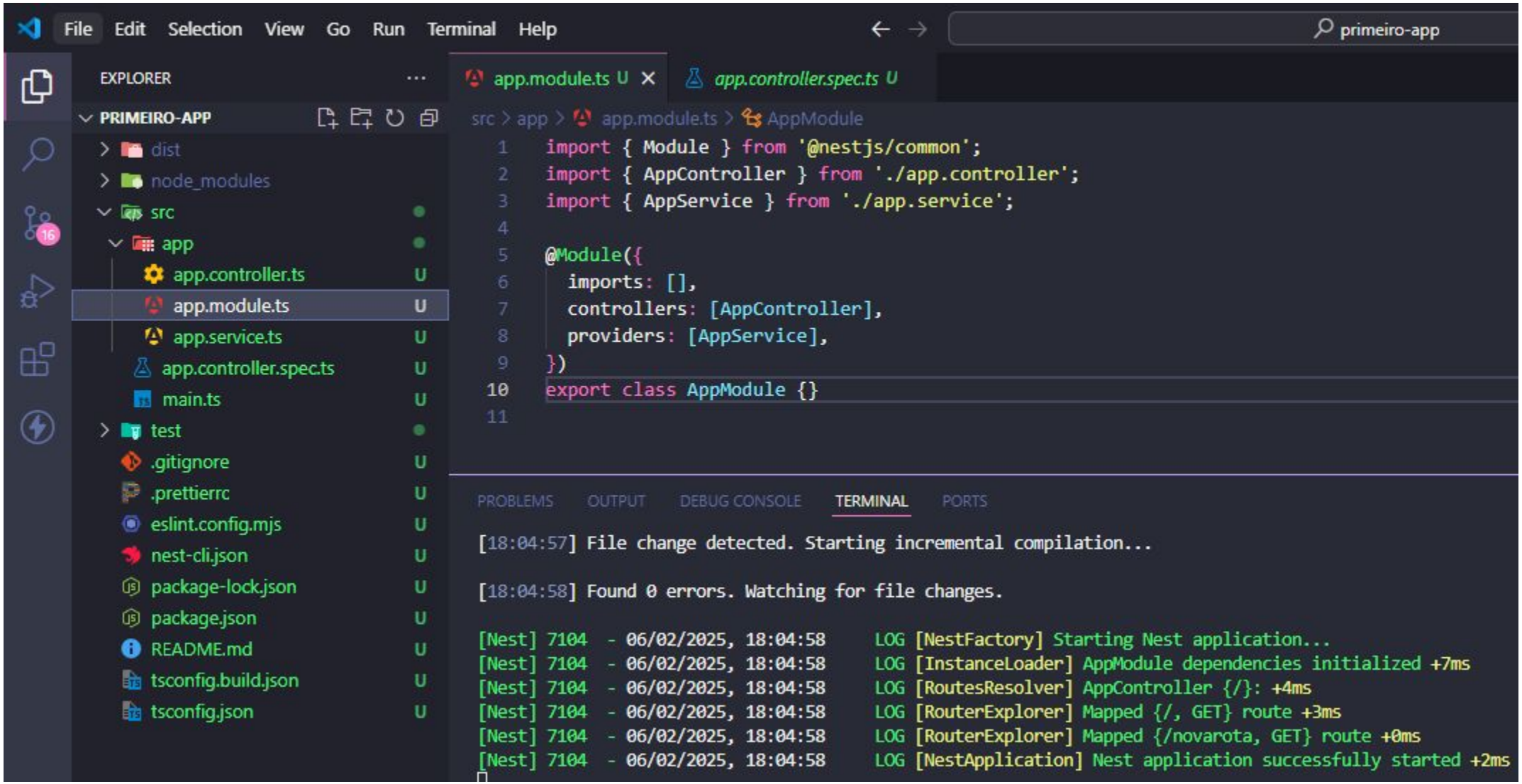
Criando um Módulo



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Criando um Módulo com CLI

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Criando um Módulo com CLI

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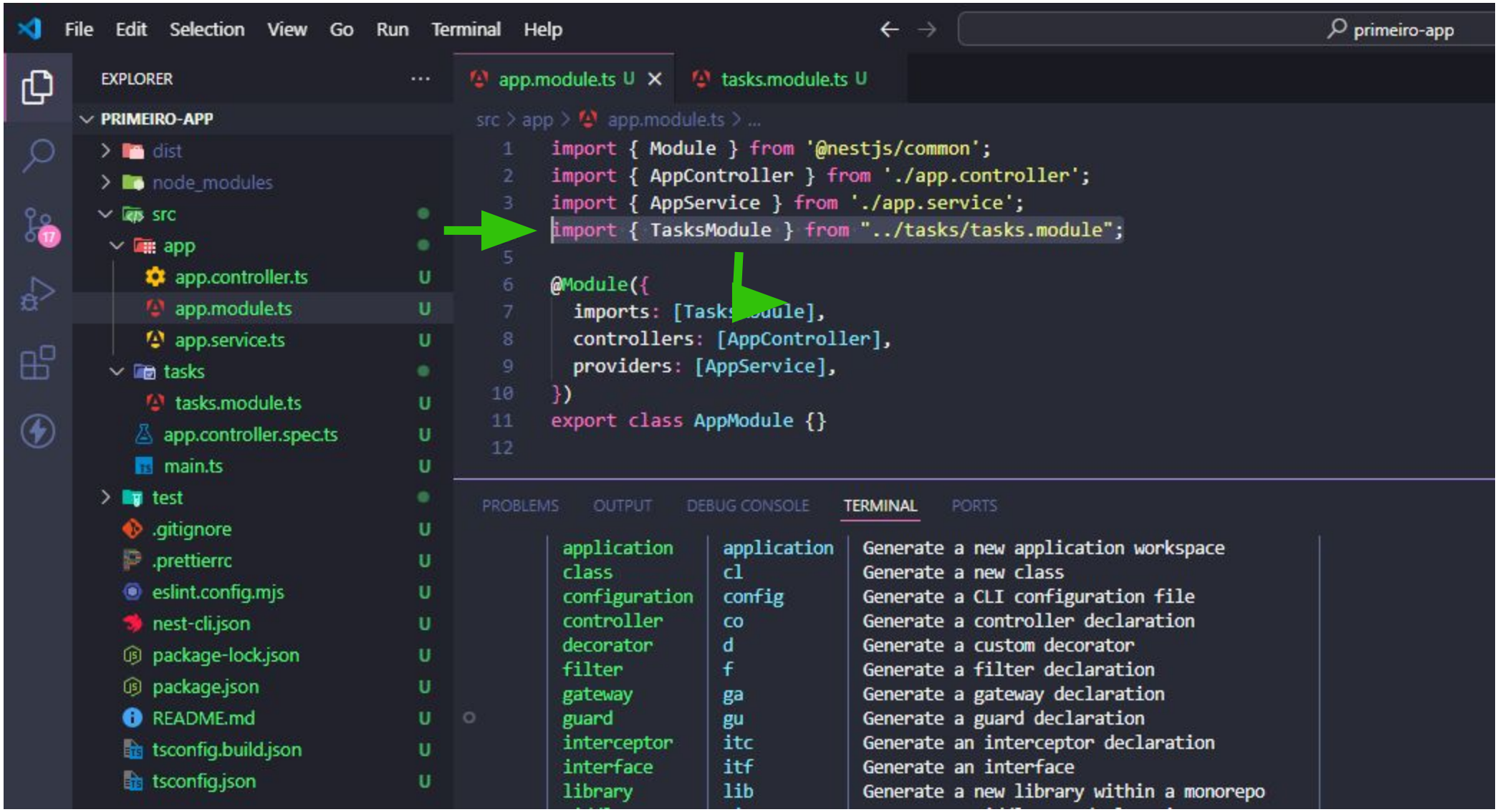

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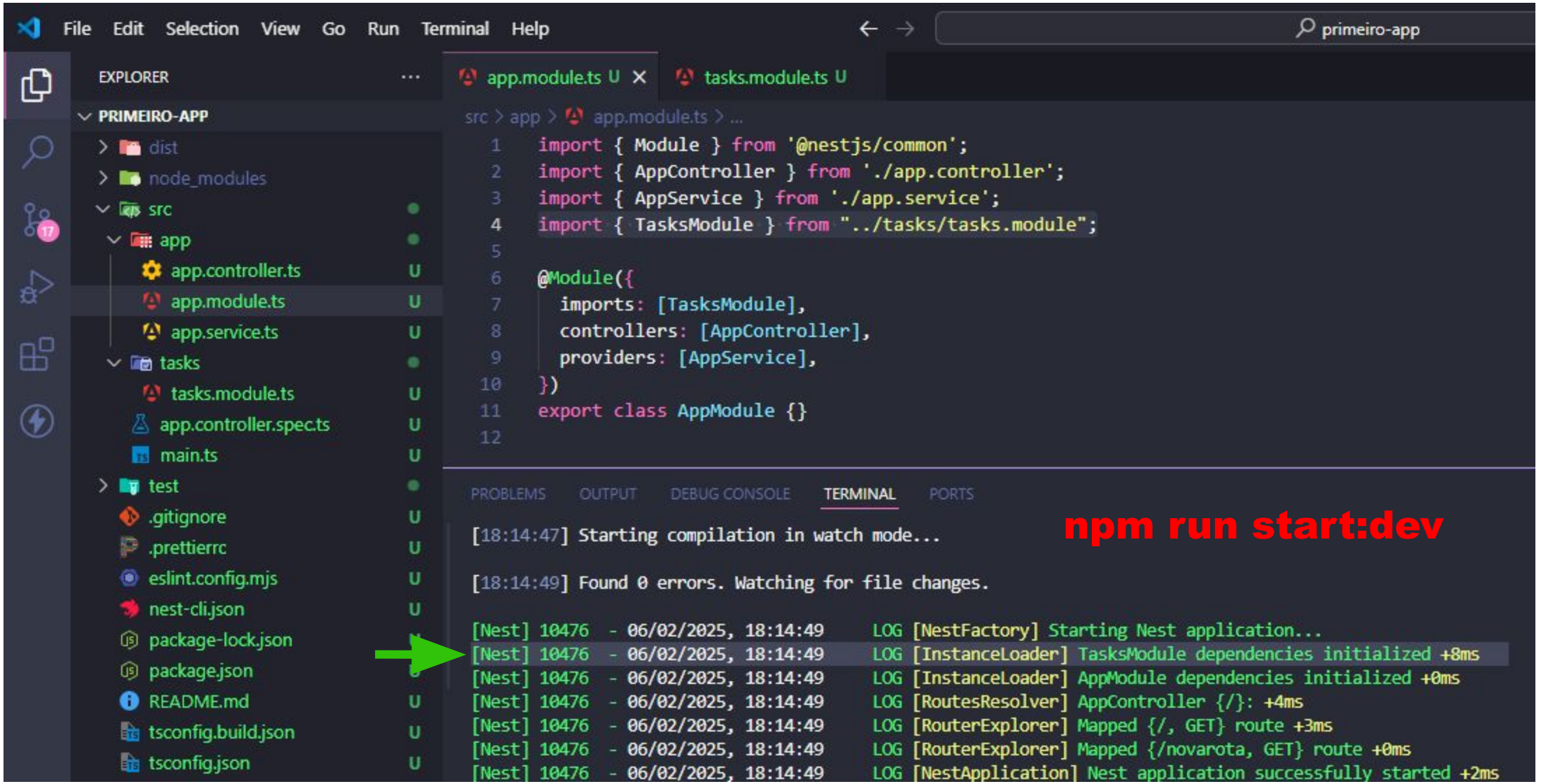

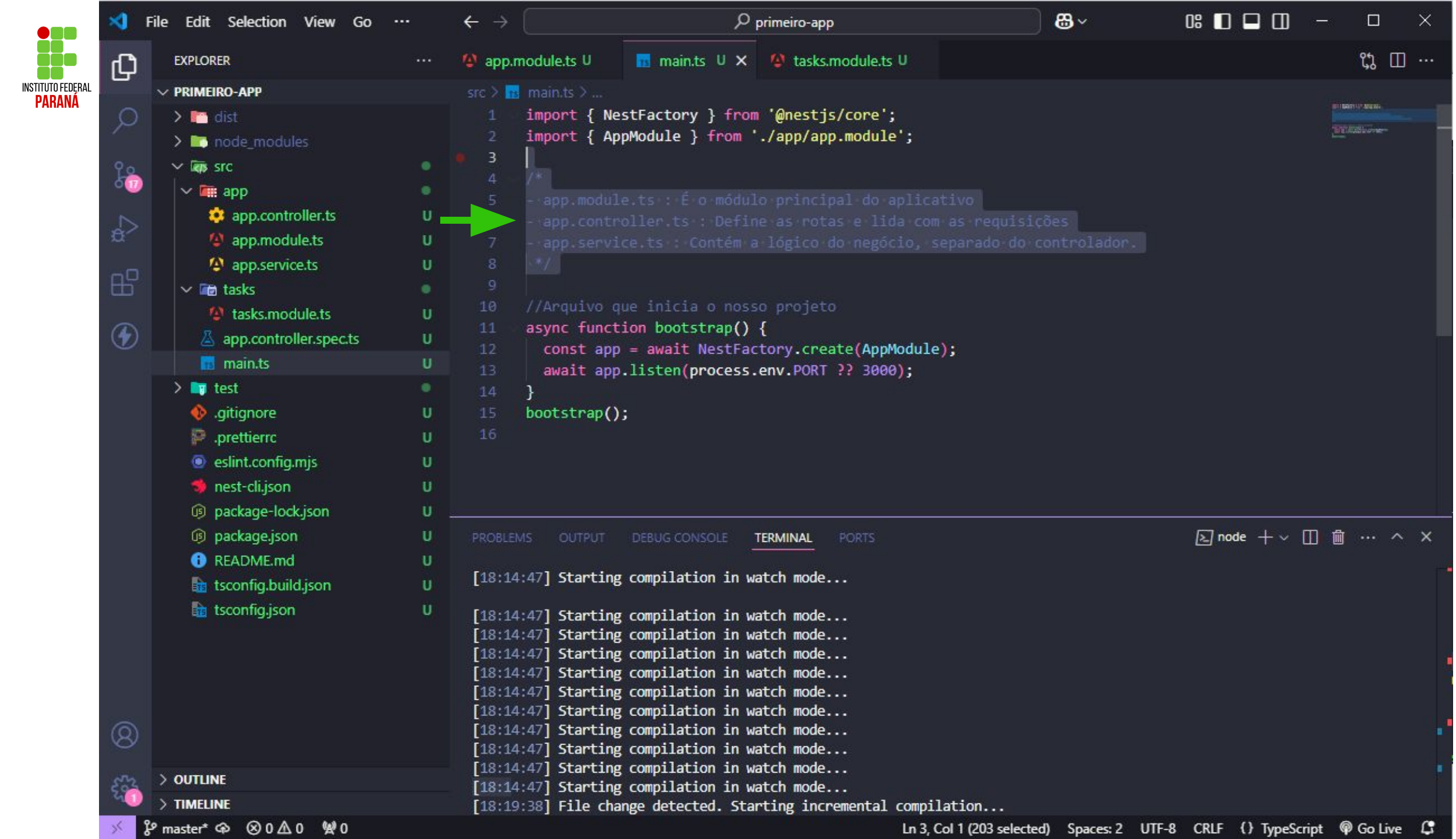
File Edit Selection View Go
primeiro-app
EXPLORER
app.module.ts U
main.ts U
tasks.module.ts U
PRIMEIRO-APP
dist
node_modules
src
app
app.controller.ts U
app.module.ts U
app.service.ts U
tasks
tasks.module.ts U
app.controller.spec.ts U
main.ts U
test
.gitignore U
.prettierrc U
eslint.config.mjs U
nest-cli.json U
package-lock.json U
package.json U
README.md U
tsconfig.build.json U
tsconfig.json U
src > main.ts > ...
1 import { NestFactory } from '@nestjs/core';
2 import { AppModule } from './app/app.module';
3
4 /*
5 - app.module.ts : É o módulo principal do aplicativo
6 - app.controller.ts : Define as rotas e lida com as requisições
7 - app.service.ts : Contém a lógico do negócio, separado do controlador.
8 */
9
10 //Arquivo que inicia o nosso projeto
11 async function bootstrap() {
12 const app = await NestFactory.create(AppModule);
13 await app.listen(process.env.PORT ?? 3000);
14 }
15 bootstrap();
16
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
node
[18:14:47] Starting compilation in watch mode...
[18:14:47] Starting compilation in watch mode...
[18:14:47] Starting compilation in watch mode...
[18:14:47] Starting compilation in watch mode...
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[18:14:47] Starting compilation in watch mode...
[18:14:47] Starting compilation in watch mode...
[18:14:47] Starting compilation in watch mode...
[18:19:38] File change detected. Starting incremental compilation...
OUTLINE
TIMELINE
master* 0 0 0
Ln 3, Col 1 (203 selected) Spaces: 2 UTF-8 CRLF {} TypeScript Go Live

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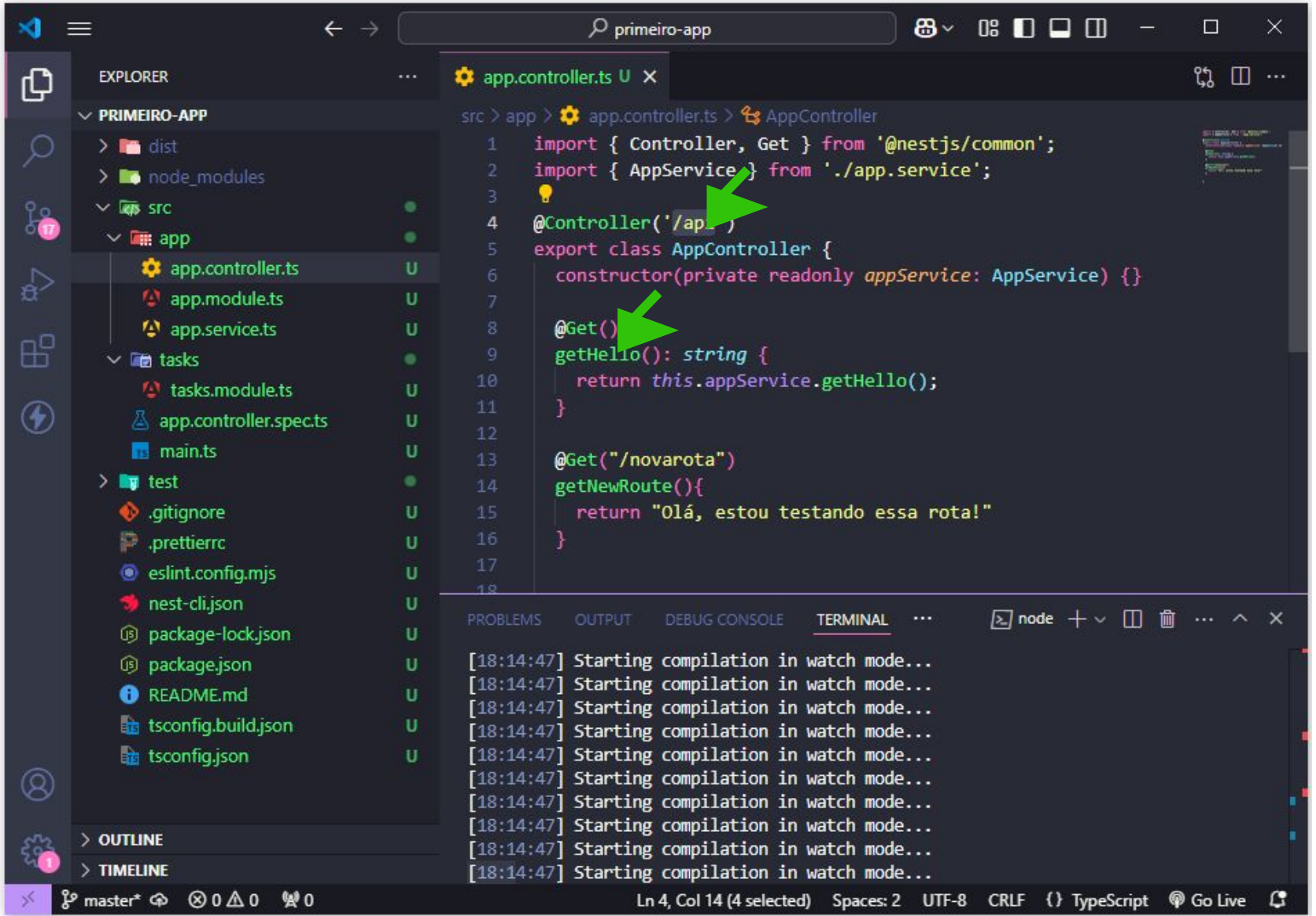
Lidando com Controller



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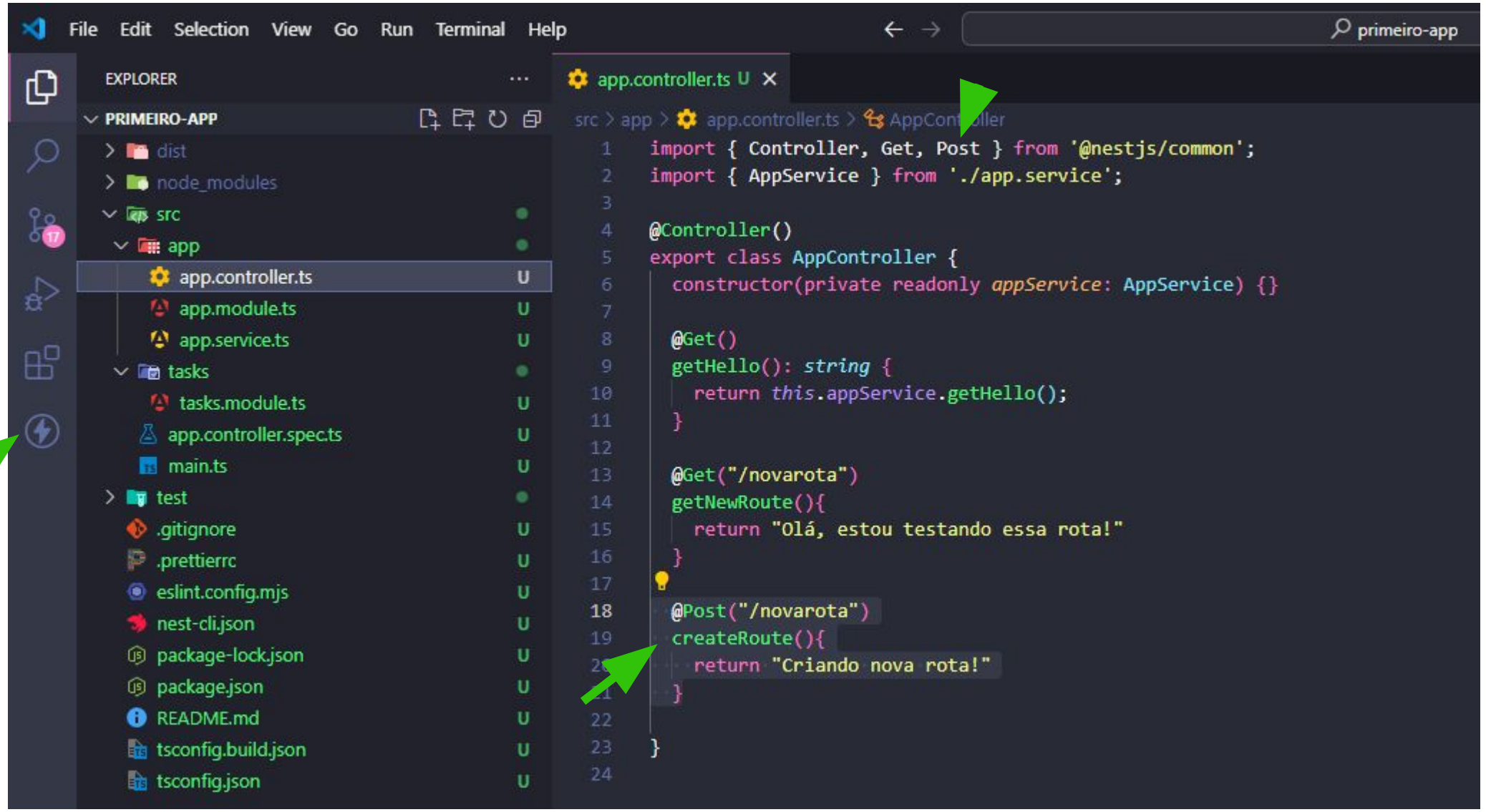
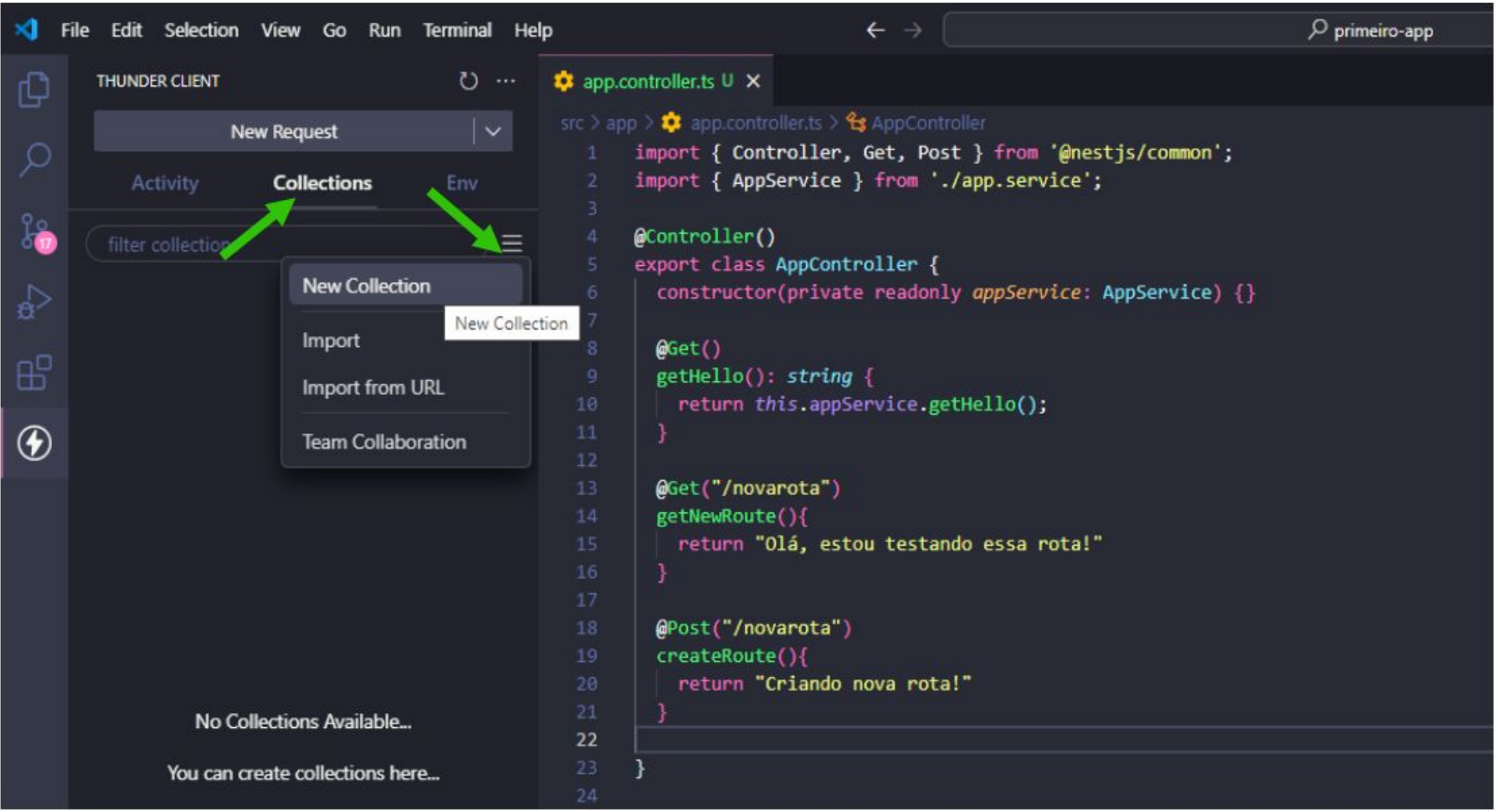
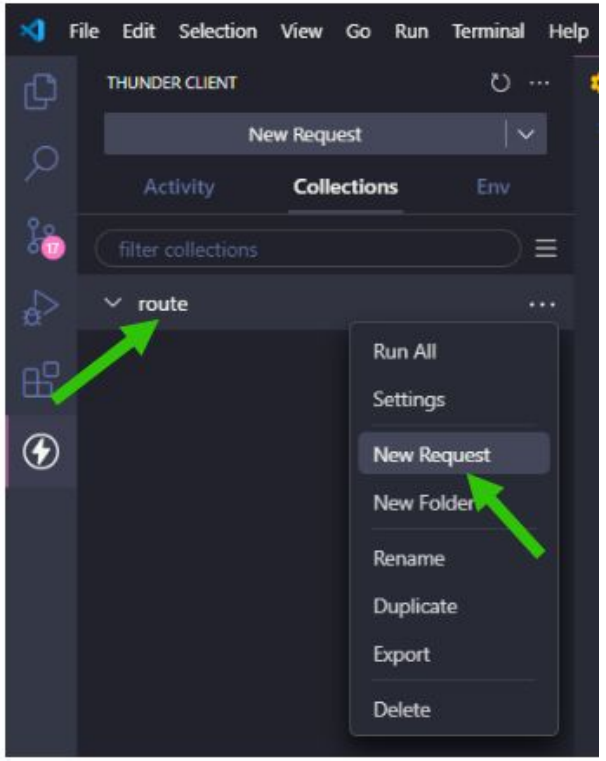
Lidando com Controller

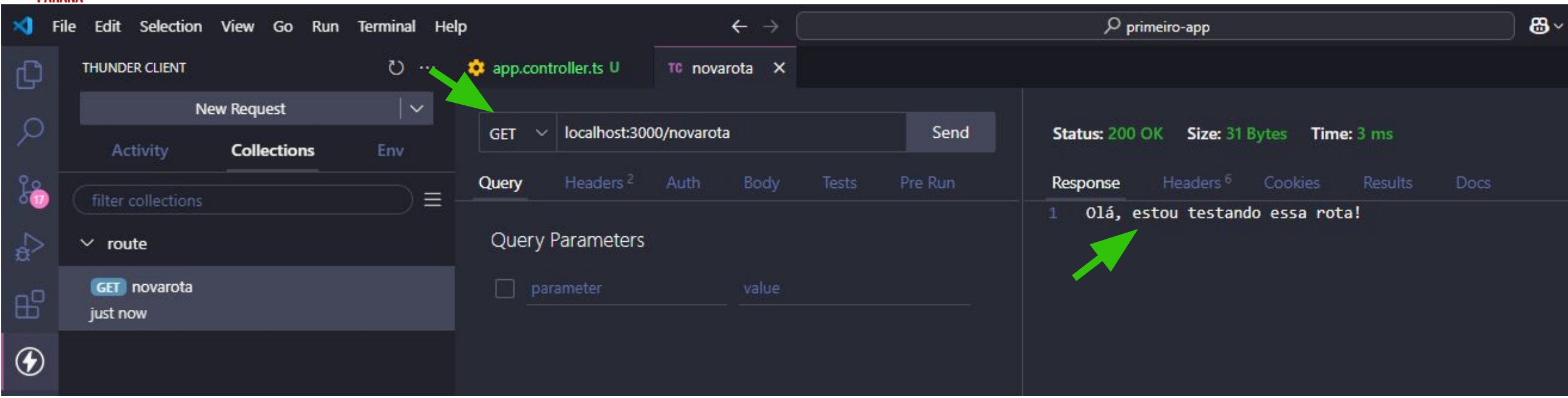


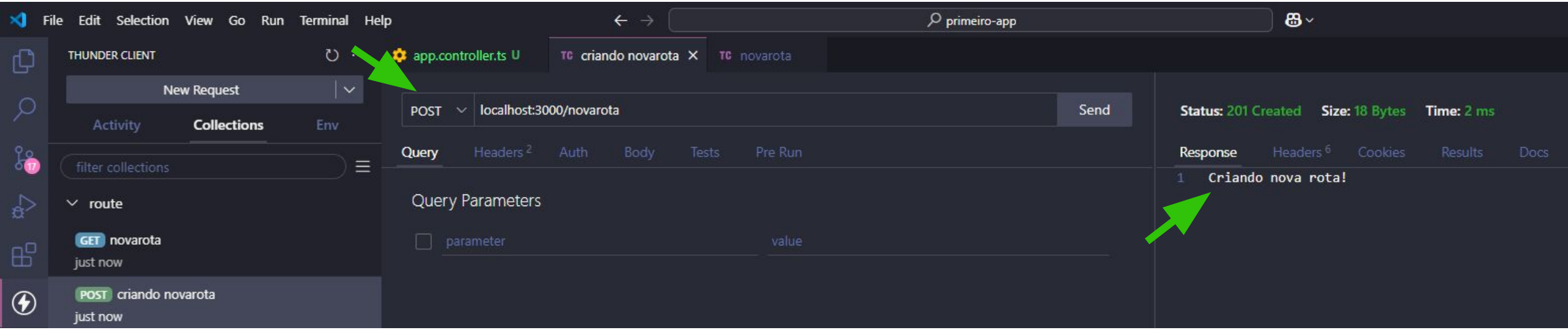
Lidando com Controller





Lidando com Controller





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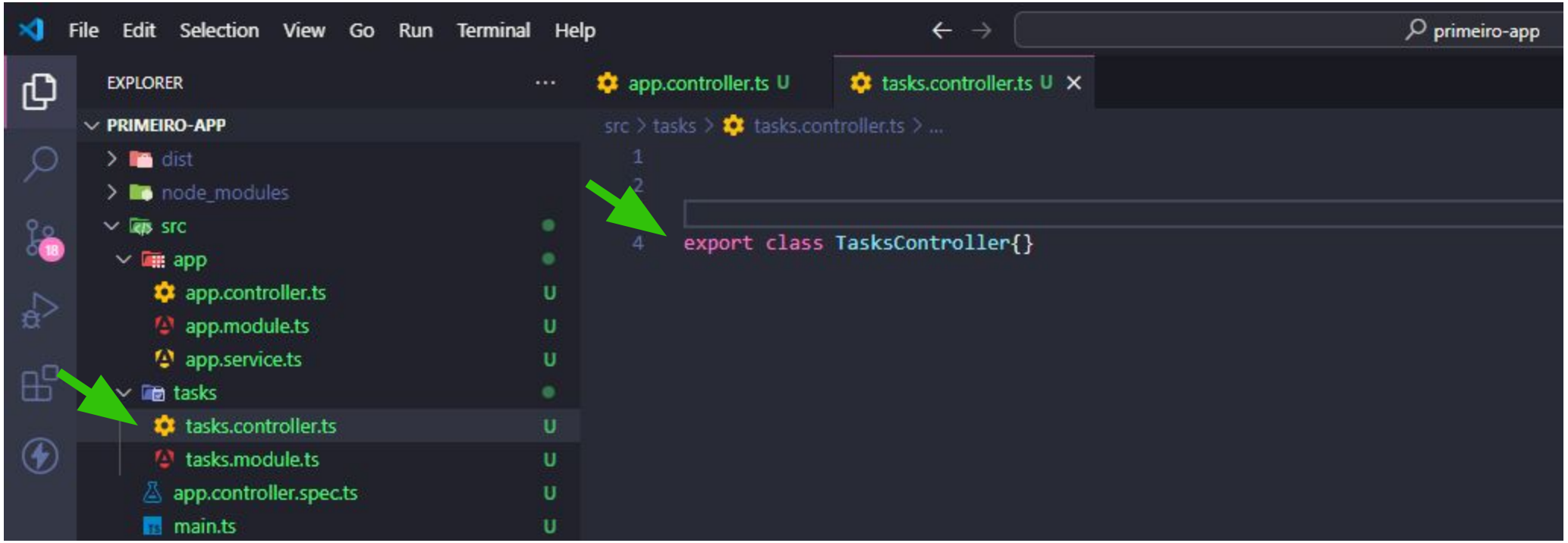
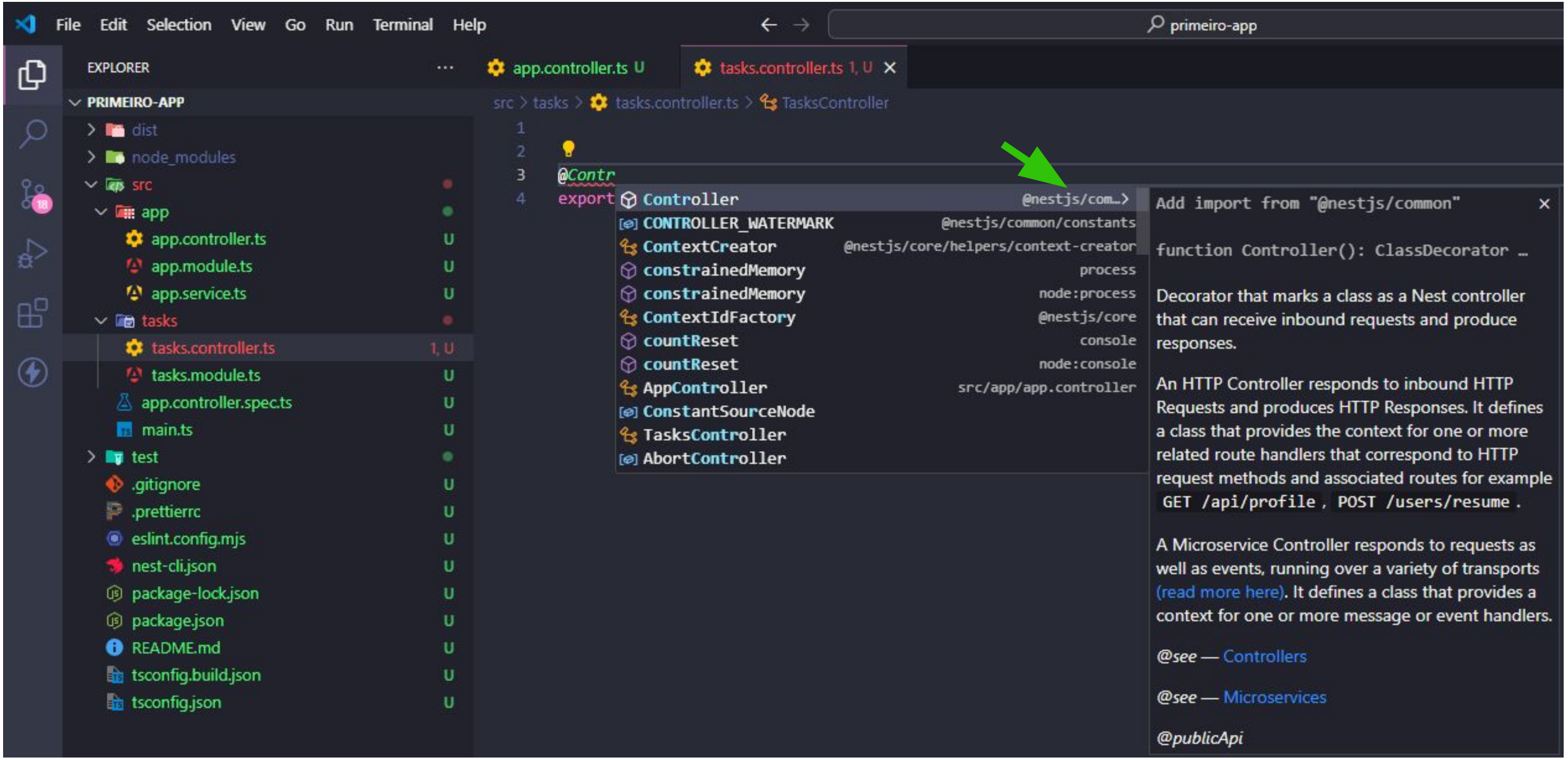
Gerando Controller



Gerando Controller



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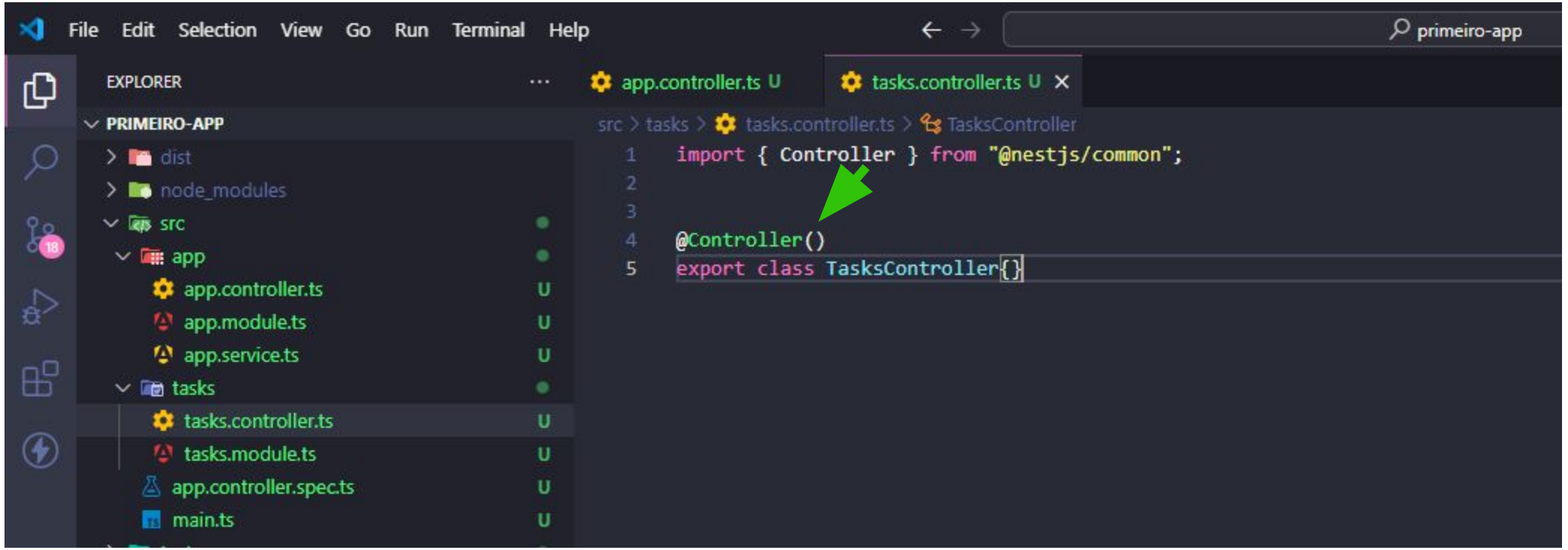
Gerando Controller



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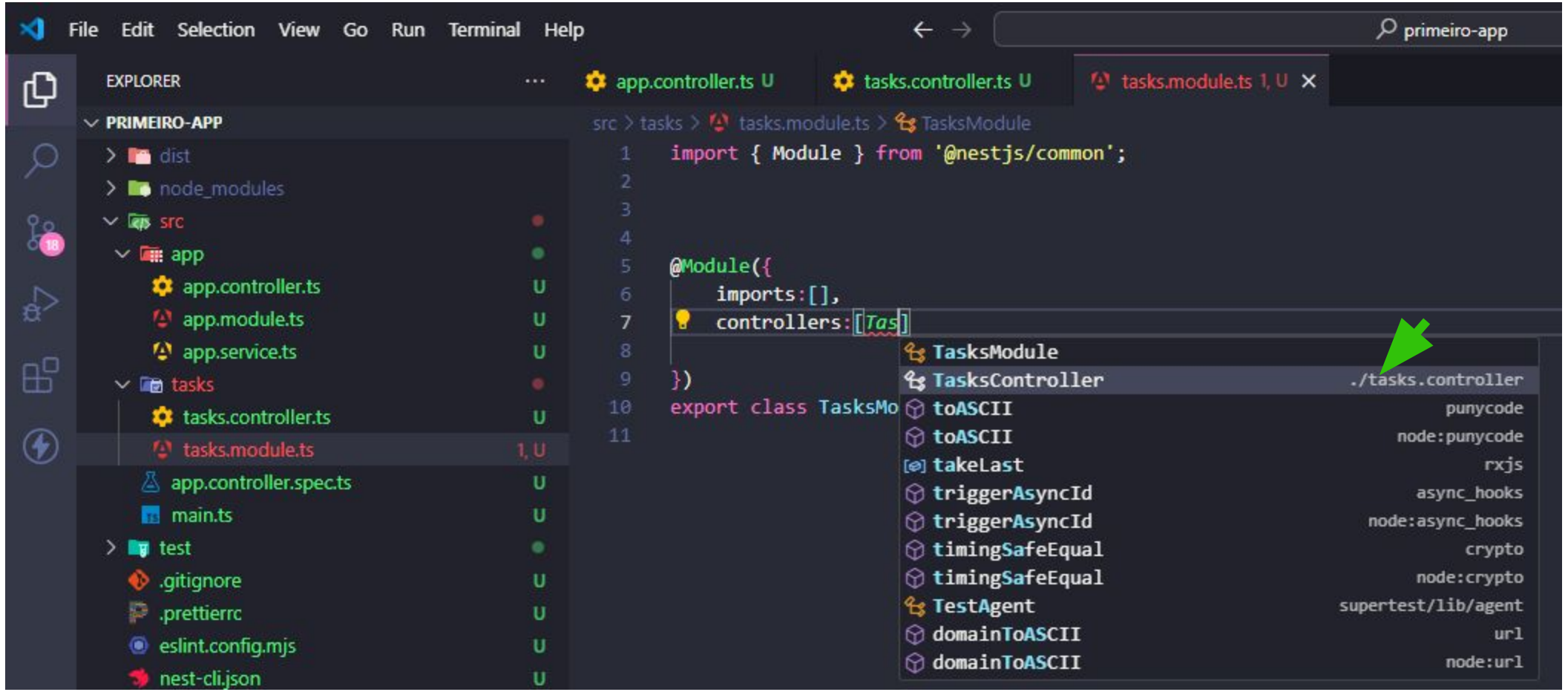
Gerando Controller



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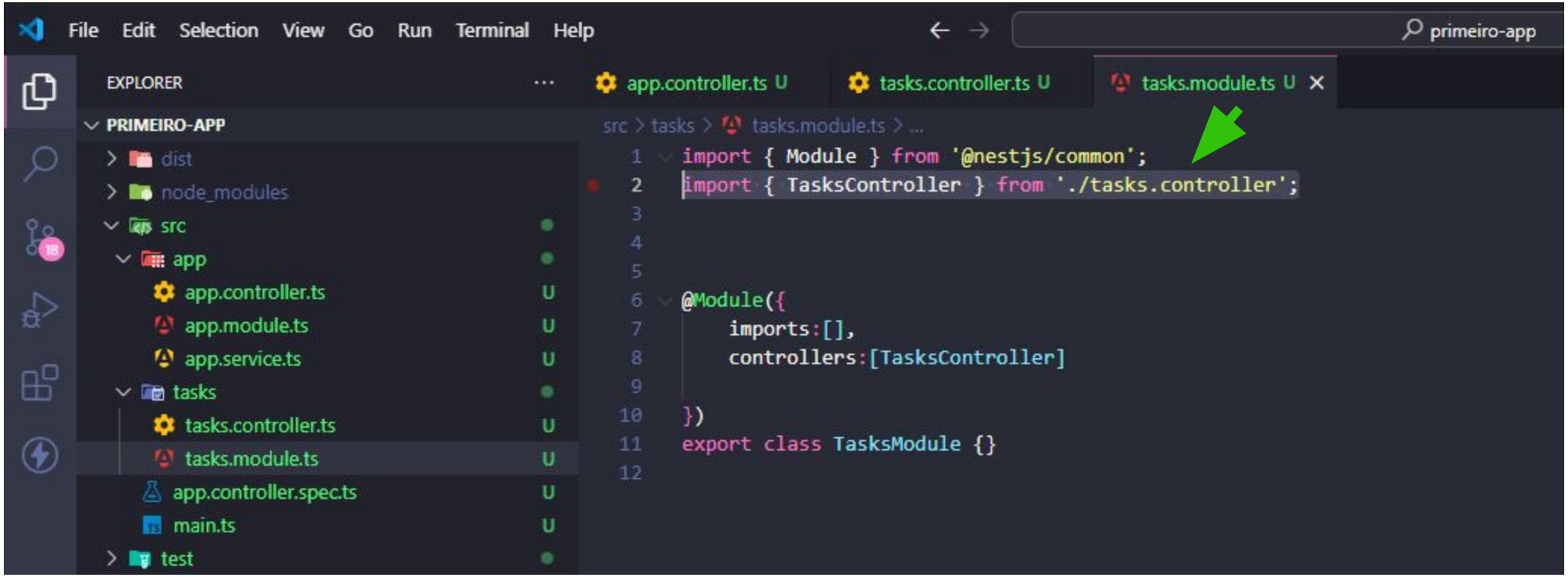
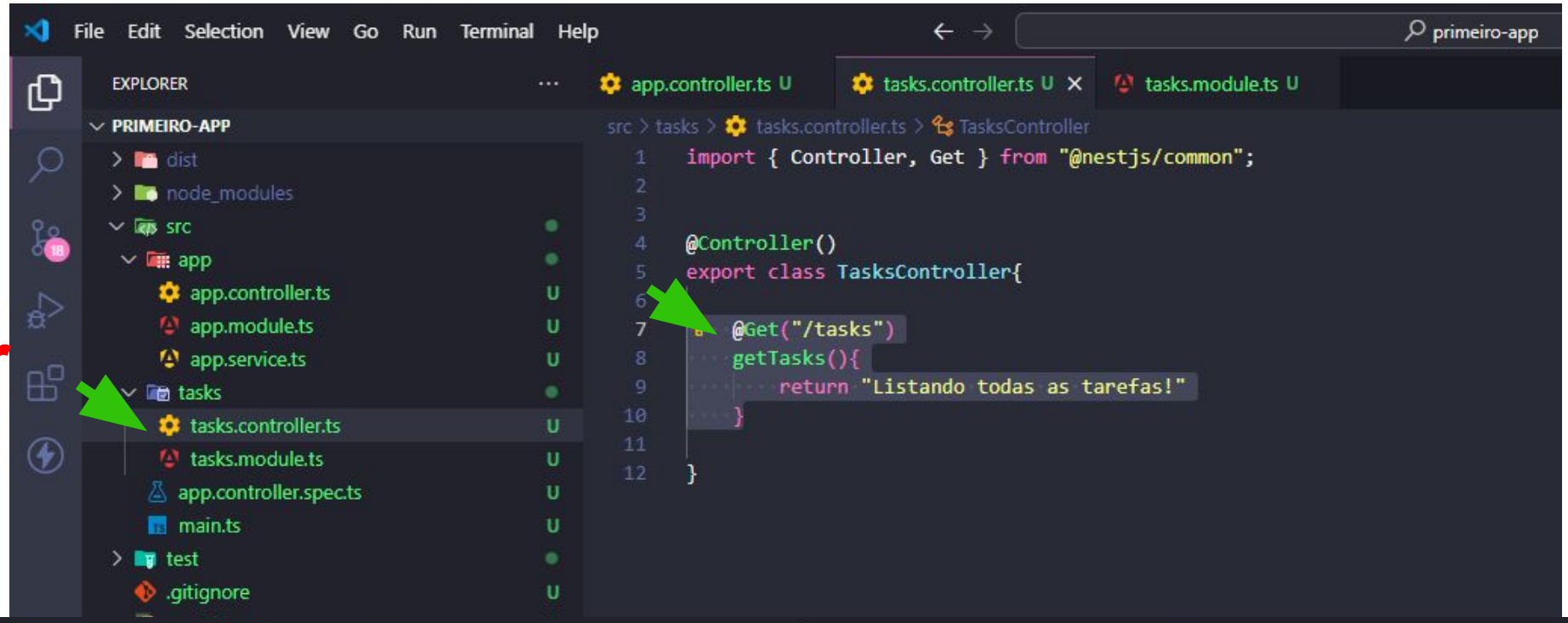
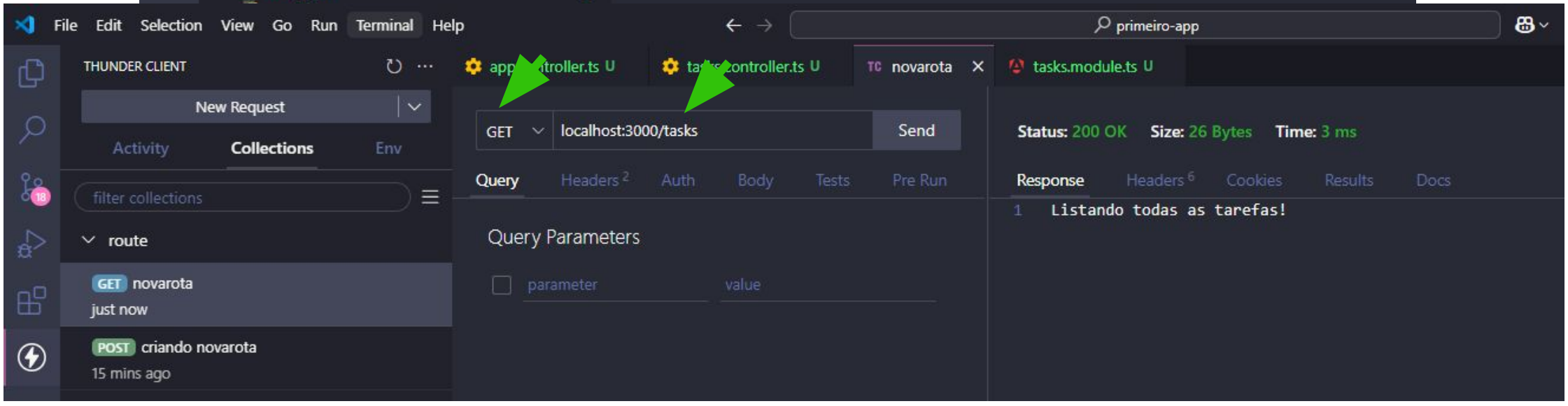
Gerando Controller



Gerando Controller

Deletar





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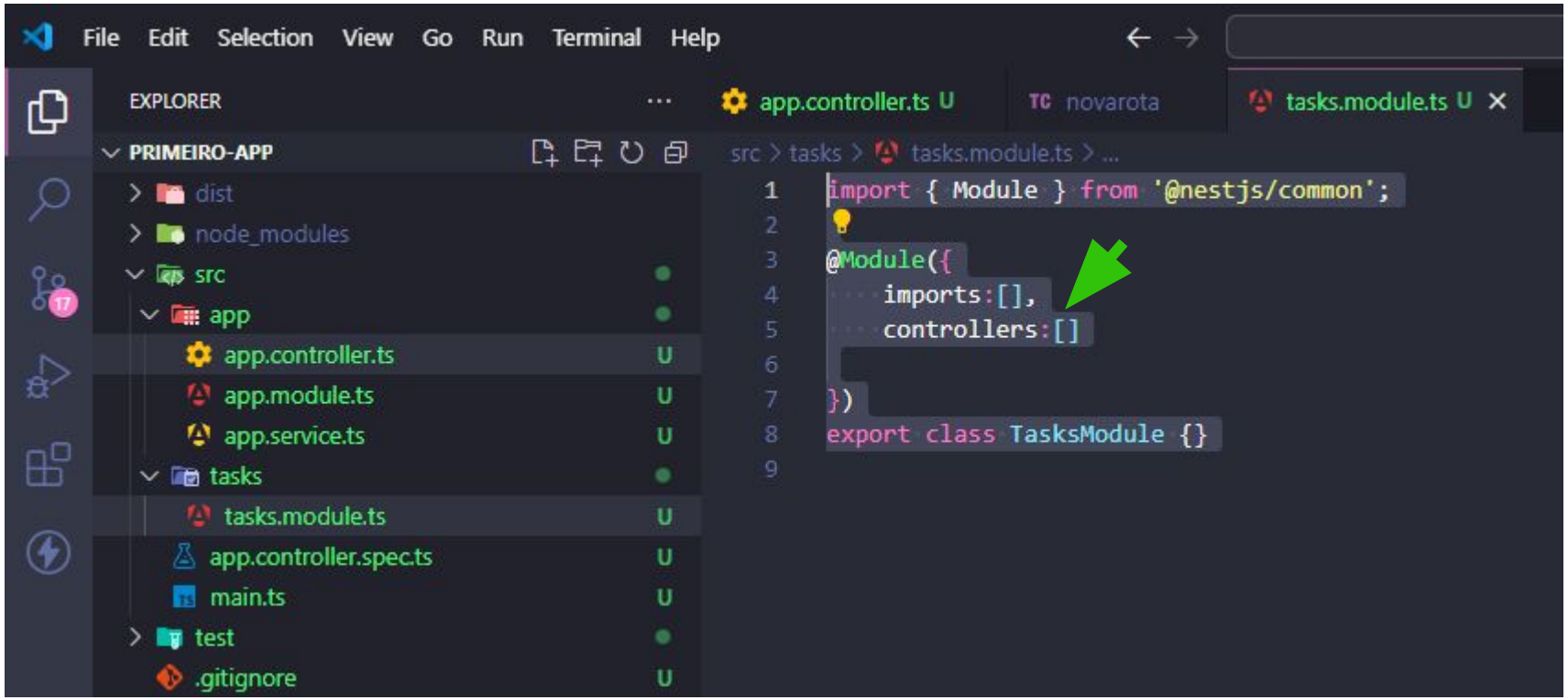
Gerando Controller com CLI



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Gerando Controller com CLI

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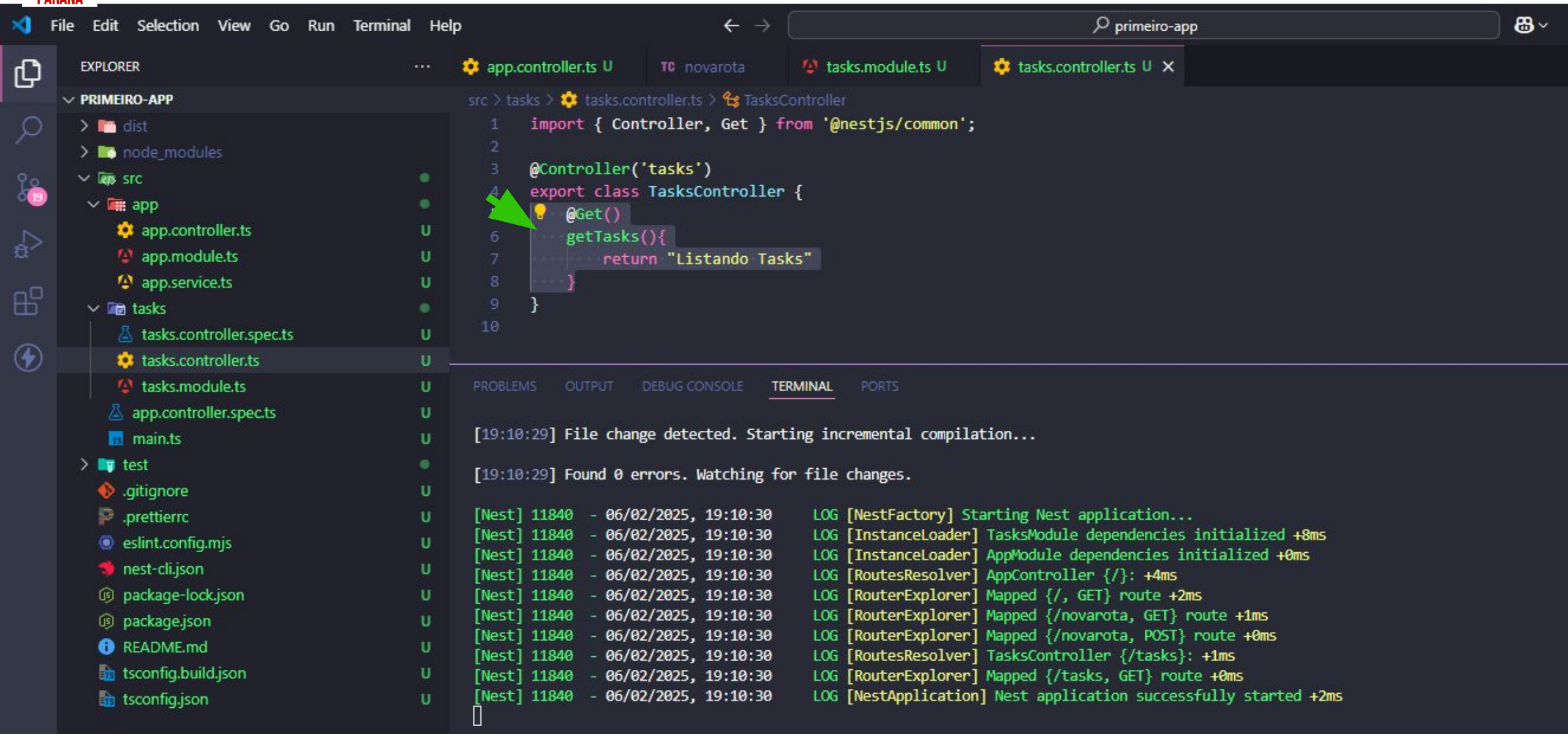
Gerando Controller com CLI

Gerando Controller com CLI



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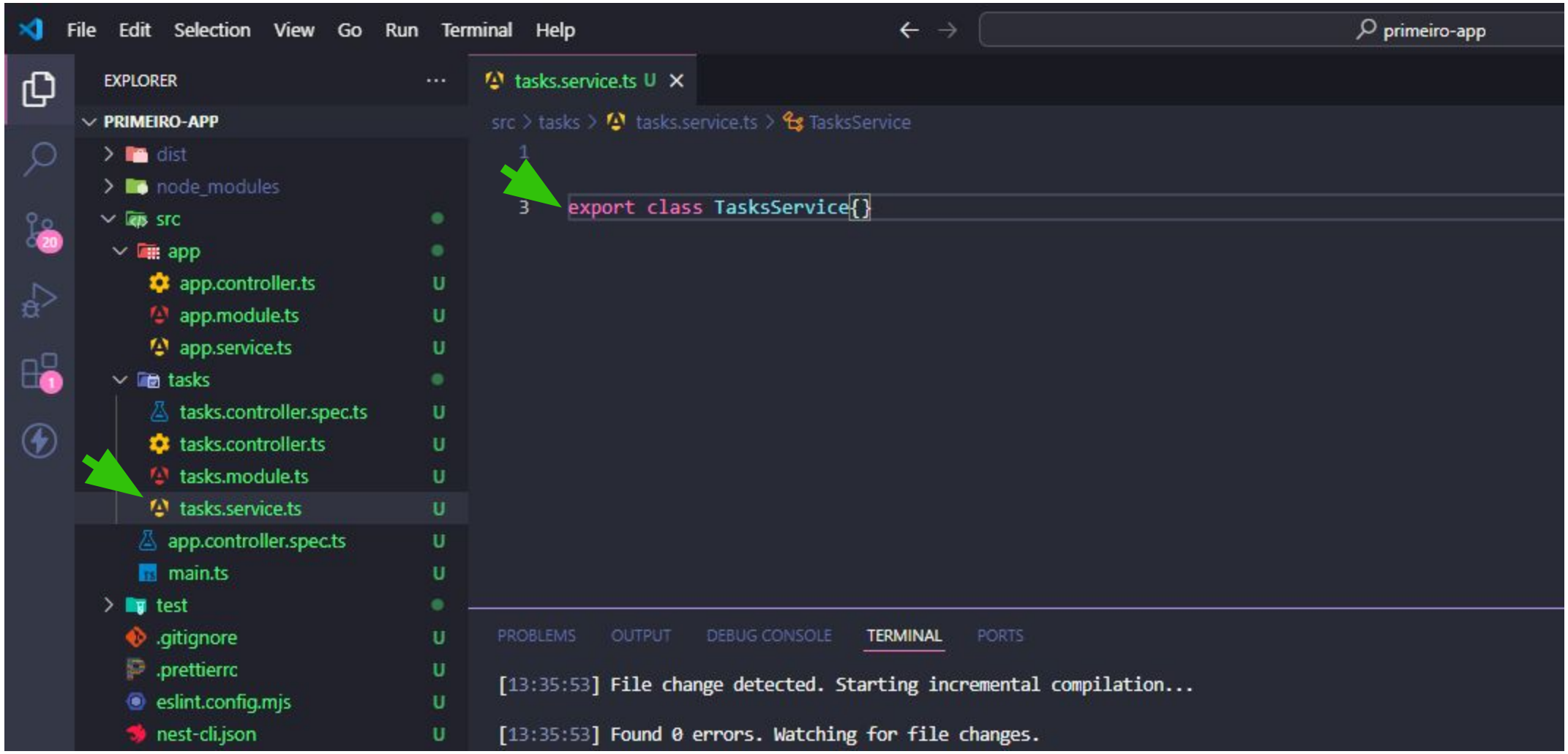
Gerando Service / Provider



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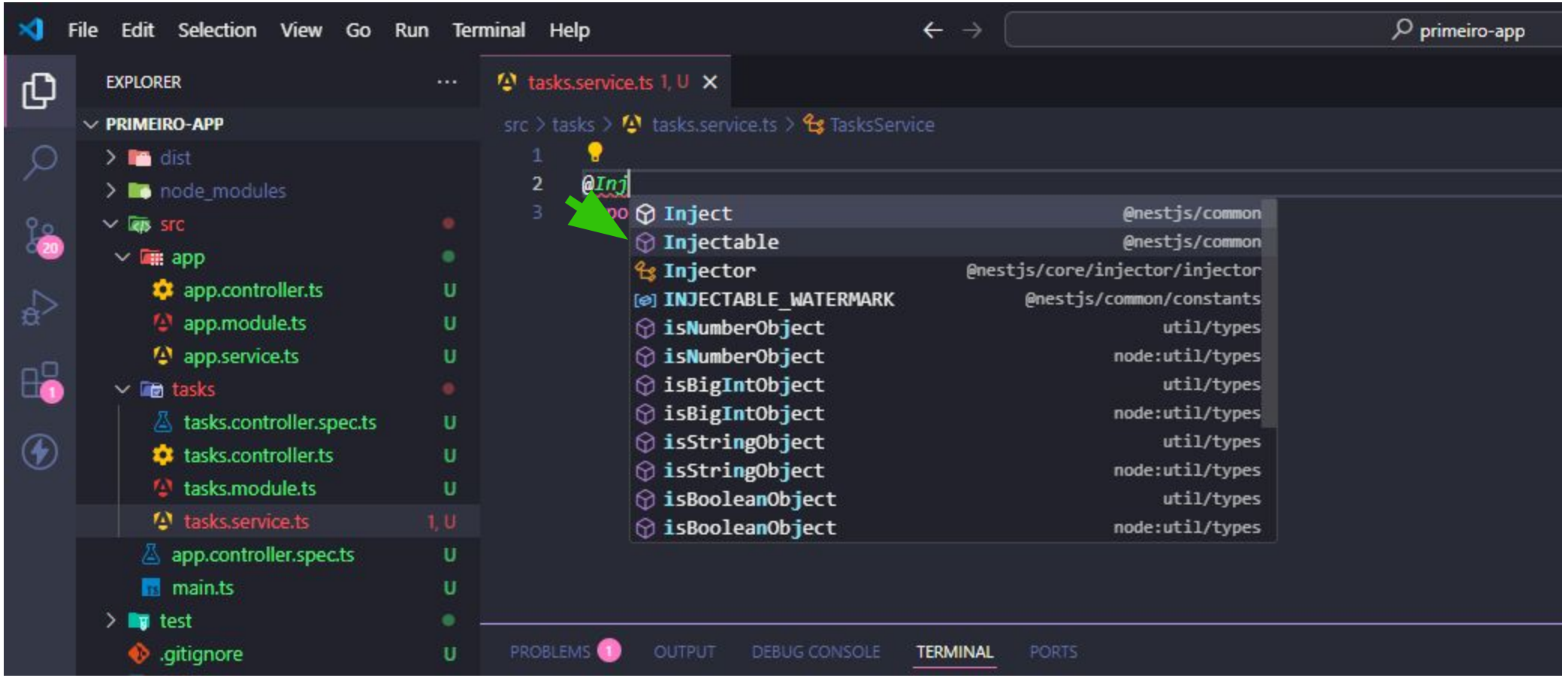
Gerando Service / Provider



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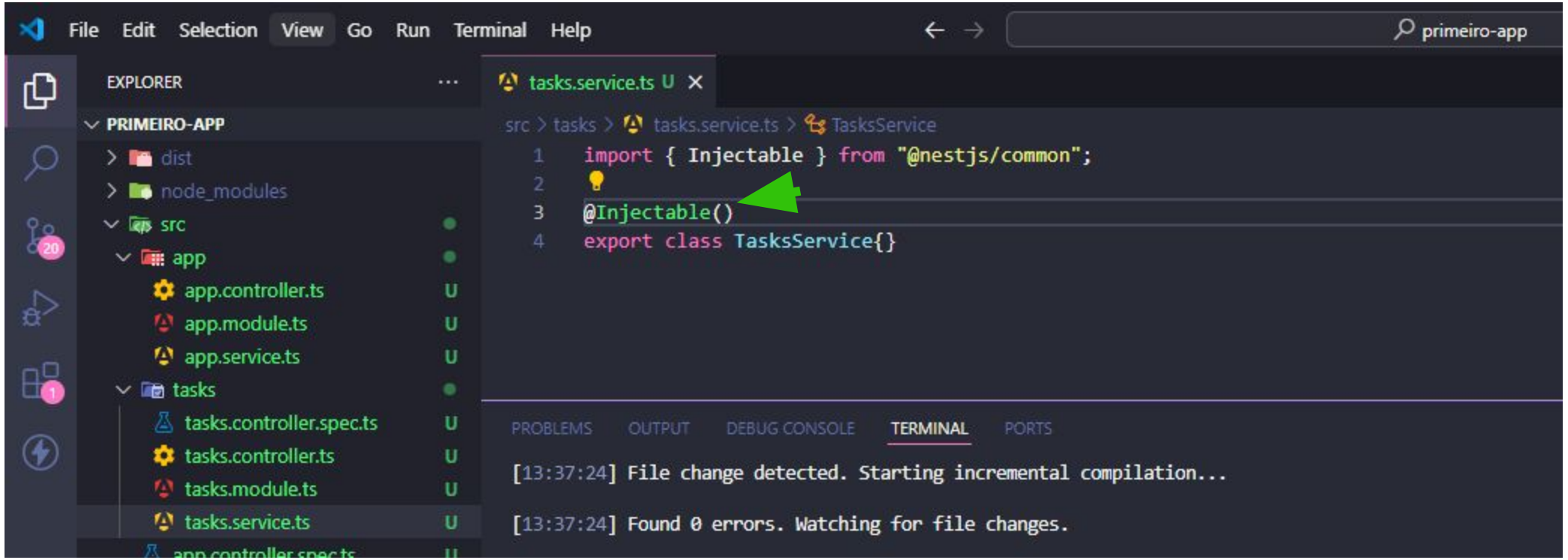
Gerando Service / Provider



Gerando Service / Provider

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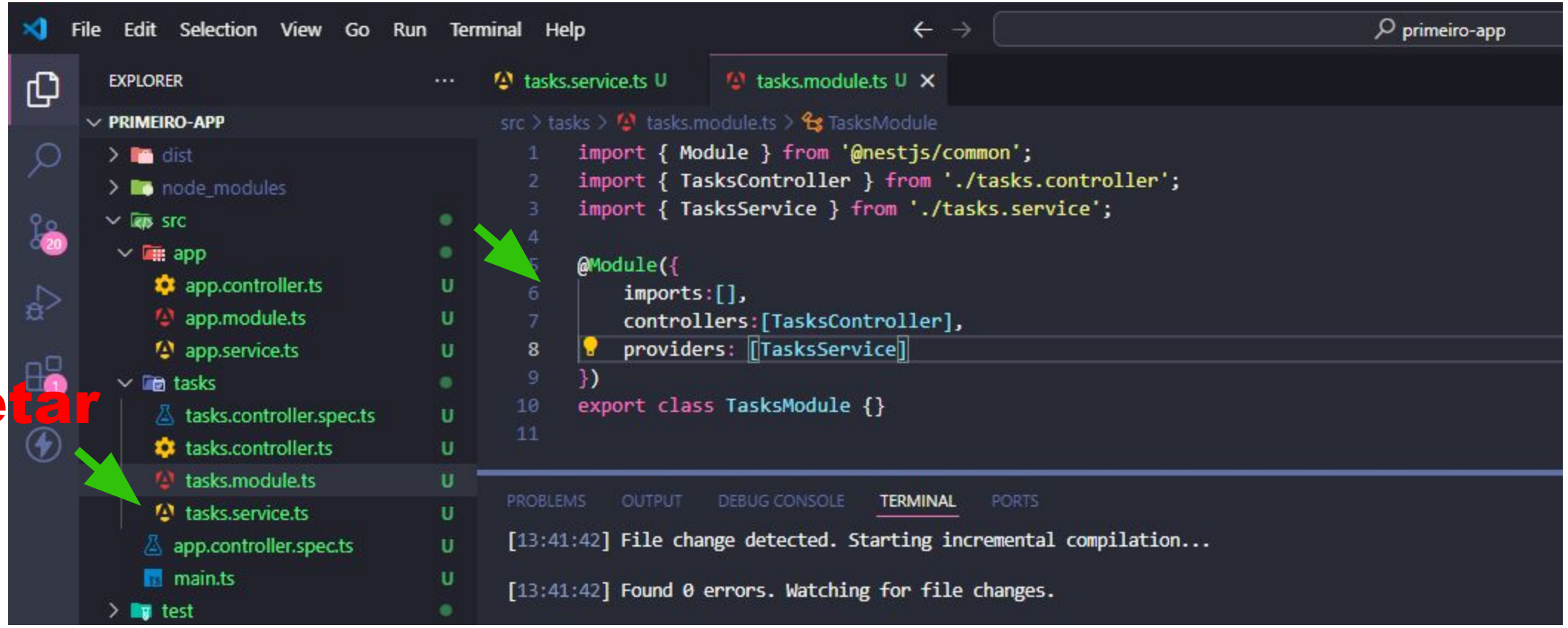

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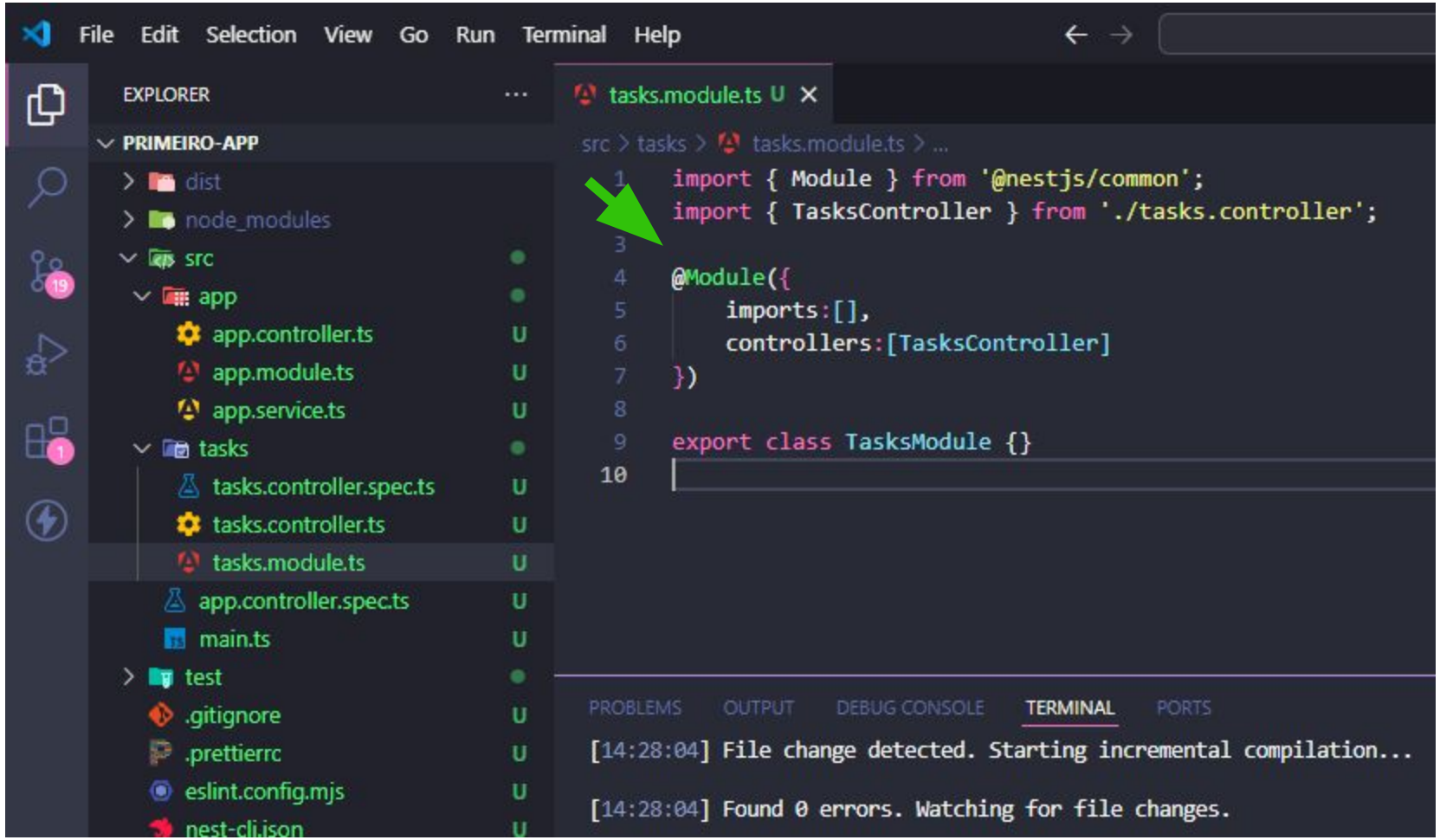
Gerando Service / Provider



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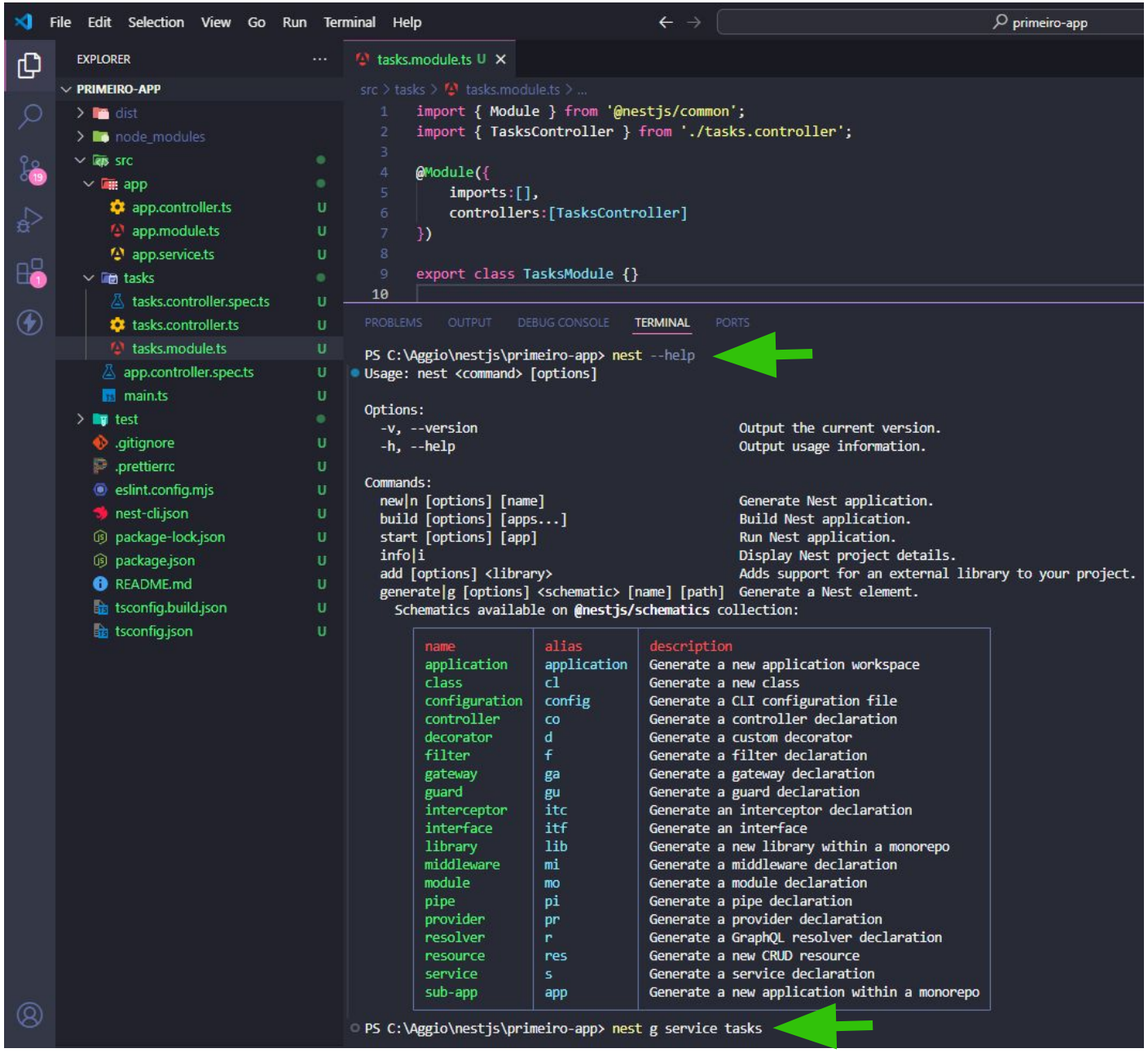
Gerando Service / Provider



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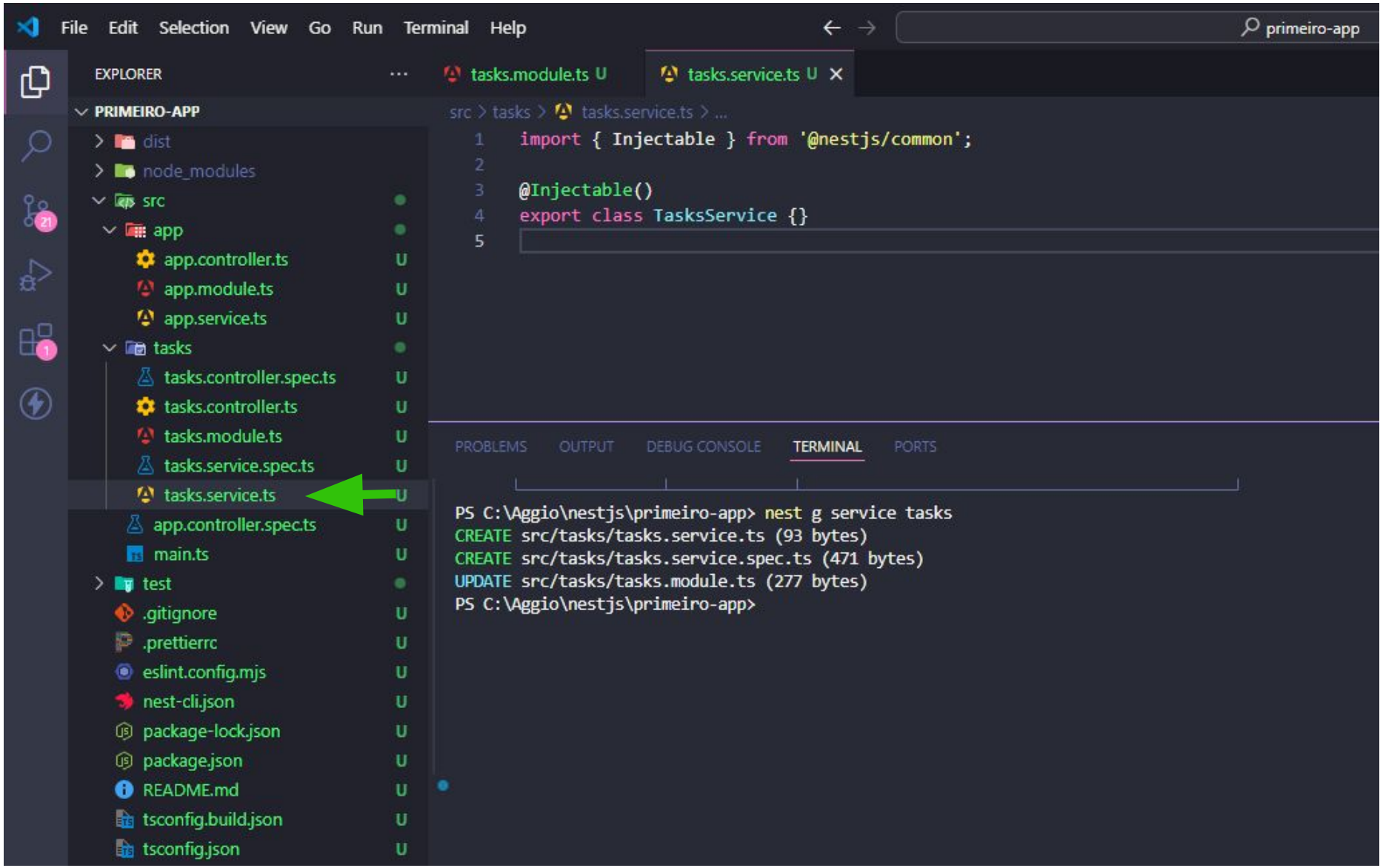
Gerando Service / Provider



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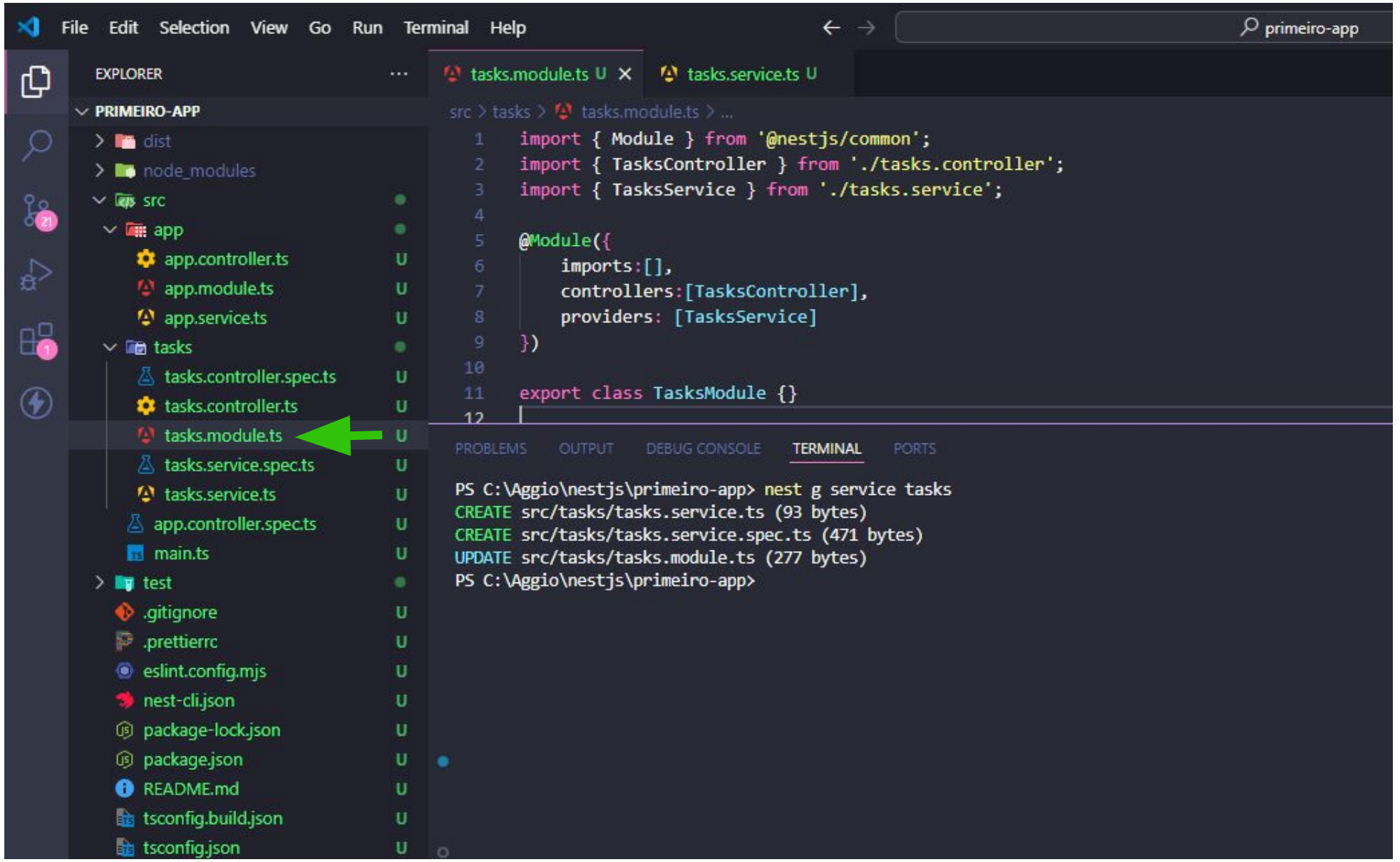
Gerando Service / Provider



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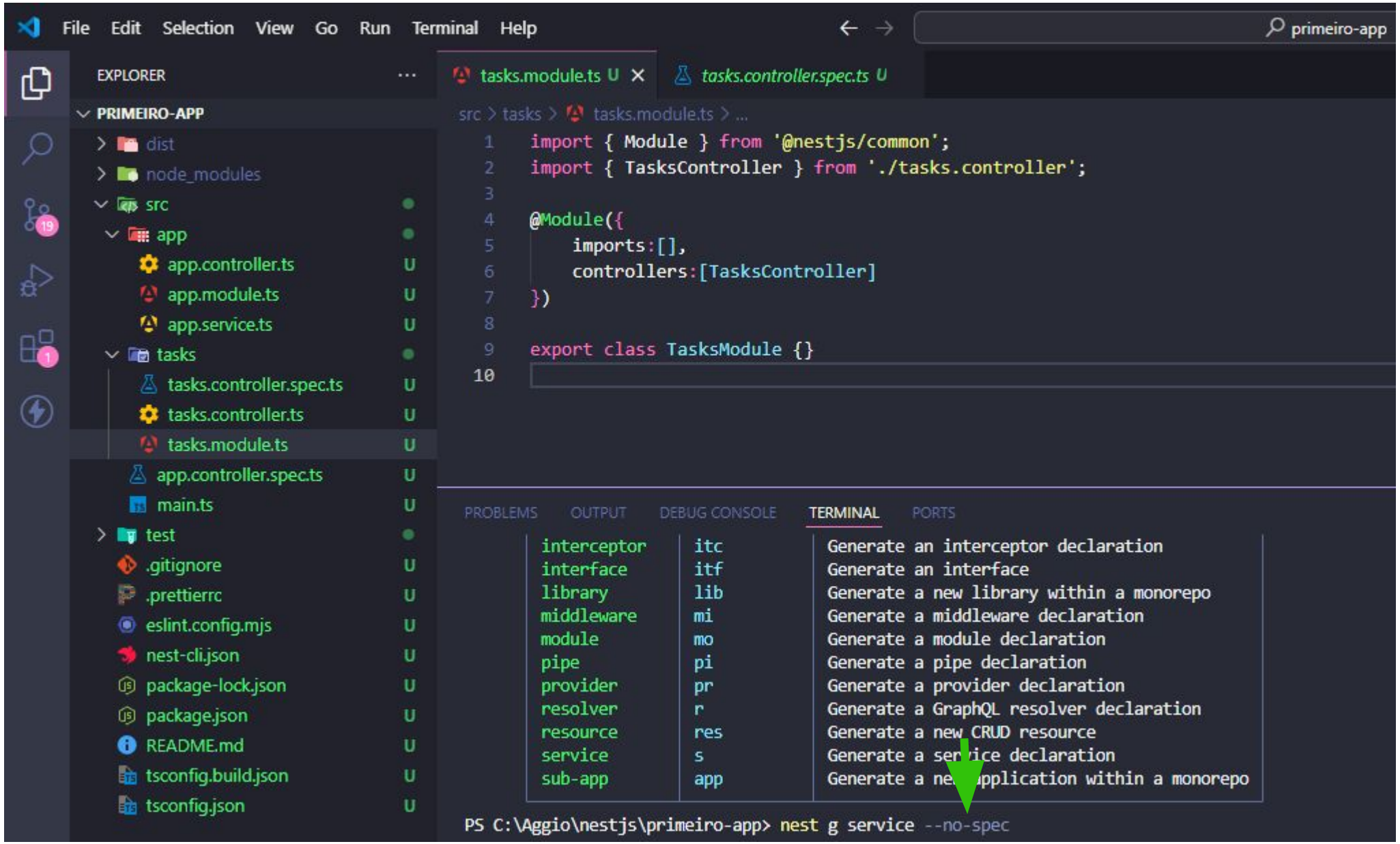
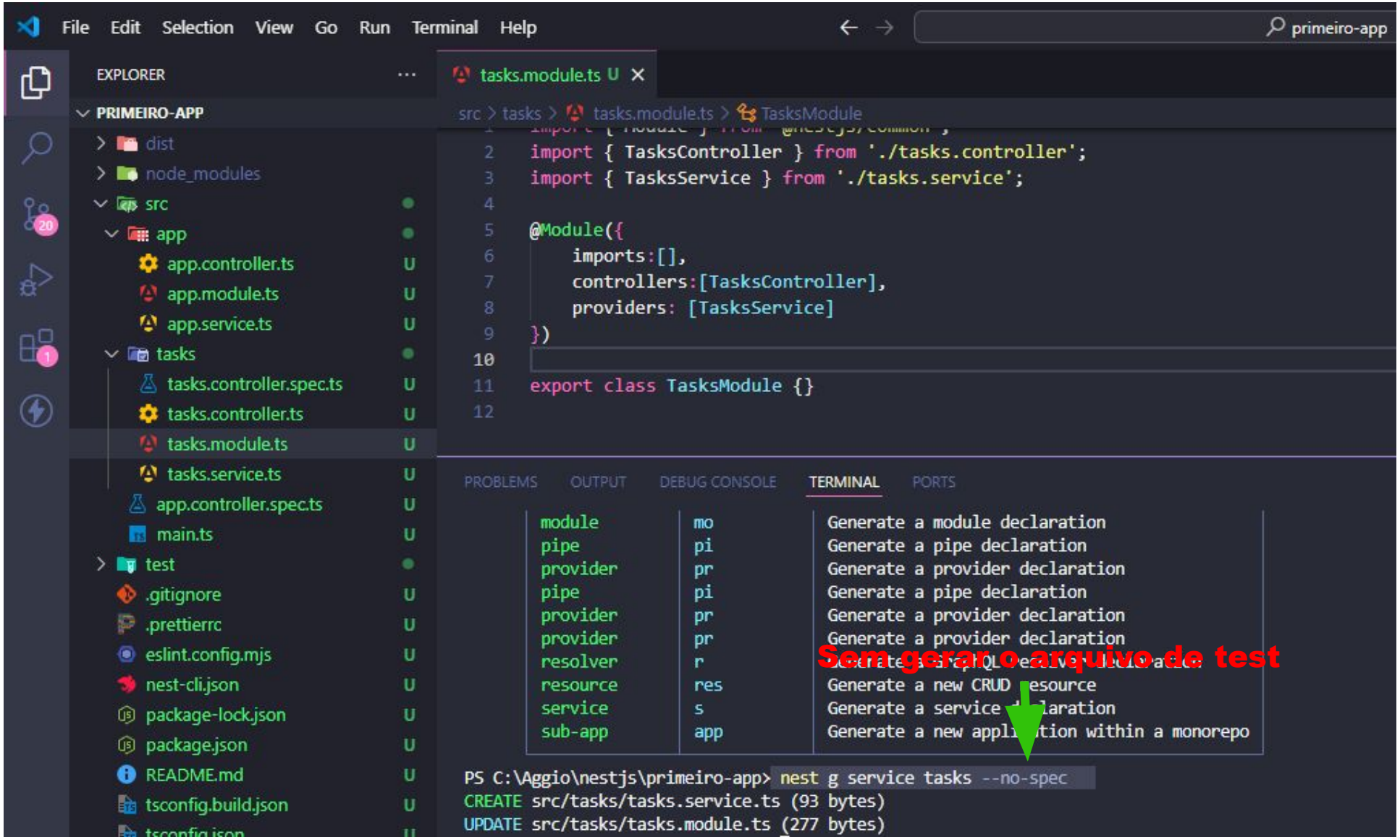
Gerando Service / Provider



Gerando Service / Provider



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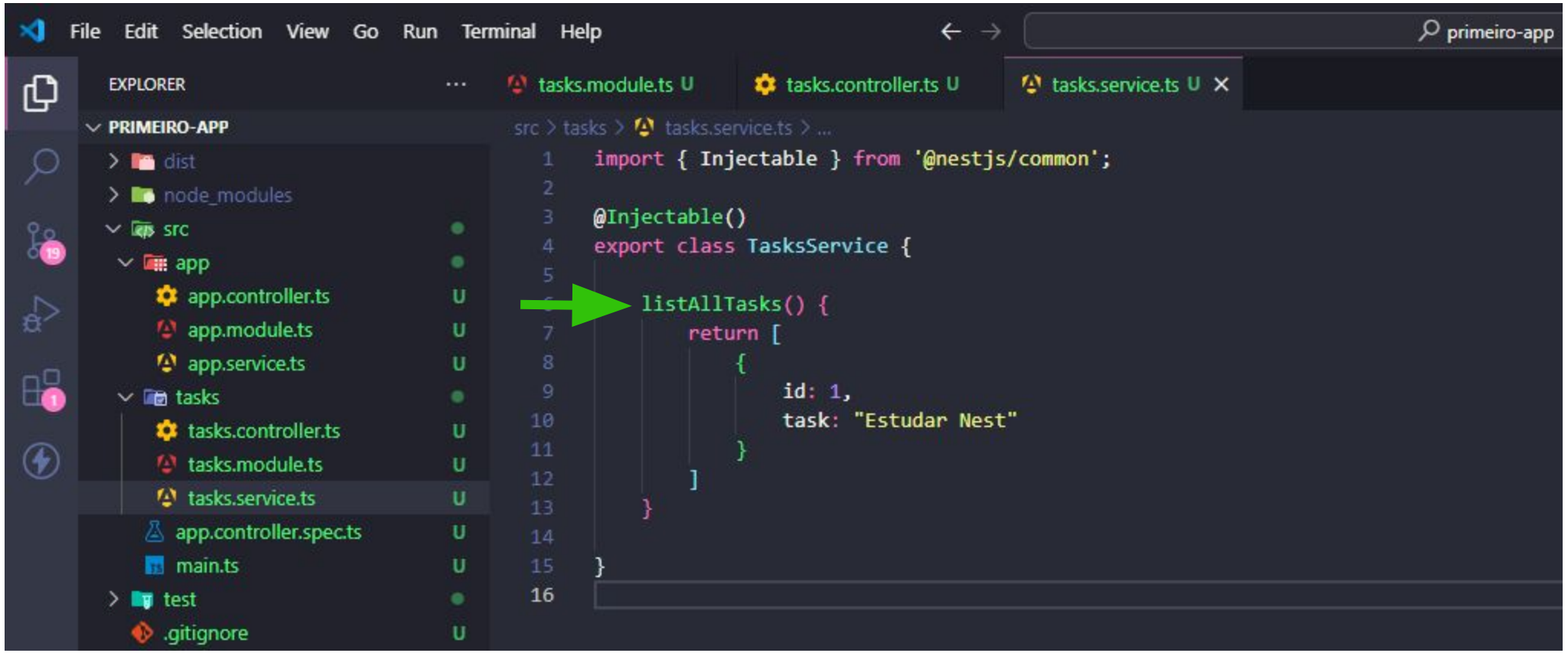
Gerando Service / Provider



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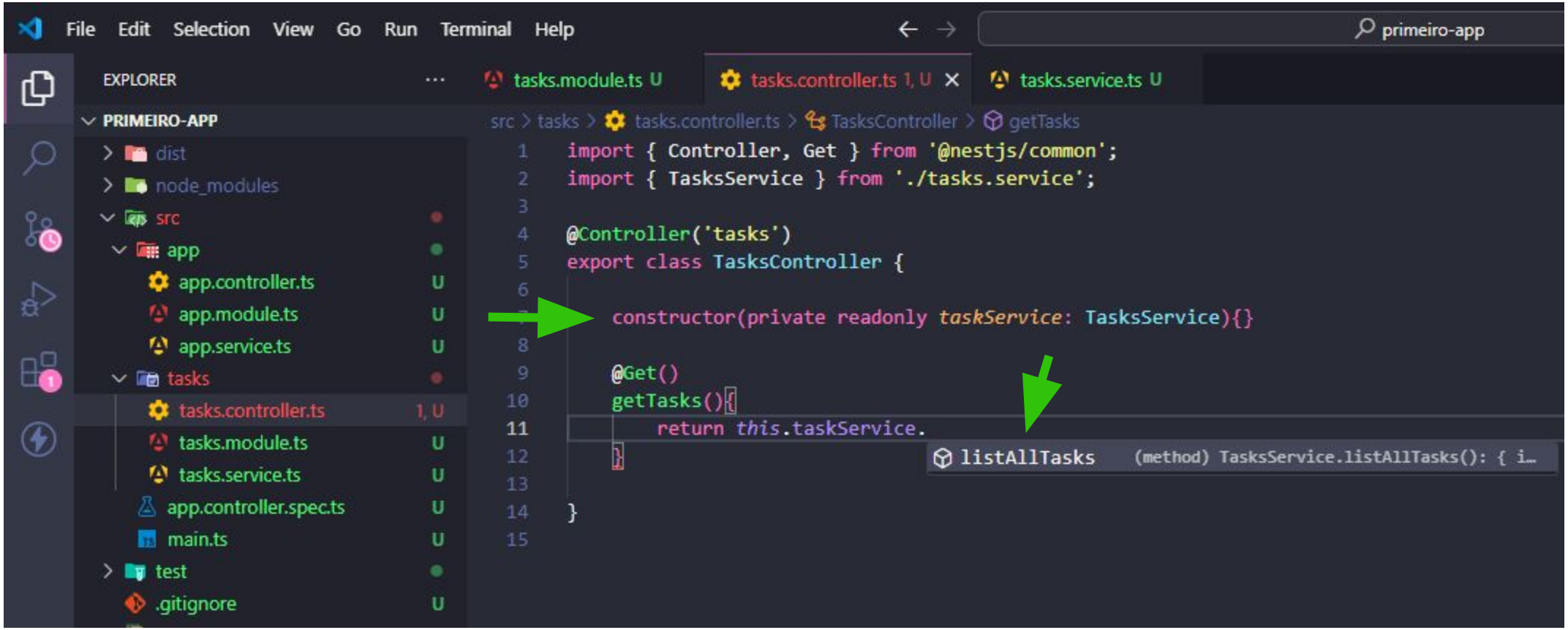
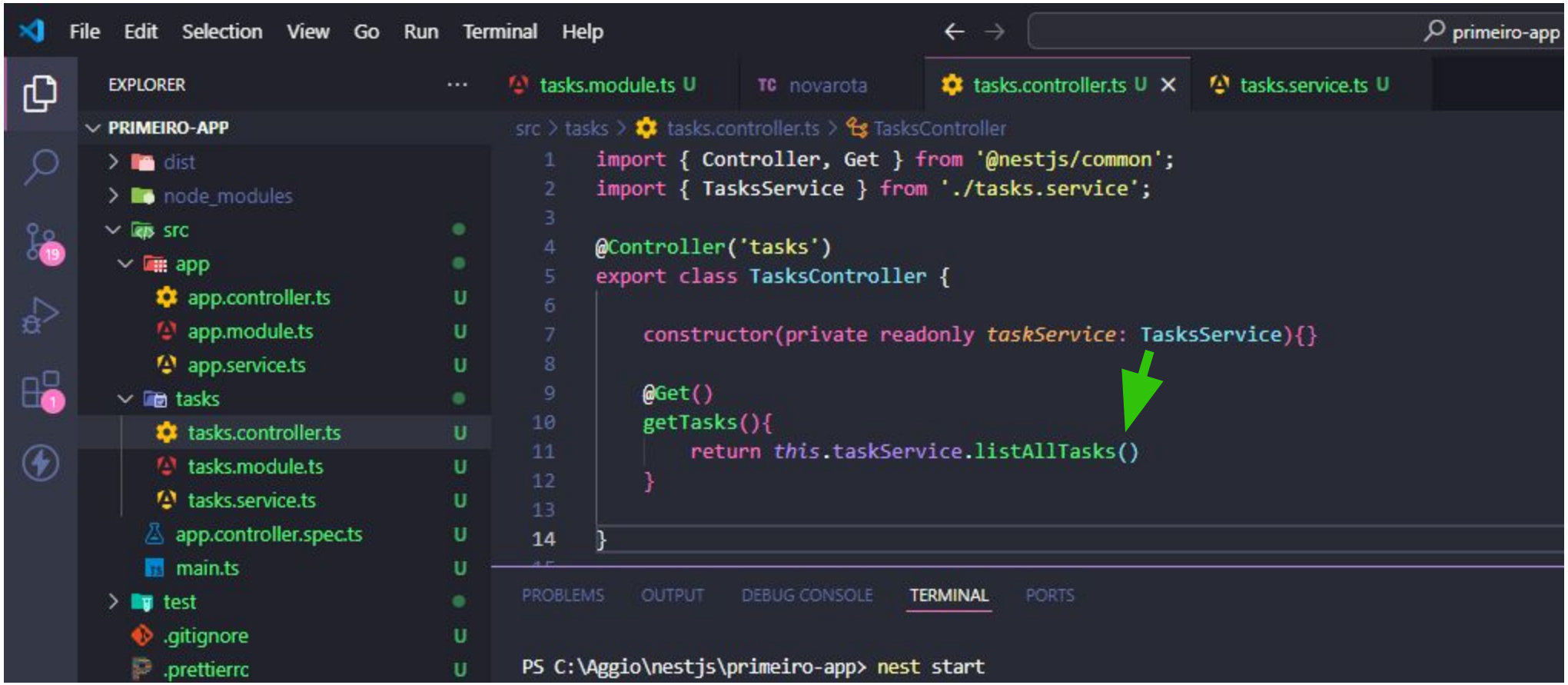
Gerando Service / Provider



Gerando Service / Provider



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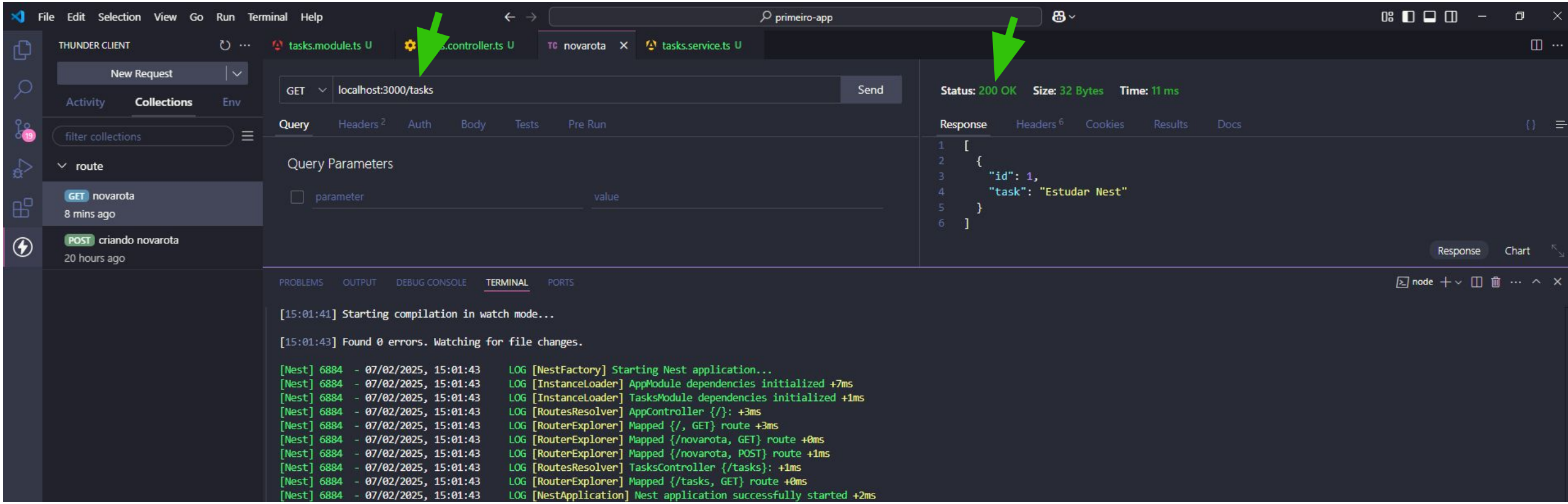
Gerando Service / Provider



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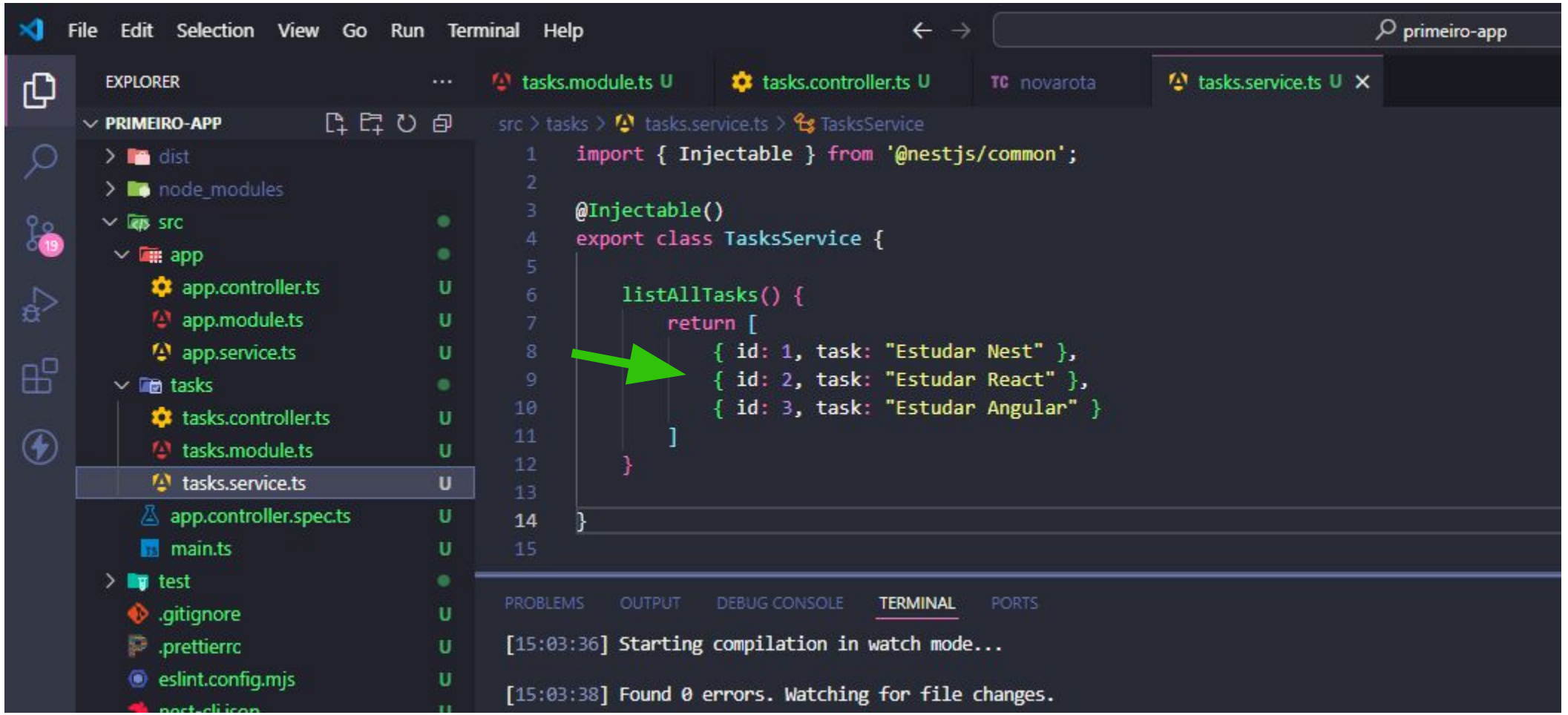
Gerando Service / Provider



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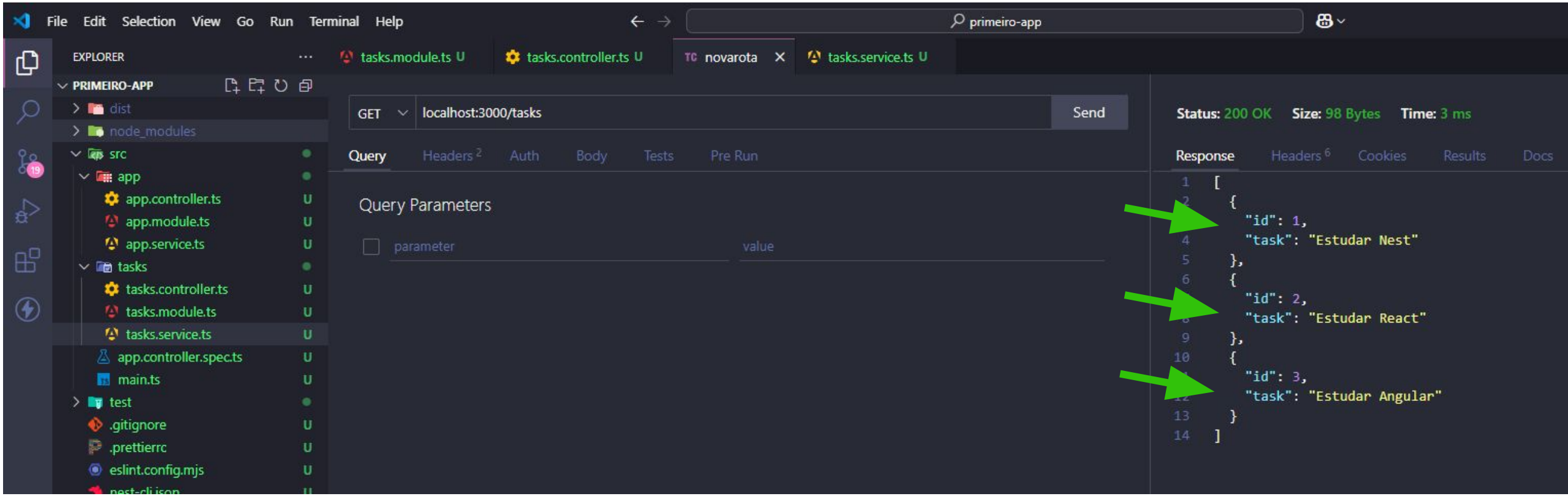
Gerando Service / Provider



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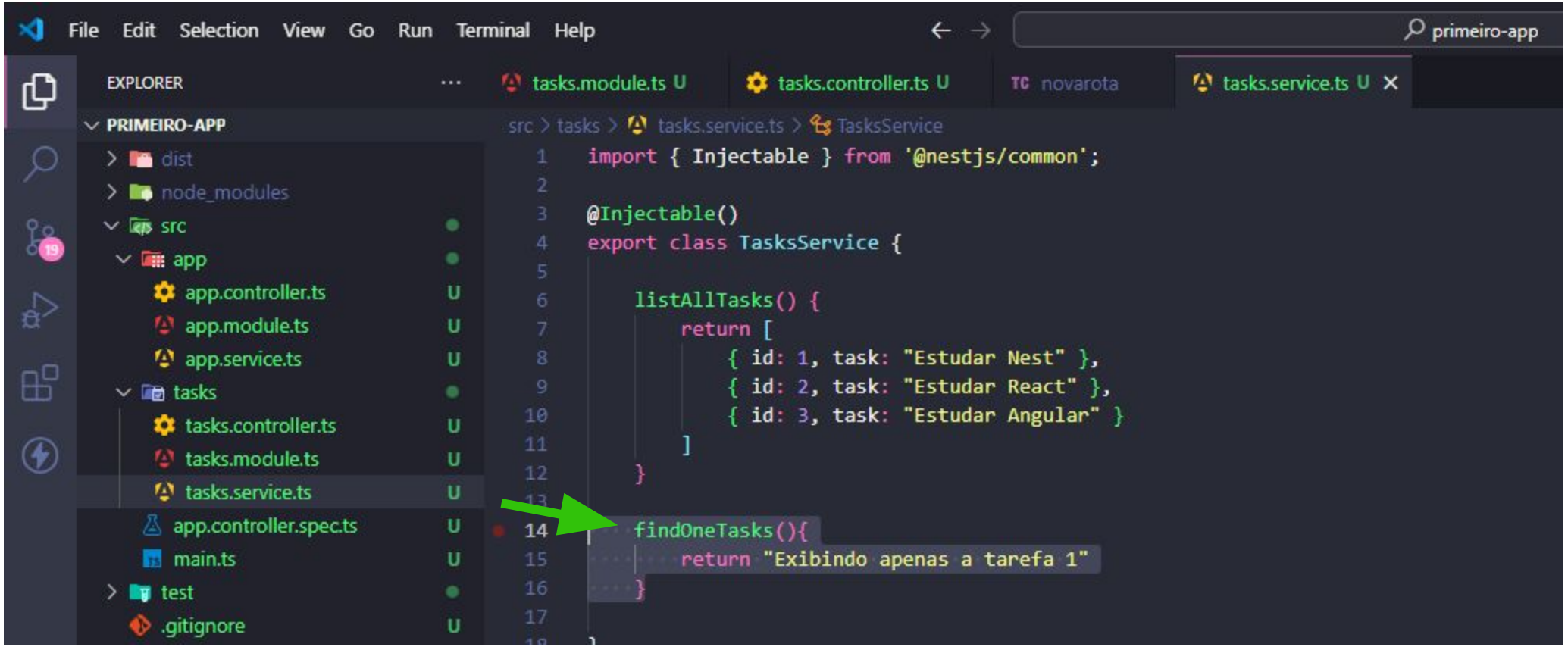
Gerando Service / Provider



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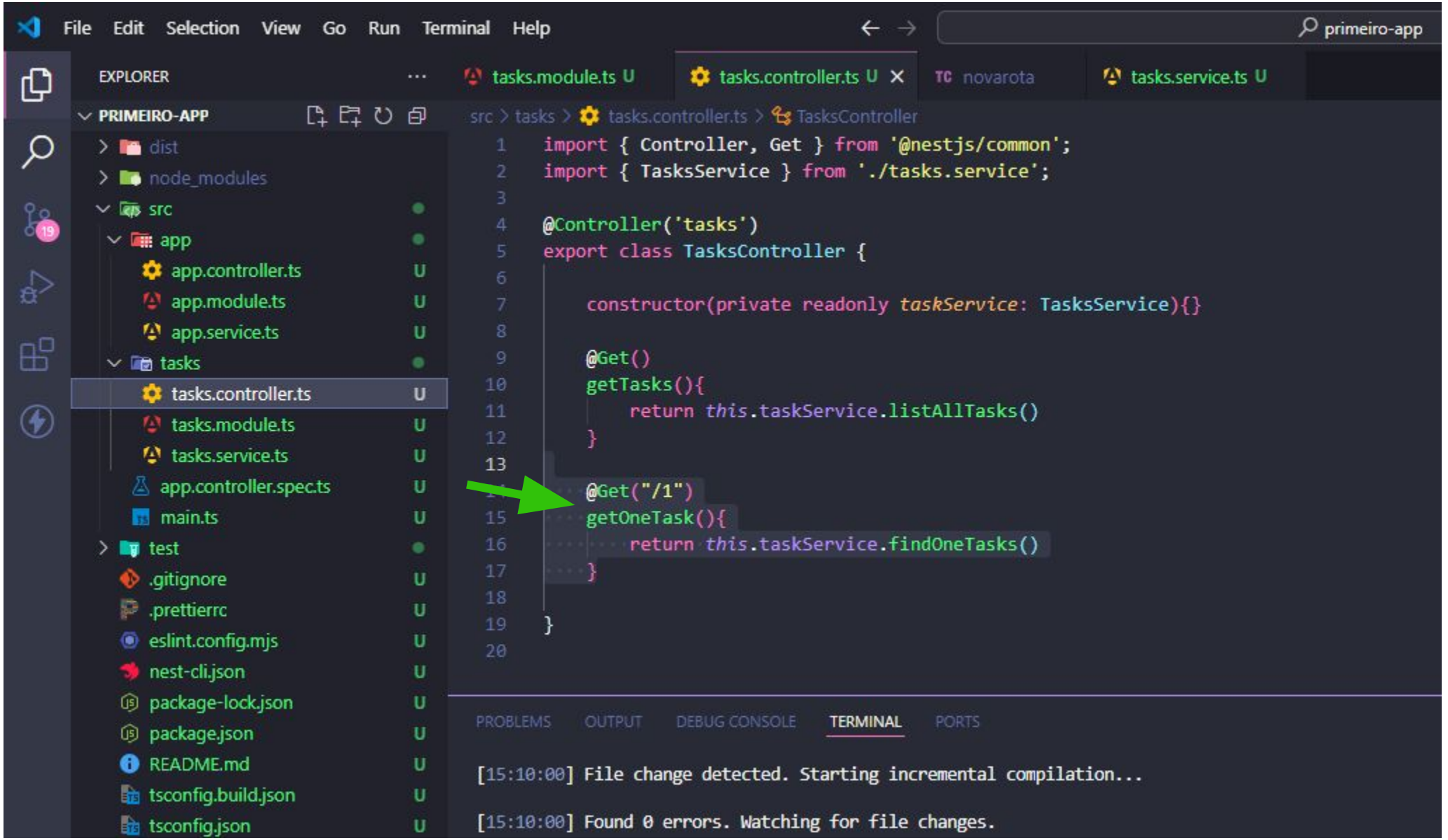
Gerando Service / Provider



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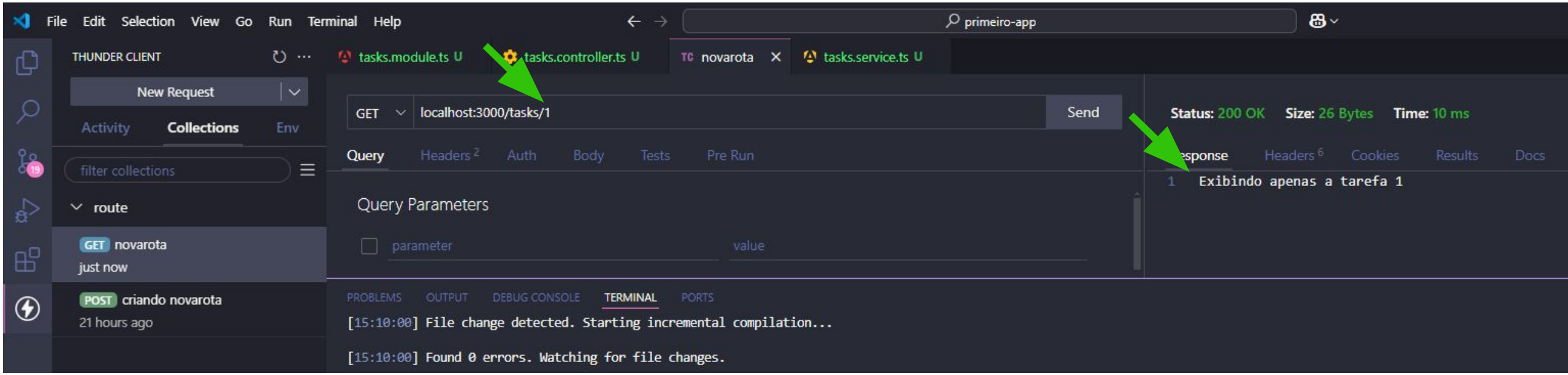

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Atividade

1) Crie as camadas: Guests, Users e Teachers

2) Implemente sem utilizar a CLI: Module, Controller e Service

3) Implemente o verbo Get, para listar tudo e por id

4) Teste as rotas no Postman ou Thunder Client