NovaCare Installation Guide

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Introducing NovaCare

What is NovaCare?

NovaCare is an intelligent healthcare system designed to stop health crises *before* they happen.

Traditional healthcare is **reactive** (treating you after you get sick). NovaCare is **proactive** (predicting sickness early so doctors can stop it). It works by acting as a vigilant guardian that watches two things constantly: **Your Body** and **Your Environment**.

1. It Watches the Patient (Physiological Monitoring)

NovaCare doesn't just take a snapshot; it watches a continuous live stream of the patient's health.

- **What it tracks:** Heart rate, oxygen levels, blood pressure, and temperature.
- **The AI Difference:** Instead of just beeping when a number is too high, our AI looks for subtle patterns and trends that human eyes might miss, detecting instability hours before a crash.

2. It Watches the Room (Environmental Awareness)

Healing isn't just about medicine; it's about where you sleep. NovaCare monitors the room to ensure it aids recovery.

- **What it tracks:** Air quality, room temperature, humidity, noise levels, and lighting.
- **Why?** Bad air or loud noises can slow down recovery. NovaCare connects the dots between a patient's stress and their environment.

3. It Predicts the Future (Predictive Intervention)

This is our most powerful feature.

- **The Old Way:** Alarms sound *after* a heart attack or respiratory failure begins.
- **The NovaCare Way:** Our predictive models send alerts **minutes or hours before** a critical event occurs. This gives doctors valuable time to intervene, adjust medication, and prevent the emergency entirely.

4. It Optimizes Healing

NovaCare doesn't just watch; it helps. It can automatically suggest adjustments—like dimming lights for better sleep or turning on air purifiers—to create the perfect environment for the body to heal. *NovaCare is not just an alarm system; it is a **predictive guardian** ensuring a safer, faster recovery for every patient.*

Who Should Read This Manual?

This guide is written for two specific groups of people:

- **For Developers & IT Support (The Tech Team)**
  - **Your Goal:** To install, set up, and keep the NovaCare software running.
  - **What You Need to Know:** You should be comfortable using the Terminal (Command Line), Python, and Git.
  - **Where to Start:** Read **Sections 2 and 3** to get the system installed and running.

- **For Doctors & Patients (The End Users)**
  - **Your Goal:** To use the NovaCare dashboard to check health stats and see risk predictions.
  - **What You Need to Know:** No technical skills are needed. If you know how to browse a website, you can use this app.
  - **Where to Start:** Skip to **Section 4 (User Guide)** to learn how to use the dashboard features.

System Requirements

To run NovaCare smoothly, please ensure your computer meets the following specifications.

💻 Hardware Requirements (Minimum)

- Operating System: Windows 10/11, macOS, or Linux (Ubuntu 20.04+).
- RAM: 4 GB minimum (8 GB recommended for training AI models).
- Storage: At least 2 GB of free disk space.
- Internet Connection: Required for downloading updates and libraries.

🛠️ Software Requirements

Before installing NovaCare, you must have these three tools installed on your computer:

1. Python (Version 3.8 or higher)
   - *Required for:* Running the AI Model and Backend Server.
   - *Download:* python.org
2. Node.js (LTS Version)
   - *Required for:* Running the User Interface (Frontend).
   - *Download:* nodejs.org
3. Git
   - *Required for:* Downloading the project code.
   - *Download:* [git-scm.com](git-scm.com)

🌐 Browser Support

The NovaCare dashboard is optimized for modern web browsers:

- Google Chrome (Recommended)
- Mozilla Firefox
- Microsoft Edge
- Safari

Installation Steps

Follow these steps to get the NovaCare system running on your local machine.

Step 1: Get the Source Code

You need to download the project files to your computer. You can do this in one of two ways:

Option A: Using Git (Recommended) Open your terminal or command prompt and run the following command to download the code directly:

git clone https://github.com/YourRepo/NovaCare.git

Option B: Using a ZIP File

★ Go to the GitHub repository page.
★ Click the green **Code** button and select **Download ZIP**.
★ Locate the downloaded file (usually in your `Downloads` folder).
★ Right-click the `.zip` file and select **Extract All** to unzip the folder.

Step 2: Install Dependencies

NovaCare relies on specific software libraries to work. You must install these for both the Backend (the AI) and the Frontend (the Interface).

A. Install Backend Libraries (Python)

The backend manages the AI predictions.

1. Open your terminal and navigate to the backend folder:

   cd NovaCare/backend

2. Run the installation command:

   pip install -r requirements.txt

Note: This installs tools like `flask`, `scikit-learn`, and `pandas`.

B. Install Frontend Libraries (Node.js)

The frontend manages the visual dashboard.

1. Open a **new** terminal window.
2. Navigate to the frontend folder:

cd NovaCare/frontend

3. Run the installation command:

npm install

Note: This might take a few minutes as it downloads the React packages.

Configuration

Before running the application, you must configure the environment variables and set up the local database.

Step 1: Environment Variables

The application needs specific keys to run securely (like passwords and API configurations).

1. **Locate the Example File:** In the `backend` folder, look for a file named `.env.example`.
2. **Rename the File:** Rename this file to just `.env` (remove the ".example" at the end).

Edit the File: Open `.env` in any text editor (Notepad, VS Code) and verify the settings. It should look something like this:

FLASK_APP=app.py
FLASK_ENV=development
SECRET_KEY=your-secret-key-here
DATABASE_URL=sqlite:///novacare.db

Note: For this version, we are using a local SQLite database, so you likely do not need to change the `DATABASE_URL`.

Step 2: Database Setup

You need to create the database tables so the app can save user data (like login credentials).

Ensure you are still in the `backend` folder in your terminal.

Run the migration command to initialize the database:

flask db upgrade

Success: You should see messages confirming that tables for "Users" and "HealthProfiles" have been created.

Running the Application

Once installed and configured, you can launch NovaCare using one of the methods below.

Option A: For Developers (Manual Start)

This method is best for debugging and seeing error messages. You will need **two** terminal windows open.

1. Start the Backend (The Brain)

- Open your first terminal.
- Navigate to the backend folder: `cd NovaCare/backend`
- Run the server:

```
python app.py
```

- *Status:* You should see `Running on http://127.0.0.1:5000`.

2. Start the Frontend (The Face)

- Open a **new** terminal window.
- Navigate to the frontend folder: `cd NovaCare/frontend`
- Run the interface:

```
npm start
```

- *Status:* This will automatically open your default web browser to the NovaCare Dashboard.

Option B: For End Users

Since NovaCare is a web application, "End Users" typically access it via a web browser.

1. Launch the App

- Open Google Chrome or Firefox.
- In the address bar, type: `http://localhost:3000`
- Press **Enter**.

2. Log In

- Use the admin credentials to access the main dashboard:

- **Email:** admin@novacare.com
- **Password:** admin123

Troubleshooting / FAQ

If you encounter issues during installation or while running NovaCare, check the common solutions below.

Installation Issues

Issue: "Installation fails at Step 2 (pip install or npm install)."

- Solution:
    1. **Check Internet:** Ensure you are connected to the internet, as the installer needs to download files.
    2. **Check Privileges:** You might need administrative rights. Try running your terminal as Administrator (Right-click Command Prompt > "Run as Administrator").
    3. **Check Path:** If you see "pip is not recognized," you likely need to add Python to your system PATH. Reinstall Python and check the box that says **"Add Python to PATH"** at the bottom of the installer window.

Issue: "Node or NPM command not found."

- **Solution:** You need to install Node.js. Download the "LTS" version from nodejs.org and restart your terminal.

Runtime Issues (While Running the App)

Issue: "Database connection error" or "Table not found."

- Solution:
    1. **Check the File:** Ensure the `novacare.db` file exists in your `backend` folder.
    2. **Run Migrations:** You may have forgotten to initialize the database. Stop the server and run: `flask db upgrade`.

Issue: "Address already in use" or "Port 5000 is busy."

- Solution:
    - This means another program (or a previous instance of NovaCare) is already using that port.
    - **Fix:** Close all terminal windows and restart the server.
    - **Alternative:** Restart your computer to clear all active ports.

Issue: "The dashboard loads, but clicking 'Submit' does nothing."

- Solution:
  - Check your **Backend Terminal**. Is it still open and running? The frontend (website) cannot work if the backend (server) is closed.
  - Look for error messages in the backend terminal window (e.g., "500 Internal Server Error").

User Guide

NovaCare Mobile Application: User Installation & Setup Guide

Version: 1.0

Date: December 2025

Introduction

Welcome to NovaCare! This guide will assist you in installing, configuring, and navigating the NovaCare mobile application. NovaCare allows you to monitor your health, access predictive health insights, and consult with medical professionals directly from your smartphone.

2. System Requirements

To ensure the app runs smoothly, please verify that your device meets the following minimum specifications:

Feature	Android Users	iOS (Apple) Users
Operating System	Android 8.0 (Oreo) or higher	iOS 13.0 or higher
Device Model	Standard Android smartphones	iPhone 6s or newer
Storage Space	150 MB minimum free space	150 MB minimum free space
Connectivity	4G/5G or stable Wi-Fi	4G/5G or stable Wi-Fi

3. Installation Instructions

For Android Users

1. Open the **Google Play Store** on your device.
2. Tap the search bar and type **"NovaCare"**.
3. Select the app icon (Blue/Green cross symbol) from the results.
4. Tap the **Install** button.
5. Wait for the download to finish; the app will install automatically.

For iOS Users

1. Open the **Apple App Store**.
2. Tap the search tab and type **"NovaCare"**.
3. Tap **Get** next to the NovaCare icon.

4. Authenticate using **Face ID**, **Touch ID**, or your **Apple ID Password**.
5. The app will download and appear on your home screen.

4. Getting Started

Launching the App

Locate the NovaCare icon on your home screen or in your app library and tap to open it.

Creating a New Account

1. On the welcome screen, tap **Sign Up**.
2. Fill in the registration form with accurate details:
   - **Full Name:** (e.g., John Doe)
   - **Email Address:** (e.g., john@example.com)
   - **Phone Number:** (e.g., 0801 234 5678)
   - **Password:** Create a strong password (min. 8 characters).
3. Check the box to agree to the **Terms & Conditions** and **Privacy Policy**.
4. Tap **Create Account**.
5. **Verification:** A 6-digit One-Time Password (OTP) will be sent to your phone or email. Enter this code to verify your identity.

Logging In

1. Launch the app and tap **Log In**.
2. Enter your registered Email/Phone and Password.
3. *(Optional)* Enable **Biometric Login** (Fingerprint/Face ID) for faster access in the future.

5. App Permissions

For NovaCare to provide accurate health assessments, it requires specific permissions. When prompted, please tap **Allow** for the following:

- 📍 **Location:** Used to recommend nearby hospitals, pharmacies, and emergency services.
- 📷 **Camera & Microphone:** Required for video consultations with doctors and scanning medical reports.
- 🔔 **Notifications:** Necessary for medication reminders, appointment alerts, and health warnings.
- 📂 **Storage:** Required to save your medical reports and prescription downloads.

6. Navigating the App (Key Features)

- 🏠 **Home Dashboard:** View your daily health summary, AI-driven health predictions, and quick actions.
- 🩺 **Consult:** Book appointments with specialists or start an instant chat with a general practitioner.

- 📋 **Medical Records:** Securely store and view your consultation history, lab results, and prescriptions.
- 🤖 **AI Health Scan:** Use the predictive tool to analyze symptoms and get preliminary health risk assessments.
- ⚙️ **Settings:** Manage your profile, change passwords, and adjust privacy preferences.

7. Troubleshooting

Issue	Possible Cause	Solution
App won't install	Insufficient storage or bad internet	Delete unused apps to free up 150MB+ and check your Wi-Fi.
Login Failed	Incorrect password	Tap "Forgot Password" to reset it via email.
App Crashes	Outdated OS or Cache issue	Update your phone's Android/iOS version or restart your device.
Location not working	Permission denied	Go to **Settings > Apps > NovaCare > Permissions** and enable Location.