

Fullstack Development

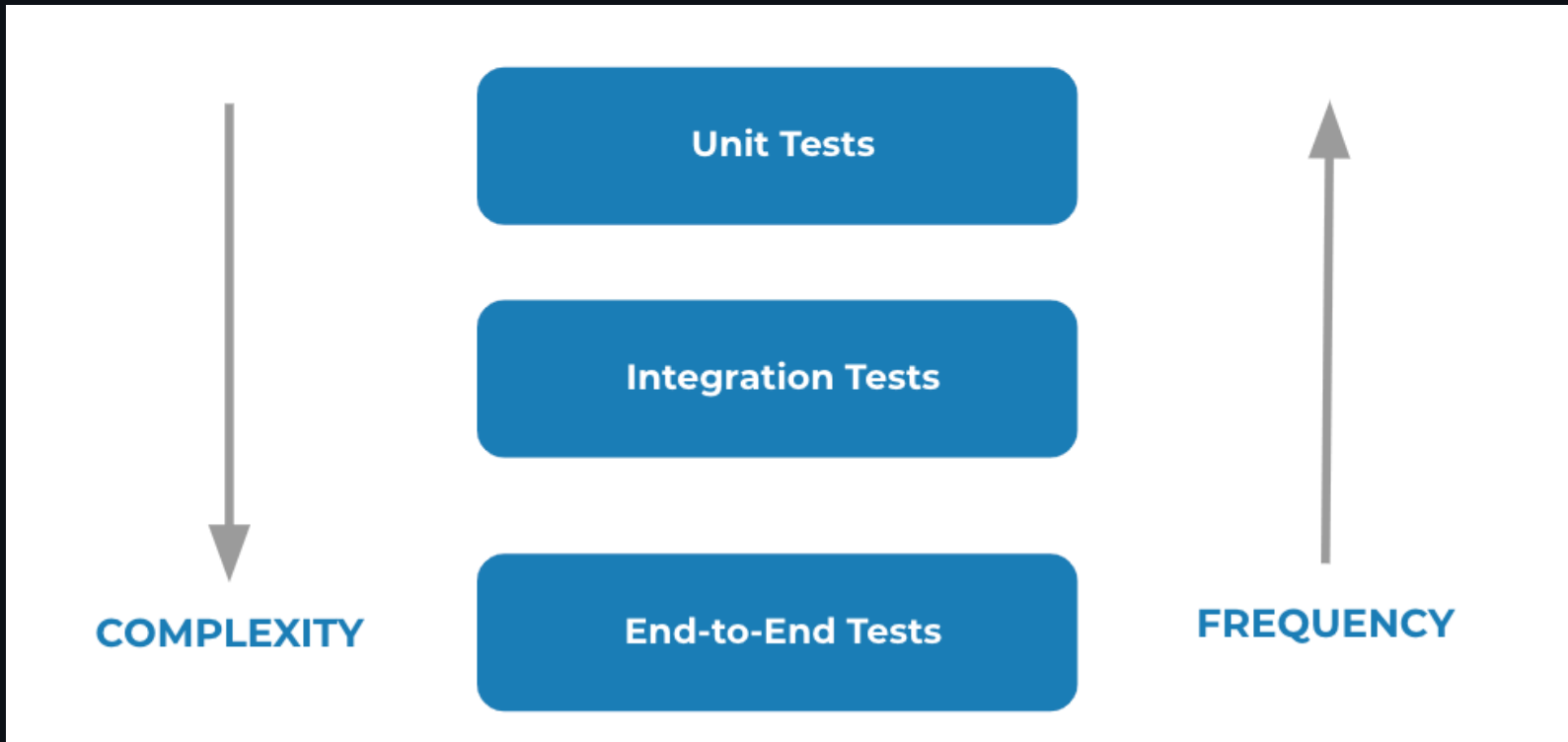
Preflight project - automated testing

[Github Repo](#)

Setup (Repos)

- DB
- Backend
- Frontend

Testing types



Testing types

- Unit test
 - Tests individual code components.
- Iteration test
 - Checks code dependency.
- End-to-end test
 - Assesses an application's functionality and user experience.

Examples

Test Type	Example	Targeted Scope
Unit Testing	Verifying that <code>add(x, y)</code> returns the sum of <code>x</code> and <code>y</code> .	Individual function/module
Integration Testing	Testing authentication APIs	Combination of modules
End-to-End (E2E) Testing	Simulating a user buying a product.	Full application workflow

Testing frameworks

- State of JS 2024

Setting up

- `npm init es6`
- `pnpm install cypress typescript dotenv @tsconfig/node-lts @tsconfig/node-ts @types/node`
- `npx cypress install`
 - This will install `Cypress` binary into `$env:LOCALAPPDATA/Cypress` (Windows).

Files

- `./tsconfig.json` [\(Link\)](#)
 - *Note this [issue](#)*
- `./.env` from `.env.example` [\(Link\)](#)
- `./.gitignore` [\(Link\)](#)
- Modify `./package.json` [\(Link\)](#)

Run your first test

- `npm run test`

Cypress Browser

- Click `E2E Testing` ➡ `Continue` ➡ `Start E2E Testing in Chrome`
- Click `Create New Spec` ➡ `Name your spec (min.cy.ts)` ➡ `Run spec`

Minimal example

- `./cypress/e2e/min.cy.ts` [\(Link\)](#)
- Check out [assertion](#) and [actions](#).

Full example

- Enable reading `.env`
 - `./cypress.config.ts` [\(Link\)](#)
- Spec files
 - `./cypress/e2e/backend.cy.ts` [\(Link\)](#)
 - `./cypress/e2e/frontend.cy.ts` [\(Link\)](#)