

SOLICITEL

Frontend Installation Guide

Software Engineering 2 Team 5 - 2024

Content Table

<i>1. INTRODUCTION</i>	3
1.1 Purpose	3
1.2 Scope.....	3
<i>2. INSTALLATION MANUAL</i>	4
2.1 Pre-requisites	4
2.2 Pre-Installations Tasks.....	7
2.3 Installation Procedure	9

1. INTRODUCTION

1.1 Purpose

This document provides an installation guide for the Solicitel application developed through React framework. To provide a comprehensive guide for the deployment in production of this web application.

It is important that users have a basic understanding of React and its core concepts, the JavaScript programming language, HTML, Tailwind, and a brief introduction to npm (Node Package Manager).

1.2 Scope

This document will provide a step-by-step guide to install and deploy the application. It will outline the necessary libraries and packages, with links provided to download the required tools. Additionally, supplementary tutorials will be included for the installation and configuration of these tools. Throughout the guide, pictures of the expected results, console outputs, and example configuration files will be provided to assist users.

2. INSTALLATION MANUAL

2.1 Pre-requisites

To ensure that the development environment is configured correctly, it is essential to follow the steps outlined in this section. The operating systems and software components mentioned have been tested and are compatible with this application. The correct installation of Node.js and npm is critical for running the React-based application.

Compatible operating systems:

- macOS Sonoma or later versions
- Windows 11
- Ubuntu 22.04

Any operating system compatible with Node.js should be able to run the application. However, not all tools might be supported by every OS. The complete list of compatible operating systems for Node.js and installation guides are provided here:

<https://nodejs.org/en/download/package-manager/all>

This guide will focus on macOS, Windows 11, and Ubuntu 22.04. Node.js is essential because many actions and functions of React rely on npm (Node Package Manager).

Software Components:

- Runtime Environment: Node.js 20.9.0

Instructions for macOS and Windows:

1. Visit the official Node.js website and download version 20.16.0, which is compatible with your operating system: <https://nodejs.org/en/download/package-manager>

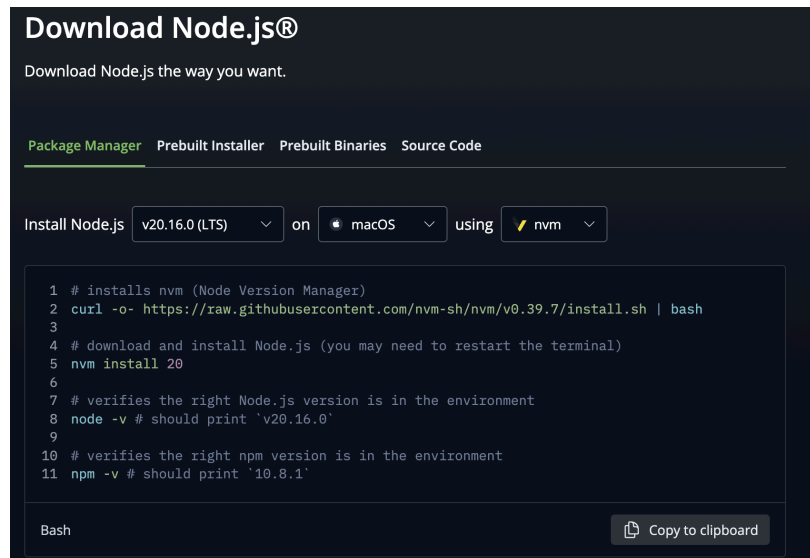


Figure 1 Official Node.js download page showing the selection of version 20.16.0 and operating system.

2. Complete the installation process, which will install both Node.js and npm.
3. Verify the installation by opening the terminal and running the following commands:

`node -v`

`npm -v`

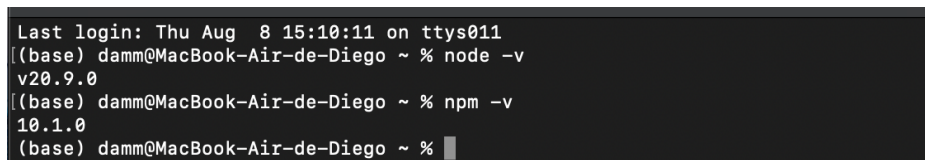


Figure 2 Verification of Node.js and npm installation on macOS.

4. Additional Notes:

Although the running environment for this project is based on Node.js 20.9.0, the version shown in this guide, 20.16.0, is also fully compatible and recommended for installation.

5. Common Problem Solving:

If npm is not recognized as a command, verify that Node.js is correctly installed and that the installation path is set in the environment variables.

Instructions for Ubuntu 22.04:

1. Open a terminal and run the following commands to install Node.js and npm:

```
sudo apt install nodejs
```

```
sudo apt install npm
```

2. Verify the installation with:

```
node -v
```

```
npm -v
```

3. Additional Notes:

On Ubuntu, you may need elevated permissions (sudo) to install and configure global dependencies. Consider using nvm (Node Version Manager) to manage different versions of Node.js more flexibly.

Frameworks: Installing React

React is a popular JavaScript library designed for building user interfaces, particularly single-page applications. It allows developers to create reusable UI components, which can efficiently manage the state and lifecycle of the application. React works well with modern tools like Create React App and frameworks such as Next.js, making it a versatile choice for both small and large projects.

Instructions for install React:

1. Open a terminal and run the following command:

```
npm install react react-dom
```

This command will install both react, which is the core React library, and react-dom, which provides DOM-specific methods that enable React to interact with the browser's DOM.

2. To check that React has been installed correctly run the following command:
npm view react version

```
[(base) damm@MacBook-Air-de-Diego ~ % npm view react version  
18.3.1  
[(base) damm@MacBook-Air-de-Diego ~ % ]
```

Figure 3 Verification of React installation on macOS.

2.2 Pre-Installations Tasks

Before proceeding with the installation, it is essential that you make sure that all tools, applications and frameworks have been downloaded correctly as they may cause compatibility problems, unexpected errors or failures during development. Verify that each version is the correct one for your system. Once confirmed, you can continue with the installation steps.

Source Code

Download the source code file of the application from the GitHub repository:

<https://github.com/itconsultore/espoltel-compras>

To get the source code, follow the steps below:

1. Go to the repository provided in the link above.
2. Click on the green button that says Code.

3. Select the Download ZIP option as indicated in the image below to download the entire contents of the repository as a ZIP file.

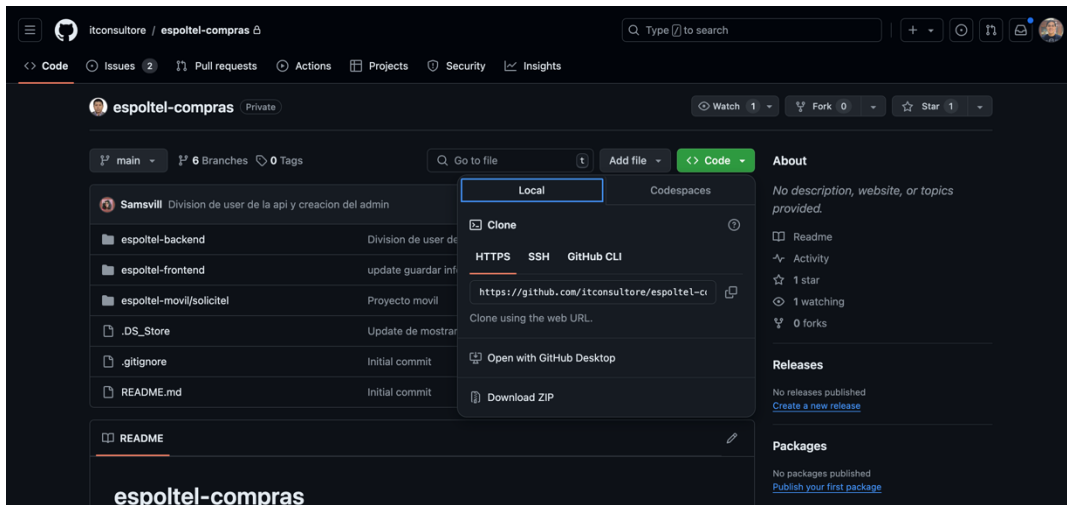


Figure 4 Download the source code in ZIP format from GitHub

Code Editing Tool

For editing the source code of the espotel-compras project, it is recommended to use a modern code editor. Visual Studio Code is the preferred choice for this project due to its robust feature set, including integrated Git, debugging tools, and extensions support.

1. Download Visual Studio Code:

Visit the official [Visual Studio Code download page](#) and select the version appropriate for your operating system. The image below shows the download options available for Windows, macOS, and Linux.

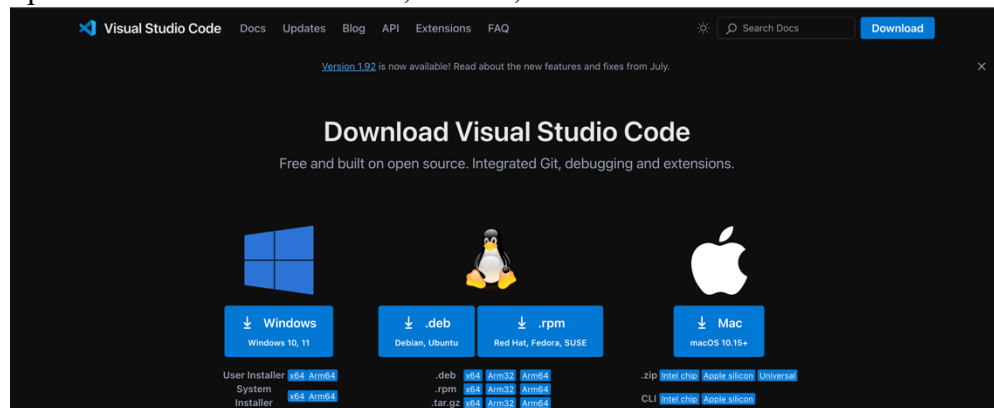


Figure 5 Visual Code web page

2. Install Visual Studio Code:

Follow the installation instructions provided on the download page or within the installer. Once installed, open the espotel-compras folder in Visual Studio Code.

2.3 Installation Procedure

1. Open the Project:

Begin by opening the folder of the project that you previously downloaded from GitHub using the Visual Studio Code tool. The project structure should be organized as expected, with key files like package.json located in the espotel-frontend directory.

2. Package Installation:

To run the application, a series of libraries must be installed. Navigate to the espotel-compras/espotel-frontend/ directory in your terminal or command prompt, then check the package.json file, which should contain entries like the following:

```
{
  "name": "espotel-frontend",
  "version": "0.1.0",
  "private": true,
  "dependencies": {
    "@testing-library/jest-dom": "^5.17.0",
    "@testing-library/react": "^13.4.0",
    "@testing-library/user-event": "^13.5.0",
    "axios": "^1.7.2",
    "jwt-decode": "^4.0.0",
    "react": "^18.3.1",
    "react-dom": "^18.3.1",
    "react-router-dom": "^6.23.1",
    "react-scripts": "5.0.1",
    "web-vitals": "^2.1.4"
  },
  "scripts": {
    "start": "react-scripts start",
    "build": "react-scripts build",
    "test": "react-scripts test",
    "eject": "react-scripts eject",
    "lint": "eslint 'src/**/*.js,jsx'",
    "lint:fix": "eslint 'src/**/*.js,jsx,ts,tsx' --fix"
  }
}
```

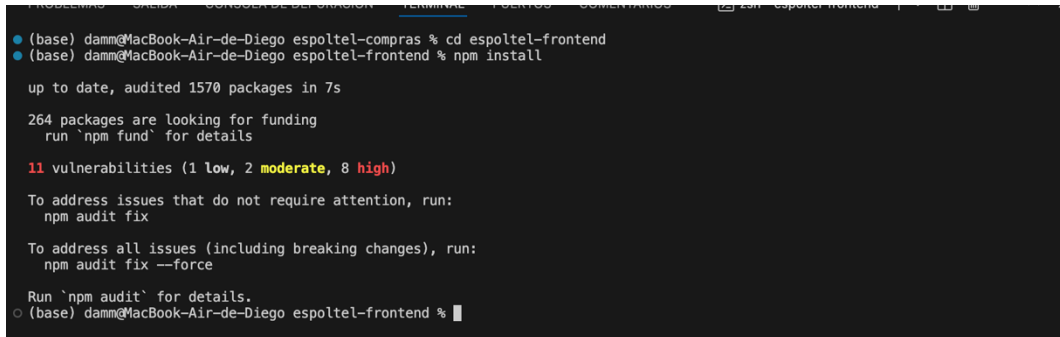
Figure 6 Dependencies Listed in package.json for espotel-frontend

3. Install Dependencies:

Run the following command to install all necessary dependencies:

npm install

The expected output should be:



```
(base) damm@MacBook-Air-de-Diego espolitel-compras % cd espolitel-frontend
(base) damm@MacBook-Air-de-Diego espolitel-frontend % npm install

up to date, audited 1570 packages in 7s

264 packages are looking for funding
  run `npm fund` for details

11 vulnerabilities (1 low, 2 moderate, 8 high)

To address issues that do not require attention, run:
  npm audit fix

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
(base) damm@MacBook-Air-de-Diego espolitel-frontend %
```

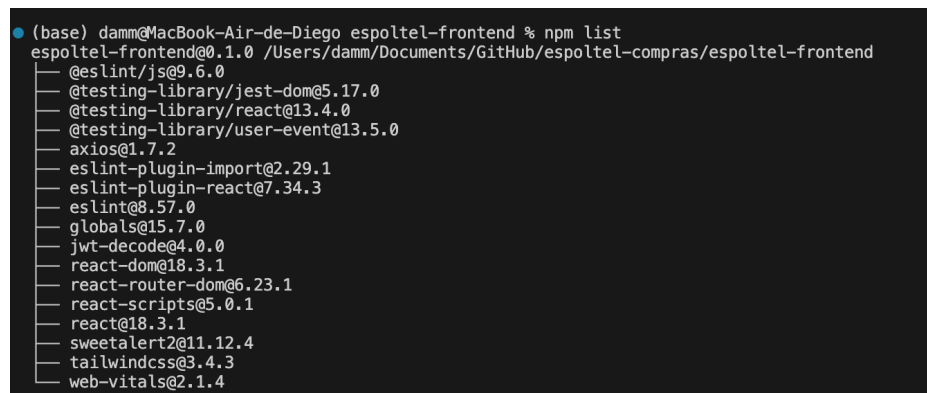
Figure 7 Output After Running npm install for Dependency Installation

4. Verify Installation:

After the installation process completes, verify that all packages have been installed correctly by running:

npm list

The expected output should list all installed packages and their versions, confirming that the installation was successful.



```
(base) damm@MacBook-Air-de-Diego espolitel-frontend % npm list
espolitel-frontend@0.1.0 /Users/damm/Documents/GitHub/espolitel-compras/espolitel-frontend
├── @eslint/js@9.6.0
├── @testing-library/jest-dom@5.17.0
├── @testing-library/react@13.4.0
├── @testing-library/user-event@13.5.0
├── axios@1.7.2
├── eslint-plugin-import@2.29.1
├── eslint-plugin-react@7.34.3
├── eslint@8.57.0
├── globals@15.7.0
├── jwt-decode@4.0.0
├── react-dom@18.3.1
├── react-router-dom@6.23.1
├── react-scripts@5.0.1
├── react@18.3.1
├── sweetalert2@11.12.4
├── tailwindcss@3.4.3
└── web-vitals@2.1.4
```

Figure 8 Output of npm list Command Displaying Installed Packages

5. Run the Application:

Finally, to start the application, run the following command:

npm start

The program should now be running in your browser at <http://localhost:3000>.

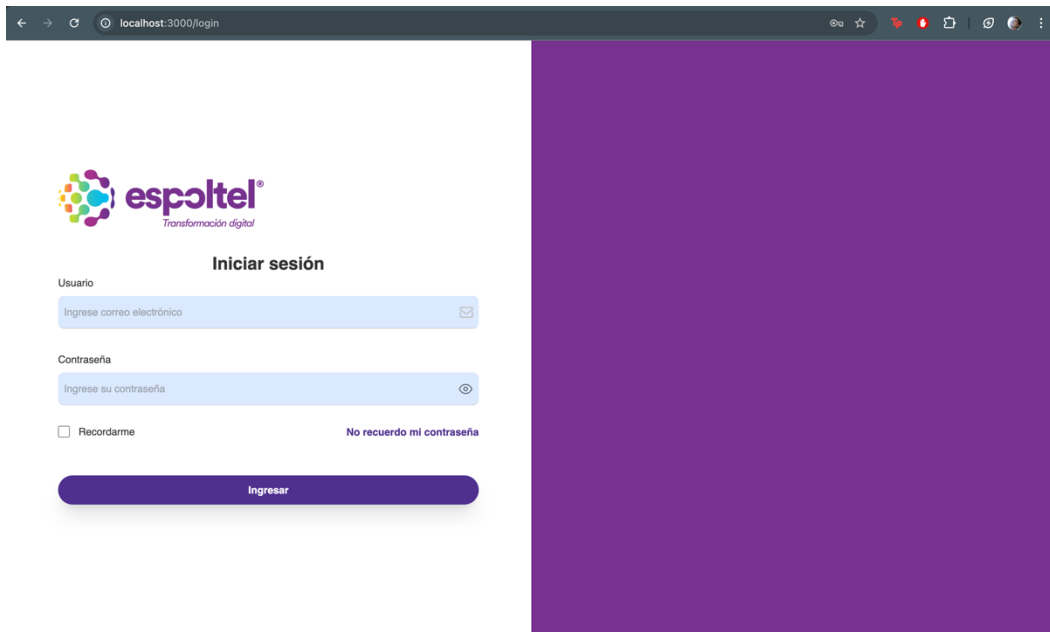


Figure 9 Running the application on localhost:3000