

pandemica

second wave 

installation & deployment guide



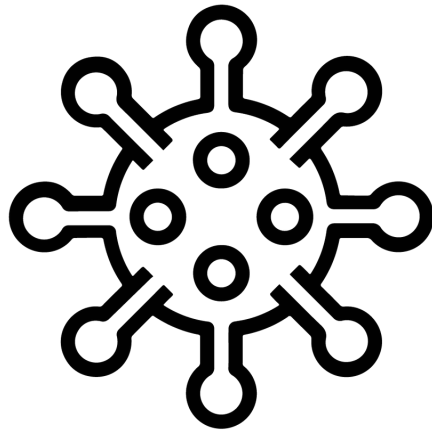
schlafenhase

First Edition, 2020.
2020, Costa Rica.
Costa Rica Institute of Technology.

Computer Engineering Academical Area
Databases. CE-3101.

This document was redacted with academical purposes.





pandemica

second wave 

installation & deployment guide



Jose D. Acuña
Kevin Cordero
Alejandro Ibarra
Jose D. Sánchez
Jesus Y. Sandoval



schlafenhase

table of contents



server **API & database**

1-4

client **website**

5-7

efficient innovation.



Pandemica Second Wave is our latest release regarding the **Pandemica** platform. Since its introduction, we've received great feedback that we used to build and improve every aspect of the **Pandemica** experience. Now, we are very excited to finally share with you what we've been working on for a while now. This is an updated guide on how to deploy the new **Pandemica Second Wave** features from a technical standpoint.

First, a little bit of an introduction to the project structure that we used. There are three main folders in the provided source code.

Web - Standalone website built with Angular framework for TypeScript.

API - REST APIs that provides content and information, built with .NET Framework

Database - Built in SQL, deployed with MS SQL Server and PostgreSQL

We'll start the process of installing the website component. It is assumed that there's a dedicated machine where the service will be deployed, already set up for external web domain access.

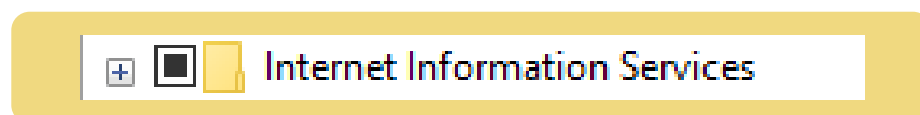
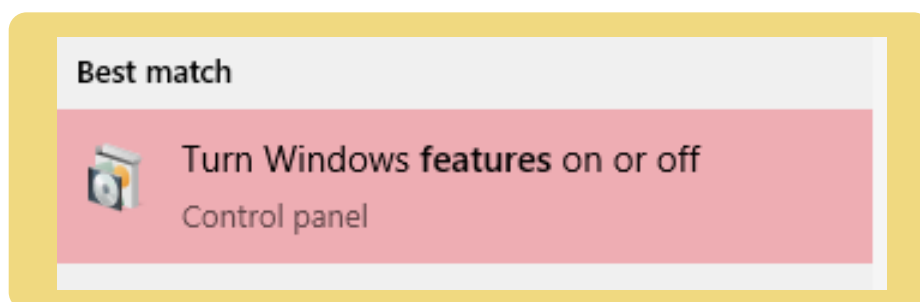
IMPORTANT: If your organization intends on signing up for a third party hosting service like Azure, Firebase or Amazon Cloud, etc., it is recommended that you follow instead the default and updated guide for deployment in those platforms on Angular's website.

server API & database

Pandemica's REST APIs was built in ASP.NET with C#, but in order to install it, you'll need IIS Manager. The following guide applies only to Windows systems. If your solution requires another OS, contact a member of the team for individual attention.

IIS Manager Activation:

1. Open the Windows Start Menu.
2. Type **feature** and select: Turn Windows features on or off.



3. Once you're there, tick **Internet Information Services** checkbox and click **OK**. Make sure that **.NET Extensibility 4.8**, **ASP .NET 4.8** and both **ISAPI** are ticked.

REST API Installation:

1. Scan the QR Code at the back of this manual, or manually access the following link to download the latest release of our server. Also, download all required dependencies in the links below:

github.com/Schlafenhase/Pandemica/releases

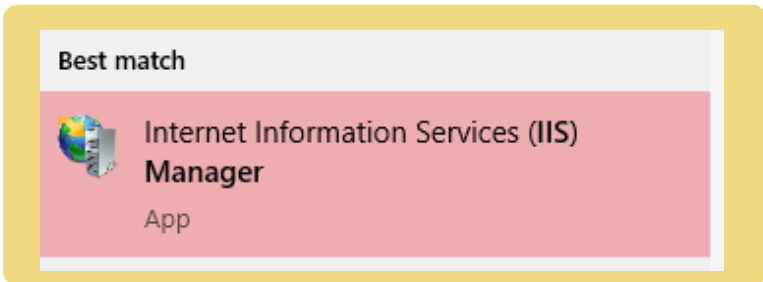
<https://bit.ly/3dYs4xF>

<https://bit.ly/3gndqSj>

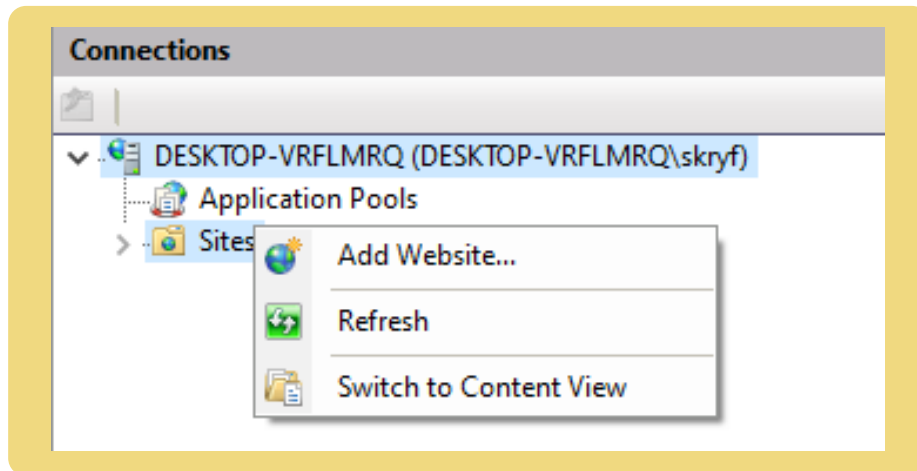
When presented with the download choice in SQL Server Express 2012, choose the following. Also, disable the Windows Firewall for optimal performance



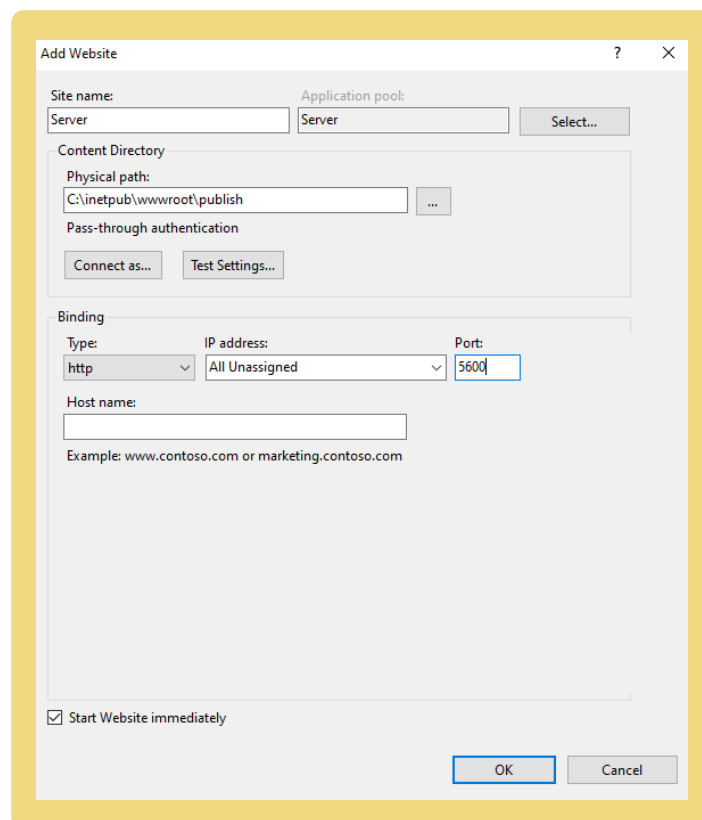
2. Unzip the file in local directory: `C:\inetpub\wwwroot`
3. Open the Windows Start Menu.
4. Type **IIS Manager** and click the following icon:



5. Right click on **Sites** and select **Add Website**.



6. In the new window that pops-up, write the site name, and in the physical path entry, search the file that you unzipped previously. Finally, choose a port that's not being used by the computer or network busy.



7. Congratulations! The REST API is now ready to use with Pandemica Second Wave.

NOTE: You'll need to repeat the process for each of the APIs found on the API folder, these are **DBManager** and **Reports**.

DATABASE INSTALLATION

1. Download the latest version of Microsoft SQL Server and SQL Server Management Studio (SSMS) from the links below:

<https://bit.ly/2NrMzl8>

<https://bit.ly/2Z51EVs>

2. Scan the QR Code at the back of this manual, or manually access the following link to download the latest release of the database creation scripts.

github.com/Schlafenhase/Pandemica/releases

3. Next, double click the file **run.bat**

4. The script will run for a few seconds. Finally press any key to exit.

6. Hooray! The database is now ready to use with Pandemica.

NOTE: This guide only covers the deployment of the local Microsoft SQL Server database, as the PostgreSQL and MongoDB databases associated with **health center+** are already deployed in the cloud and connected to the application.

client website



IIS DEPLOYMENT

This guide applies for deployment using IIS on Microsoft Windows OS on the same machine the server/database that runs the API & database. If you require a different solution, contact a member of the team for individual attention, or read the section titled **MANUAL DEPLOYMENT**, found below.

1. Scan the QR Code at the back of this manual, or manually access the following link to download the latest release of Pandemica website client:

github.com/Schlafenhase/Pandemica/releases

2. Unzip the file in local directory: **C:\inetpub\wwwroot**

3. You should be able to access the website on **localhost/Pandemica/** using the browser of your choice. From here it's possible to deploy on a personal domain using IIS.

MANUAL DEPLOYMENT

The first step is to install the required tools to run the Angular framework locally. You'll need a consistent internet connection to download the necessary tools for web deployment.

Install **NodeJS** from the official website. Either the latest or stable build will work. If the machine you're using to deploy the app is running Windows or macOS, NodeJS comes with a simple installer. For Linux kernel based OSs, you'll need to compile the binaries for install.

```
nodejs.org
```

NodeJS comes with a package manager called **npm**, this will be used to install Angular on your machine. Once NodeJS is installed, run the following command on a Terminal window or the equivalent app to install the Angular web framework.

```
$ npm install -g @angular/cli
```

Next, navigate using the **cd** command (change directory) to the **Web** folder in the downloaded project structure, outlined in the first part of this guide. Run the following command to install project dependencies using npm.

```
$ npm i
```

Once all dependencies are downloaded, run the following command to ensure everything works as expected.

```
$ ng serve
```

The Angular web application will be available at the address **localhost:4200**. If it doesn't visualize correctly, or there's an error with some external dependency, contact a member of our support team for assistance.

Once you made sure everything is in order, run the command below to compile a deployment version calibrated to your domain.

```
$ ng build --prod --base-href "your_domain_here"
```

Replace **your_domain_here** with the actual web address of deployment domain. This will create a new folder named **dist** inside the Web folder structure hierarchy. The files inside this new directory are already assigned to your domain.

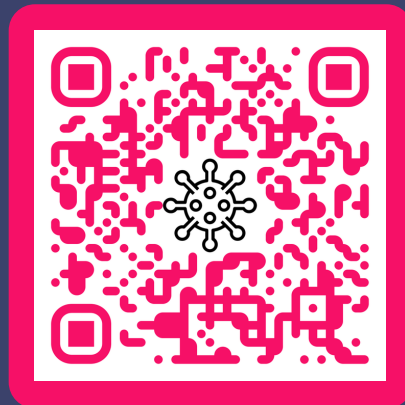
From here it's just a matter of pushing the compiled website code to the hosting server. This step will depend on your specific hosting solution.

Download this project's
latest release on GitHub



scan me

Experience a live version
of this project



pandemica
second wave 

**installation &
deployment guide**

Schlafenhase. 2020



schlafenhase