

## **Deno Back-End Starter Kit**

This repository is a ready-to-use starter kit for Deno, offering a well-organized and structured API setup similar to what you might expect from a Node.js environment. It includes configurations for essential packages such as Hono, Mongoose, and jsonwebtoken.

#### **Important Note**

This starter kit is not intended for newcomers. It is recommended for developers who have advanced experience with Node.js and TypeScript, and who understand the Deno architecture. If you are new to these technologies, it is advisable to first familiarize yourself with the basics before using this starter kit.

#### **Author**

Name: Mr. Wayne

Website: a4arpon.me

GitHub: <u>a4arpon</u>

LinkedIn: a4arpon

Facebook: a4arpon

## **Packages Used**

Deno

Hono

Mongoose

jsonwebtoken

## Why Use This Starter Kit?

This starter kit solves the problem of having an unstructured and disorganized API setup in Deno. Unlike Node.js, there isn't a wealth of well-organized starter templates for Deno. This kit provides:

A structured folder organization

Pre-configured middlewares for logging, CORS, and security

A ready-to-use database connection setup with Mongoose

Standardized response and error handling mechanisms

Flexibility to add plugins and change database drivers as needed

#### What's Next?

I'm willing to include these things in the Starter-Kit in future

Deno KV

Deno Corn

Mail System

**Authorization Guards** 

### **Folder Structure**

```
ſĠ
             # Deno configuration file
# Lock file for dependencies
deno.json
deno.lock
                  # Project documentation
- README.md
- src
 — config
                  # Configuration files
   └─ helmet.config.ts
   - main.ts  # Main application entry point
   └─ user.model.ts
   - routes # API route definitions
     -- router.ts
     └─ stable.routes.ts
   — middlewares # Application guards and middlewares

    services # Business logic and services

     └─ users.services.ts
   - types # Type definitions
     L— shared.types.ts
   - utils
                  # Utility functions
     — async.ts
     response.ts
```

## .env File Sample

```
MONGODB_URL=""
```

# **Key Components**

### Main Application Setup (main.ts)

**Environment Loader**: Loads environment variables.

Middlewares: Sets up logging, CORS, and security headers.

Database Connection: Connects to MongoDB using Mongoose.

Router Setup: Defines base routes and integrates with the router.

#### Router (router.ts)

Stable Routes: Handles stable API routes.

Beta Routes: Placeholder for beta routes, currently returns a not active message.

#### Stable Routes (stable.routes.ts)

Defines the routes for user-related operations.

#### User Services (user.services.ts)

Contains the business logic for user operations, such as creating a user and retrieving users.

### **Utility Functions**

**Async Handler ( async.ts )**: Safely handles async operations to catch errors.

```
export function safeAsync(func) {
   return async (context) => {
     try {
       return await func(context)
     } catch (error) {
       return exception(
       context,
       HTTPStatus.InternalServerError,
       "Internal Server Error",
       )
     }
   }
}
```

**Explanation**: This function wraps asynchronous operations to handle errors gracefully. It catches any errors thrown within the wrapped function and returns a standardized error response.

Response (response.ts): Standardizes JSON responses.

```
export function response(context, message, data, extra, success) {
   return context.json({
    success: success || true,
    message,
    ...extra,
```

```
data,
})
}
```

□ README

**Exception ( response.ts )**: Handles exceptions and sends error responses.

```
ſĠ
export function exception(context, status, error) {
 if (status && error instanceof Error) {
    context.status(status)
    return context.json({
     success: false,
     status: status,
     message: error.message,
   })
 }
 context.status(500)
 return context.json({
   success: false,
    status: 500,
   message: "Internal Server Error",
 })
}
```

**Explanation**: This function handles exceptions and sends a structured error response. It sets the HTTP status code and returns an error message.

### Customization

### **Adding Plugins**

You can easily add plugins to this starter kit from the <u>Hono website</u>. Follow the instructions on the website to integrate additional functionalities as per your requirements.

### **Changing Database Driver**

The starter kit uses Mongoose for MongoDB. However, you can replace it with any other database driver by updating the database connection logic in main.ts and adjusting the models and services accordingly.

## **Getting Started**

#### Clone the repository:

=

git clone https://github.com/a4arpon/deno-starter-kit.git

Install Deno: Follow the instructions on the official Deno website.

Run the application:

deno task start

## Contribution

## Deployments 21

- **Production** 6 months ago
- Preview 6 months ago

+ 19 deployments

#### Languages

• TypeScript 100.0%