

# PostgreSQL Installation Guide

Version 1

Updated March 2018



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# Introduction

## PostgreSQL Overview

The follow is an excerpt from the <https://www.postgresql.org/> site at the time this document was created.

“PostgreSQL is a powerful, open source object-relational database system. It has more than 15 years of active development and a proven architecture that has earned it a strong reputation for reliability, data integrity, and correctness. It runs on all major operating systems, including Linux, UNIX (AIX, BSD, HP-UX, macOS, Solaris), and Windows. It is fully ACID compliant, has full support for foreign keys, joins, views, triggers, and stored procedures (in multiple languages). It includes most SQL:2008 data types, including INTEGER, NUMERIC, BOOLEAN, CHAR, VARCHAR, DATE, INTERVAL, and TIMESTAMP. It also supports storage of binary large objects, including pictures, sounds, or video.”

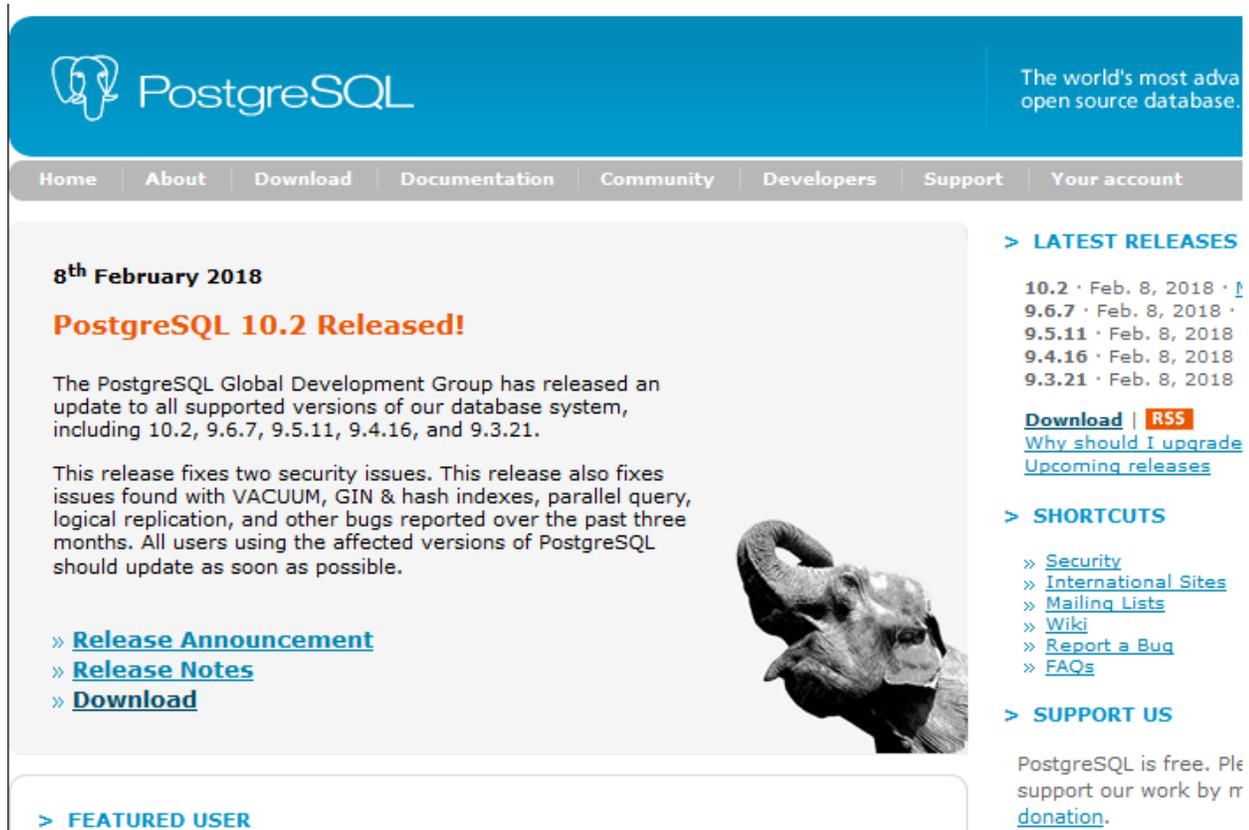
<b>Limit</b>	<b>Value</b>
Maximum Database Size	Unlimited
Maximum Table Size	32 TB
Maximum Row Size	1.6 TB
Maximum Field Size	1 GB
Maximum Rows per Table	Unlimited
Maximum Columns per Table	250 - 1600 depending on column types
Maximum Indexes per Table	Unlimited

# Downloading PostgreSQL

This section guides you through the downloading of the PostgreSQL database and admin tool from the PostgreSQL website.

## Step 1: Accessing the URL

Browse to address <https://www.postgresql.org/> (if the URL has become outdated, just search for “PostgreSQL download” on Google.) You will see a screen similar to the following:



The screenshot shows the PostgreSQL website homepage. At the top, there is a blue header with the PostgreSQL logo and the text "The world's most advanced open source database." Below the header is a navigation menu with links for Home, About, Download, Documentation, Community, Developers, Support, and Your account. The main content area features a large announcement for PostgreSQL 10.2, dated 8th February 2018. The announcement text states that the PostgreSQL Global Development Group has released an update to all supported versions of the database system, including 10.2, 9.6.7, 9.5.11, 9.4.16, and 9.3.21. It also mentions that this release fixes two security issues and other bugs. To the right of the announcement is a small image of an elephant's head. Below the announcement are three links: "Release Announcement", "Release Notes", and "Download". On the right side of the page, there are three sections: "LATEST RELEASES" listing versions 10.2, 9.6.7, 9.5.11, 9.4.16, and 9.3.21; "SHORTCUTS" with links to Security, International Sites, Mailing Lists, Wiki, Report a Bug, and FAQs; and "SUPPORT US" with a link to a donation page.

**8<sup>th</sup> February 2018**

## PostgreSQL 10.2 Released!

The PostgreSQL Global Development Group has released an update to all supported versions of our database system, including 10.2, 9.6.7, 9.5.11, 9.4.16, and 9.3.21.

This release fixes two security issues. This release also fixes issues found with VACUUM, GIN & hash indexes, parallel query, logical replication, and other bugs reported over the past three months. All users using the affected versions of PostgreSQL should update as soon as possible.

- » [Release Announcement](#)
- » [Release Notes](#)
- » [Download](#)

**> LATEST RELEASES**

- 10.2 · Feb. 8, 2018 · [Download](#)
- 9.6.7 · Feb. 8, 2018 · [Download](#)
- 9.5.11 · Feb. 8, 2018 · [Download](#)
- 9.4.16 · Feb. 8, 2018 · [Download](#)
- 9.3.21 · Feb. 8, 2018 · [Download](#)

[Download](#) | [RSS](#)

[Why should I upgrade](#)

[Upcoming releases](#)

**> SHORTCUTS**

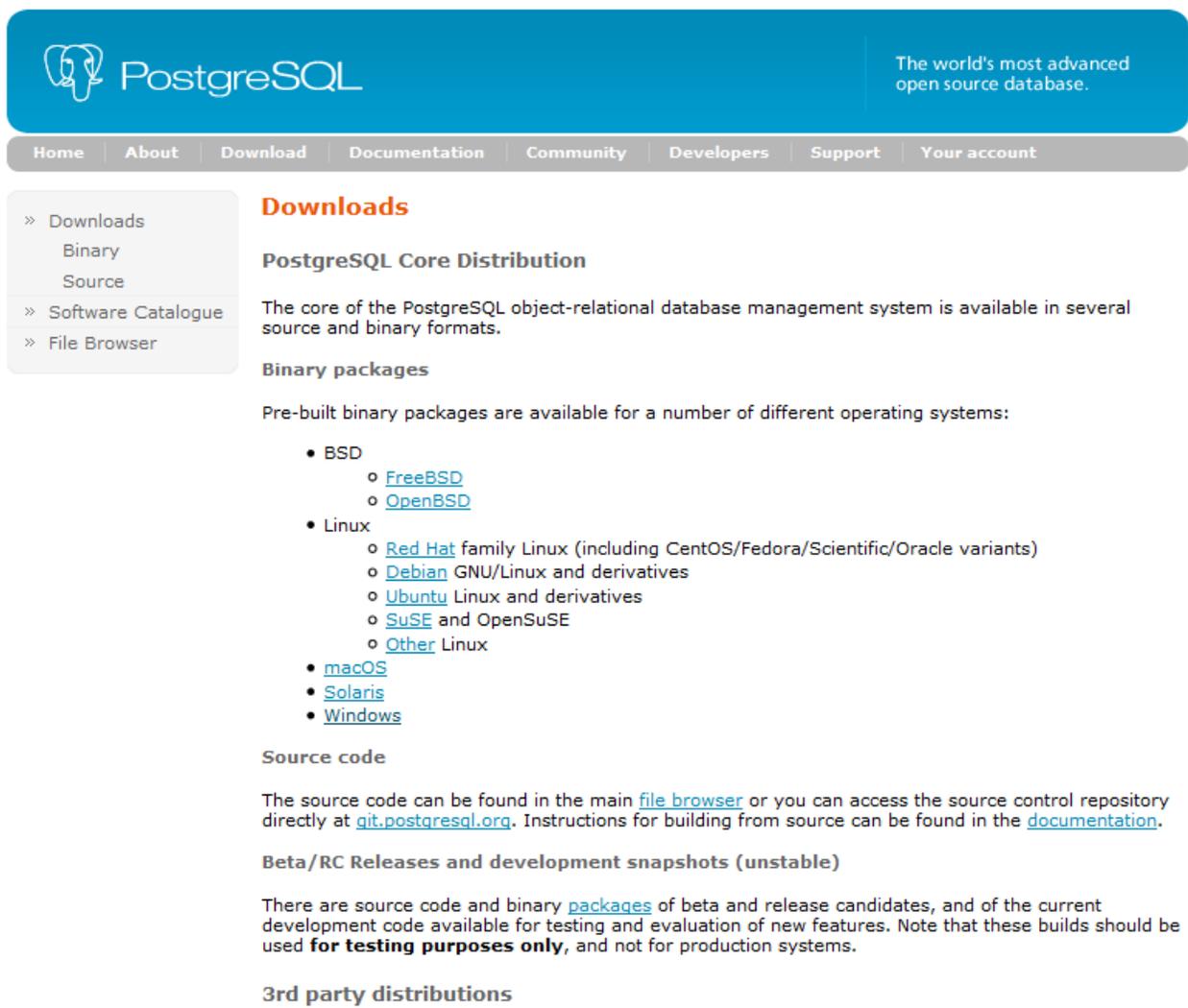
- » [Security](#)
- » [International Sites](#)
- » [Mailing Lists](#)
- » [Wiki](#)
- » [Report a Bug](#)
- » [FAQs](#)

**> SUPPORT US**

PostgreSQL is free. Please support our work by [making a donation](#).

## Step 2: Download page and options

From this page you will see there are several supported options for downloading pre-built packages for a number of operating systems and VM Options.



The screenshot shows the PostgreSQL website's 'Downloads' page. At the top, there is a blue header with the PostgreSQL logo and the tagline 'The world's most advanced open source database.' Below the header is a navigation bar with links for Home, About, Download, Documentation, Community, Developers, Support, and Your account. On the left side, there is a sidebar menu with options: Downloads (selected), Binary, Source, Software Catalogue, and File Browser. The main content area is titled 'Downloads' and features a sub-section 'PostgreSQL Core Distribution' with a paragraph explaining that the core is available in source and binary formats. Below this is a section for 'Binary packages' which lists pre-built packages for various operating systems: BSD (FreeBSD, OpenBSD), Linux (Red Hat family, Debian, Ubuntu, SuSE, Other), macOS, Solaris, and Windows. There is also a section for 'Source code' with links to the file browser and documentation. A section for 'Beta/RC Releases and development snapshots (unstable)' mentions testing purposes only. Finally, there is a section for '3rd party distributions'.

**PostgreSQL** The world's most advanced open source database.

Home | About | Download | Documentation | Community | Developers | Support | Your account

» Downloads  
Binary  
Source  
» Software Catalogue  
» File Browser

### Downloads

#### PostgreSQL Core Distribution

The core of the PostgreSQL object-relational database management system is available in several source and binary formats.

#### Binary packages

Pre-built binary packages are available for a number of different operating systems:

- BSD
  - [FreeBSD](#)
  - [OpenBSD](#)
- Linux
  - [Red Hat](#) family Linux (including CentOS/Fedora/Scientific/Oracle variants)
  - [Debian](#) GNU/Linux and derivatives
  - [Ubuntu](#) Linux and derivatives
  - [SuSE](#) and OpenSuSE
  - [Other](#) Linux
- [macOS](#)
- [Solaris](#)
- [Windows](#)

#### Source code

The source code can be found in the main [file browser](#) or you can access the source control repository directly at [git.postgresql.org](http://git.postgresql.org). Instructions for building from source can be found in the [documentation](#).

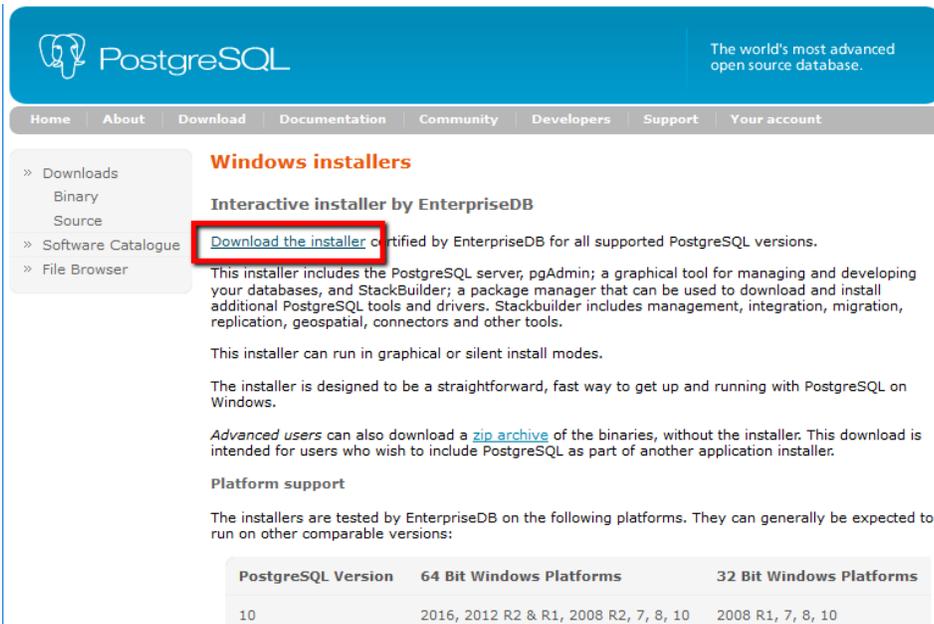
#### Beta/RC Releases and development snapshots (unstable)

There are source code and binary [packages](#) of beta and release candidates, and of the current development code available for testing and evaluation of new features. Note that these builds should be used **for testing purposes only**, and not for production systems.

#### 3rd party distributions

### Step 3: Windows Installers by EnterpriseDB

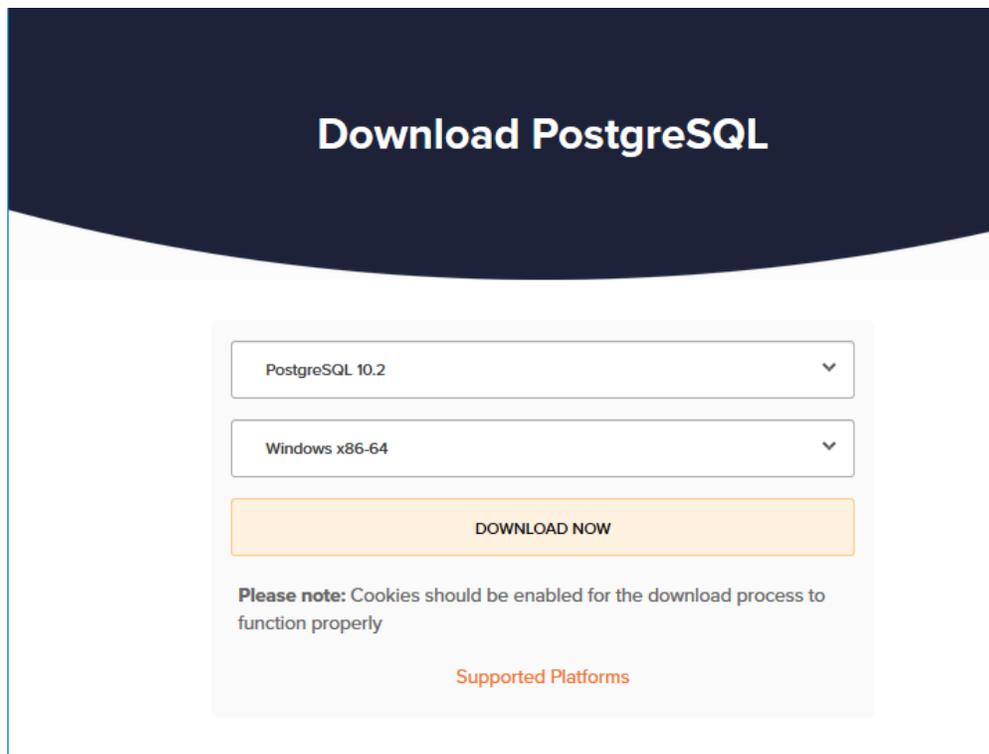
This is a packaged installation that includes both the PostgreSQL DB and pgAdmin tool. Alternatively, the DB binaries can be downloaded and installed and then separately download a SQL tool of choice for connecting to the DB and SQL coding.



The screenshot shows the PostgreSQL website's "Windows installers" page. The page title is "Windows installers" and it features a sub-heading "Interactive installer by EnterpriseDB". A red box highlights the link "Download the installer". Below this, there is a description of the installer, which includes the PostgreSQL server, pgAdmin, and StackBuilder. A table titled "Platform support" lists supported PostgreSQL versions and Windows platforms.

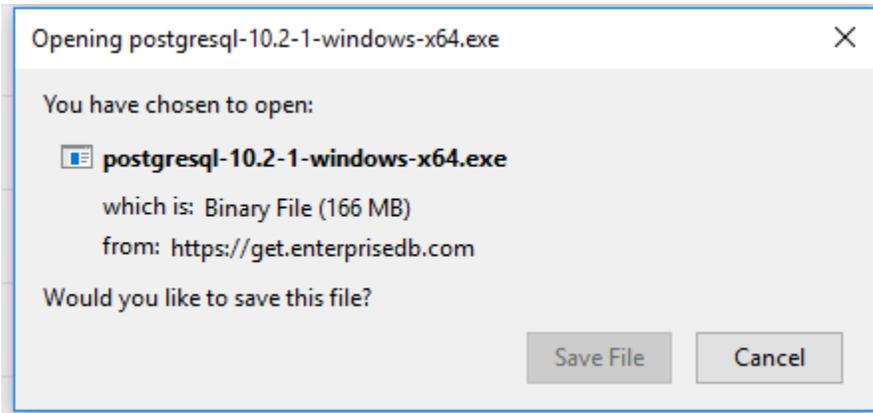
PostgreSQL Version	64 Bit Windows Platforms	32 Bit Windows Platforms
10	2016, 2012 R2 & R1, 2008 R2, 7, 8, 10	2008 R1, 7, 8, 10

This will take you to <https://www.enterprisedb.com/downloads/postgres-postgresql-downloads> to perform the download. Here you will select the DB version and the OS version for the download:



The screenshot shows the "Download PostgreSQL" page. It features a dark blue header with the text "Download PostgreSQL". Below the header, there are two dropdown menus: the first is set to "PostgreSQL 10.2" and the second is set to "Windows x86-64". Below the dropdowns is a large orange button labeled "DOWNLOAD NOW". At the bottom, there is a note: "Please note: Cookies should be enabled for the download process to function properly" and a link for "Supported Platforms".

### Save the file to local folder for execution

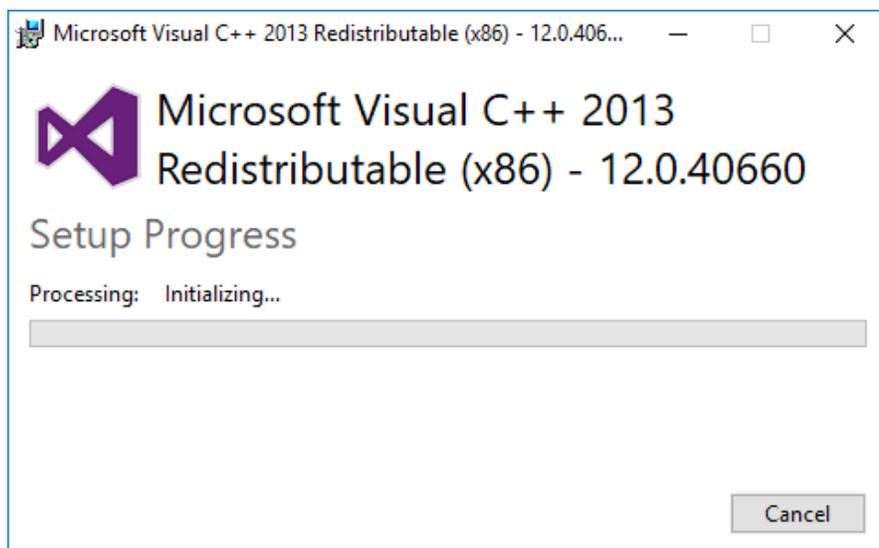
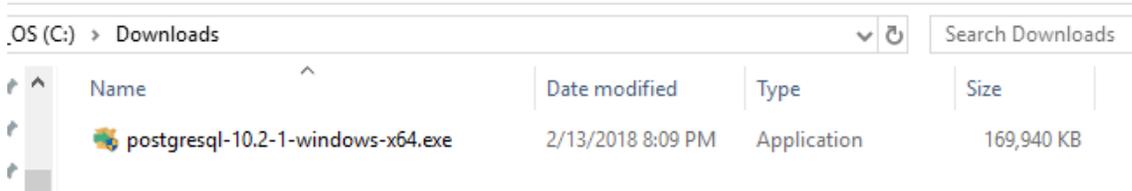


## Installing PostgreSQL

Now that you've downloaded the installer, you'll need to execute the installation program and follow the prompts during the installation. Accept the defaults unless there are specific needs and requirements for your personal computer.

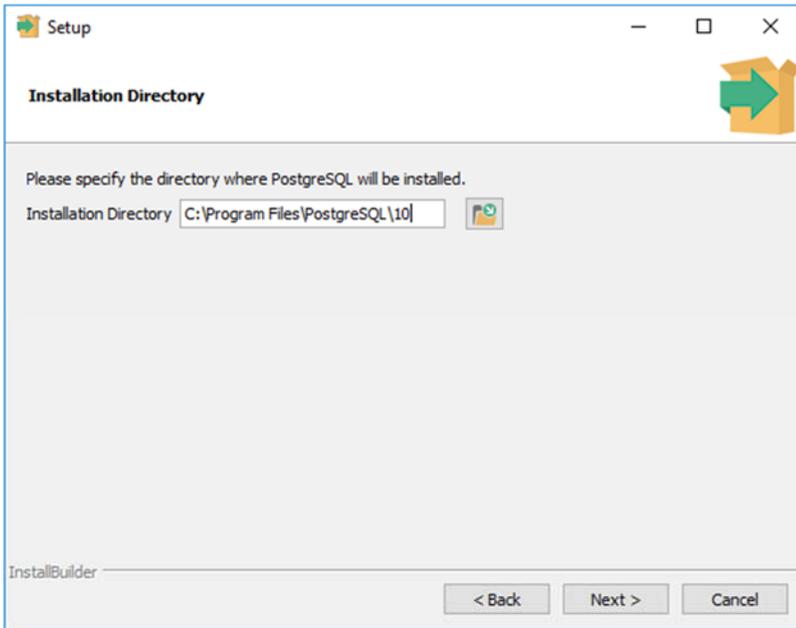
### Step 4: Starting the Installer

Navigate to the download folder where the exe file was saved and execute the file. Once the installer starts up it may run MS Visual C++ precheck and install.

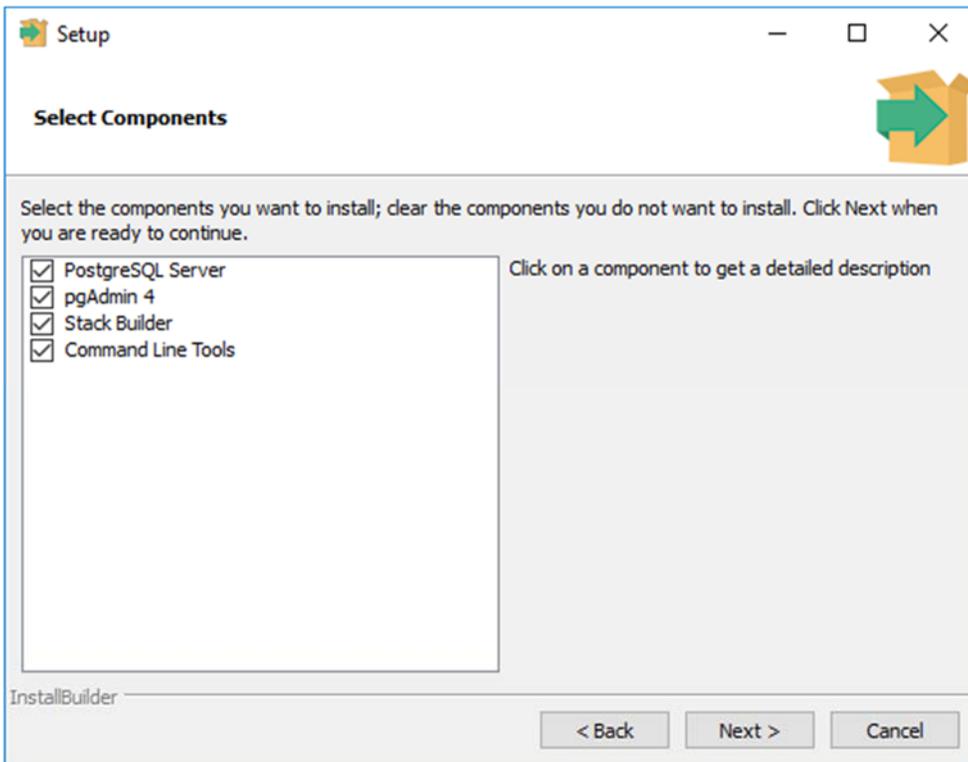


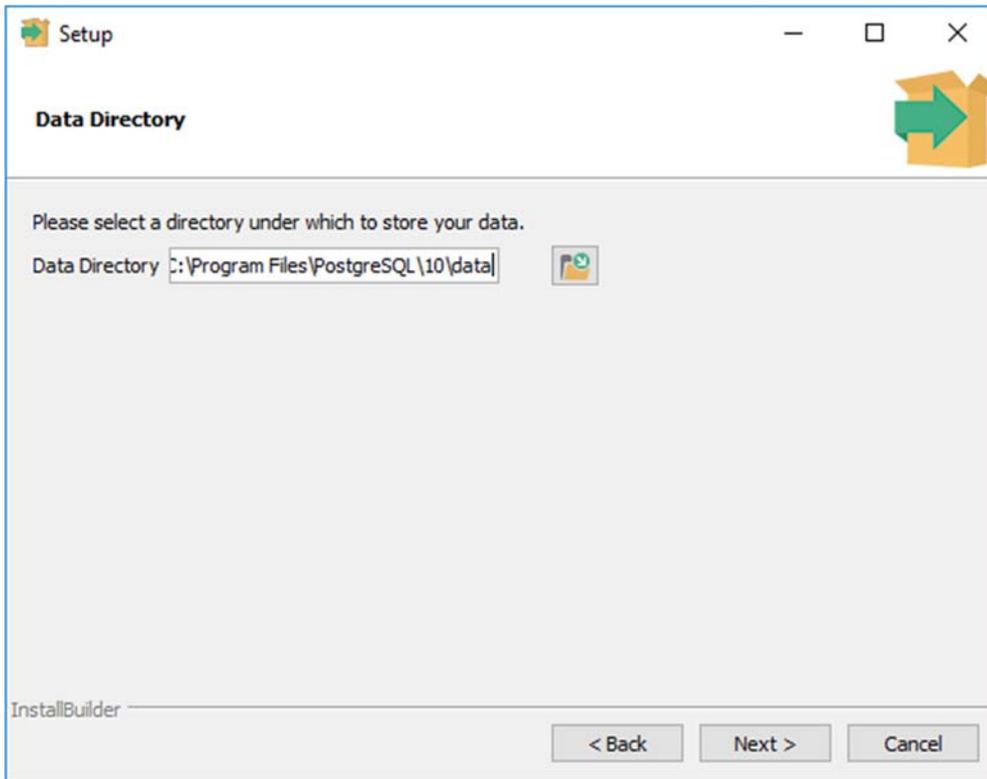
## Step 5: Progress Through the Installation Wizard

The following are installation screens from the wizard for version 10.

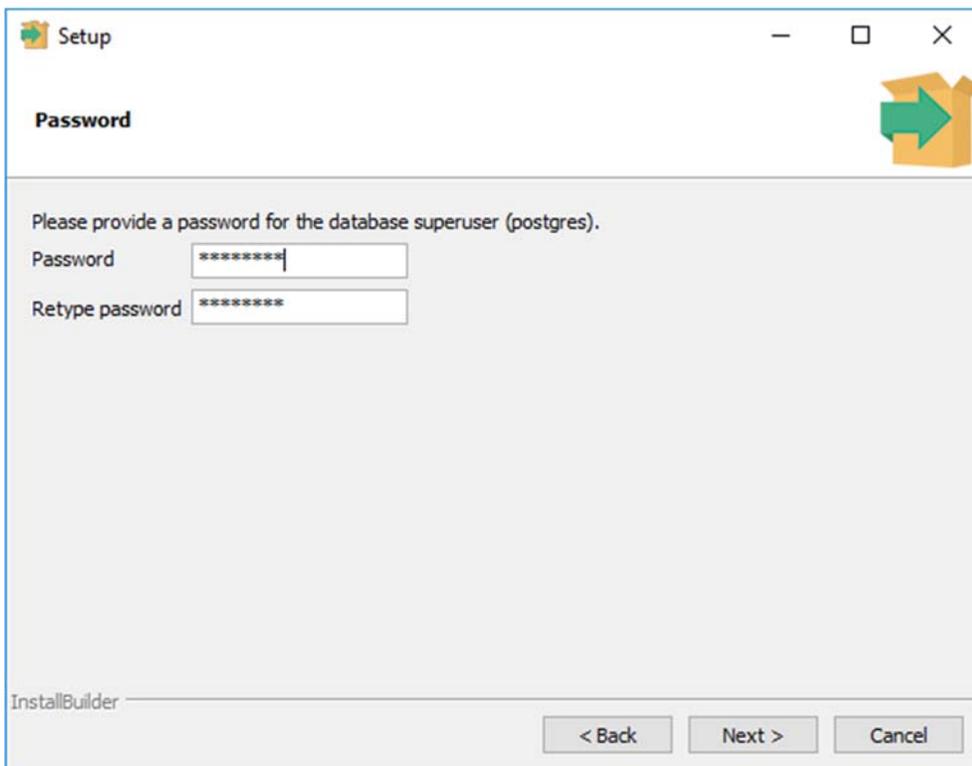


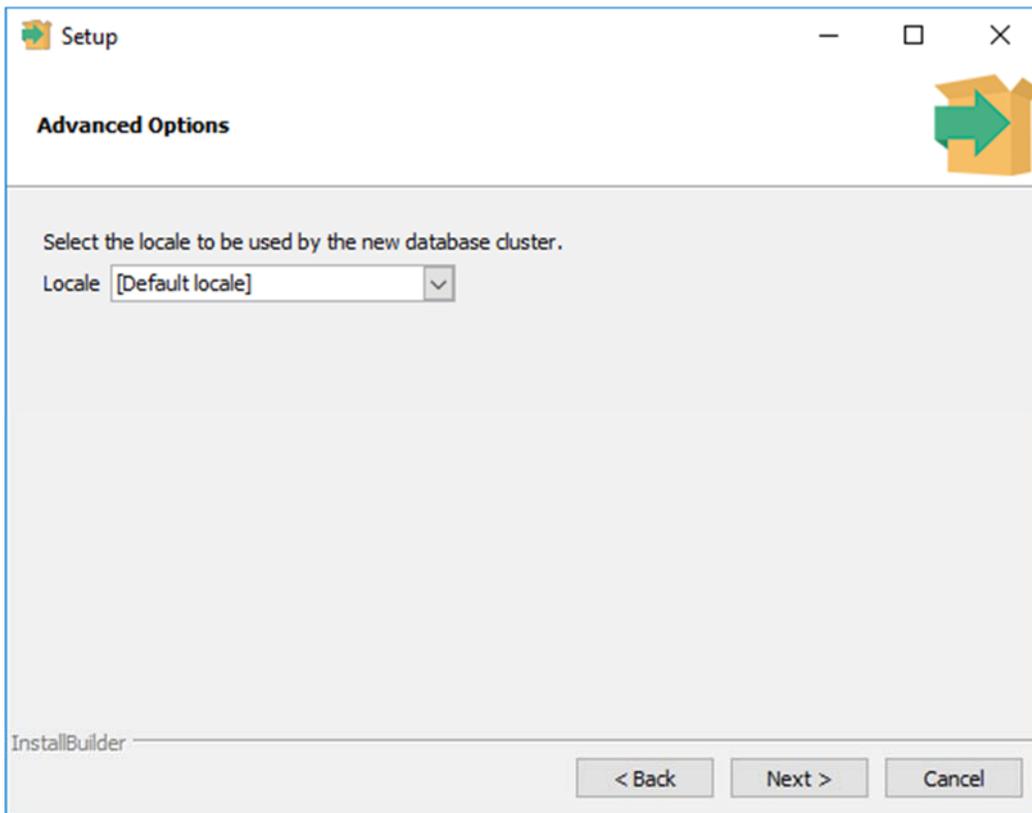
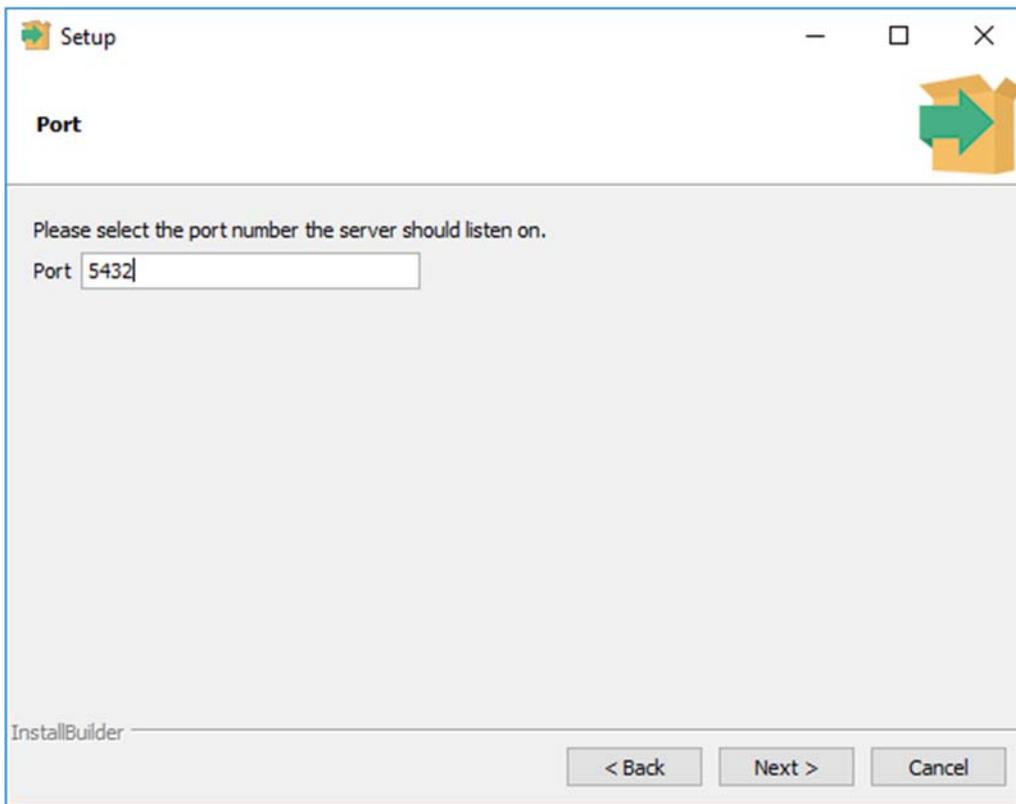
Keep pgAdmin check for install unless you have a specific SQL development tool you want to use.



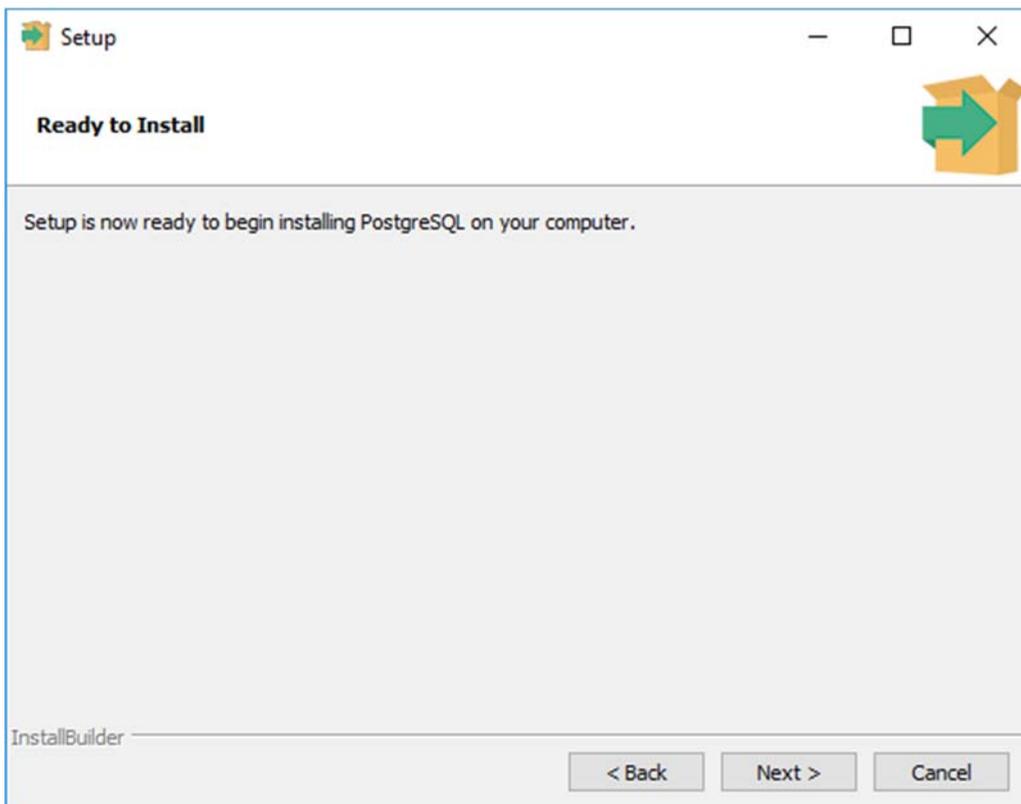
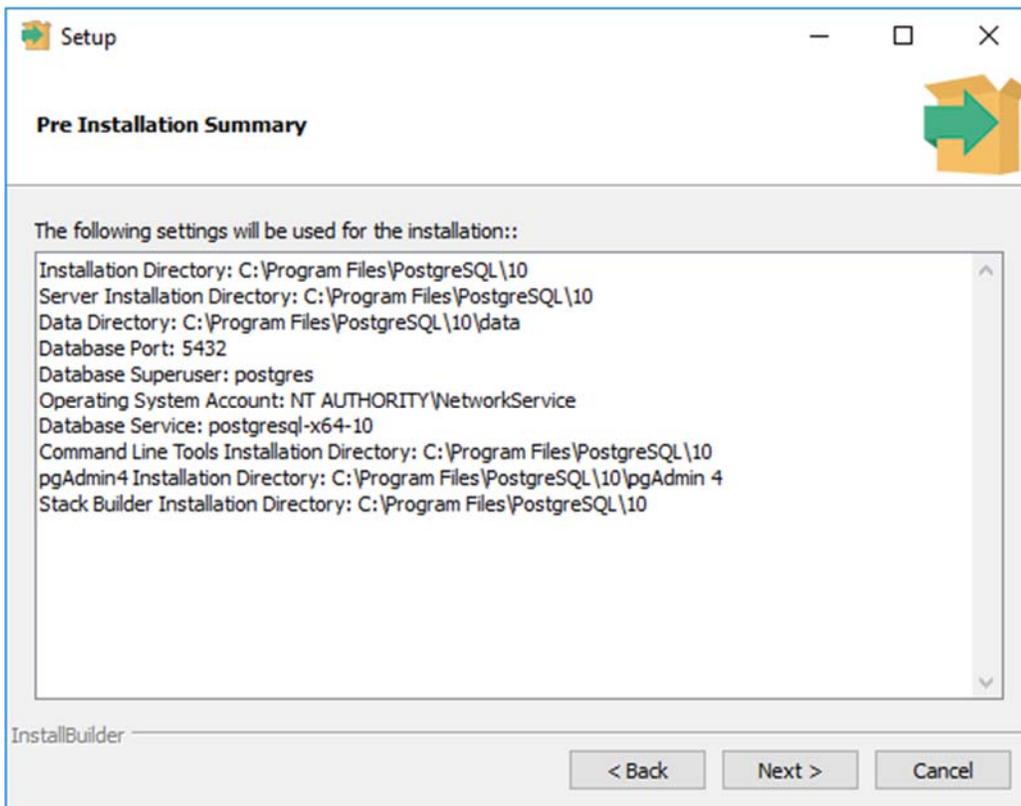


**\*\* Enter an initial password for the default postgres user. (i.e. password = BU669)**

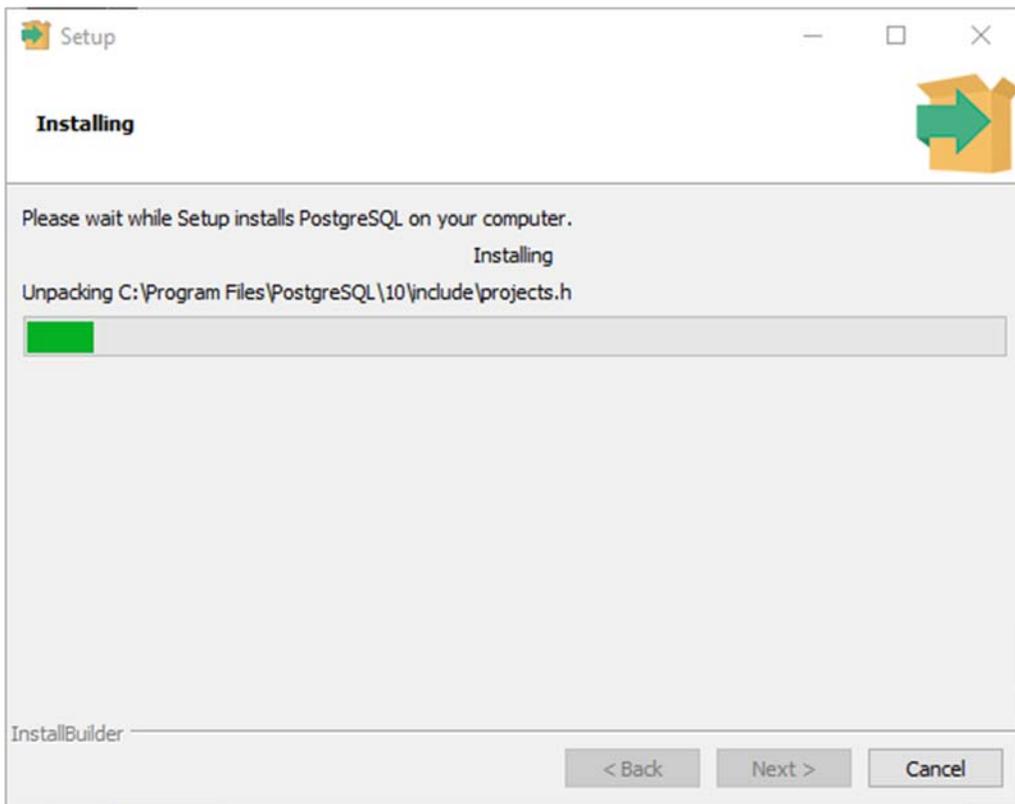




**Recommendation is to copy this screen for reference later.**

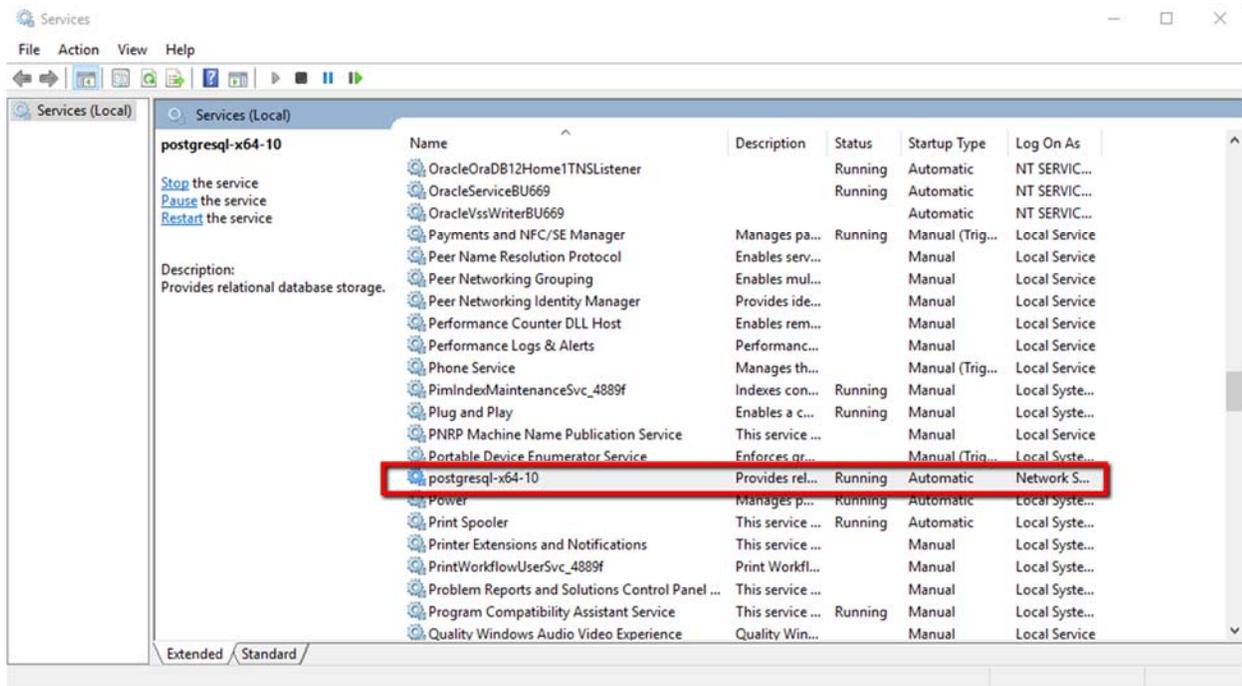


Now allow the installer to run.



## Step 6: Check that PostgreSQL Service

Once the wizard has completed you should check that the PostgreSQL DB is running. Navigate to 'Services' and look for postgresql-x64-10 (or the appropriate service for the DB version installed) and verify the status is 'Running'

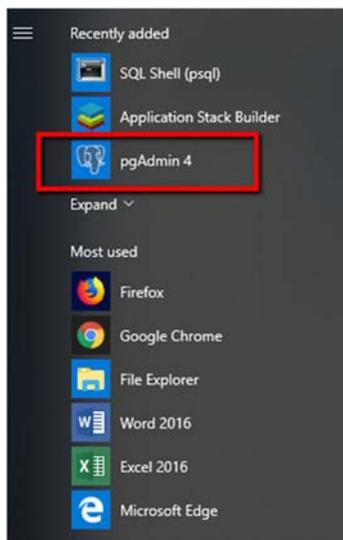


## Starting pgAdmin and connecting to DB

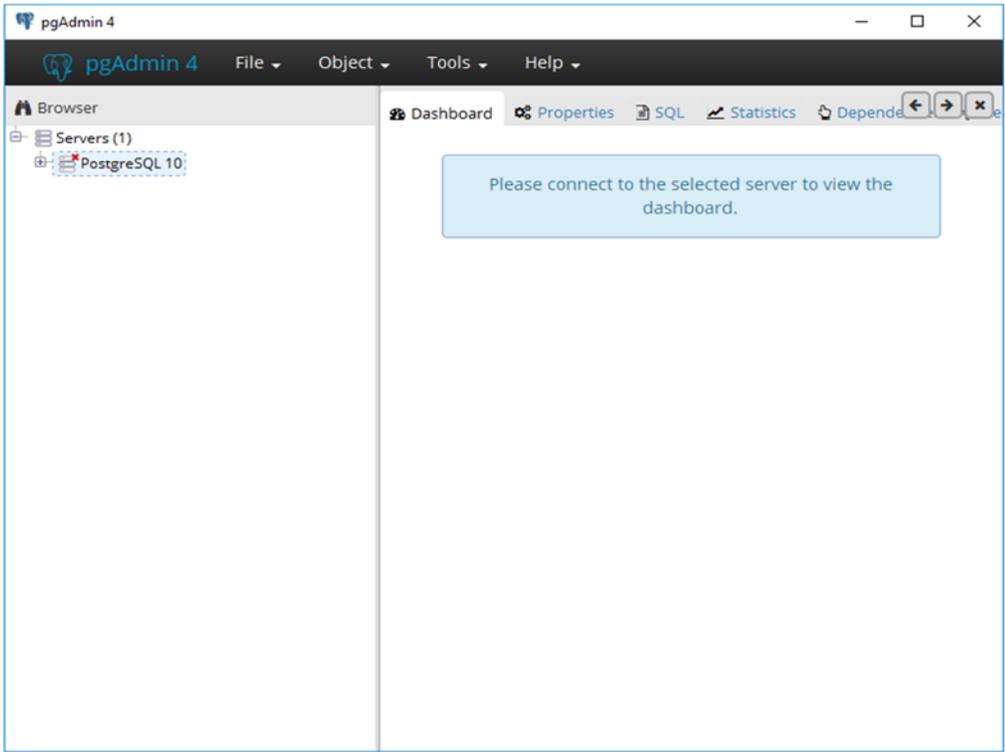
The following section will step through opening up the pgAdmin tool and making an initial connection to the DB.

## Step 7: Start pgAdmin

Navigate to pgAdmin and open the application; here we are using version 4

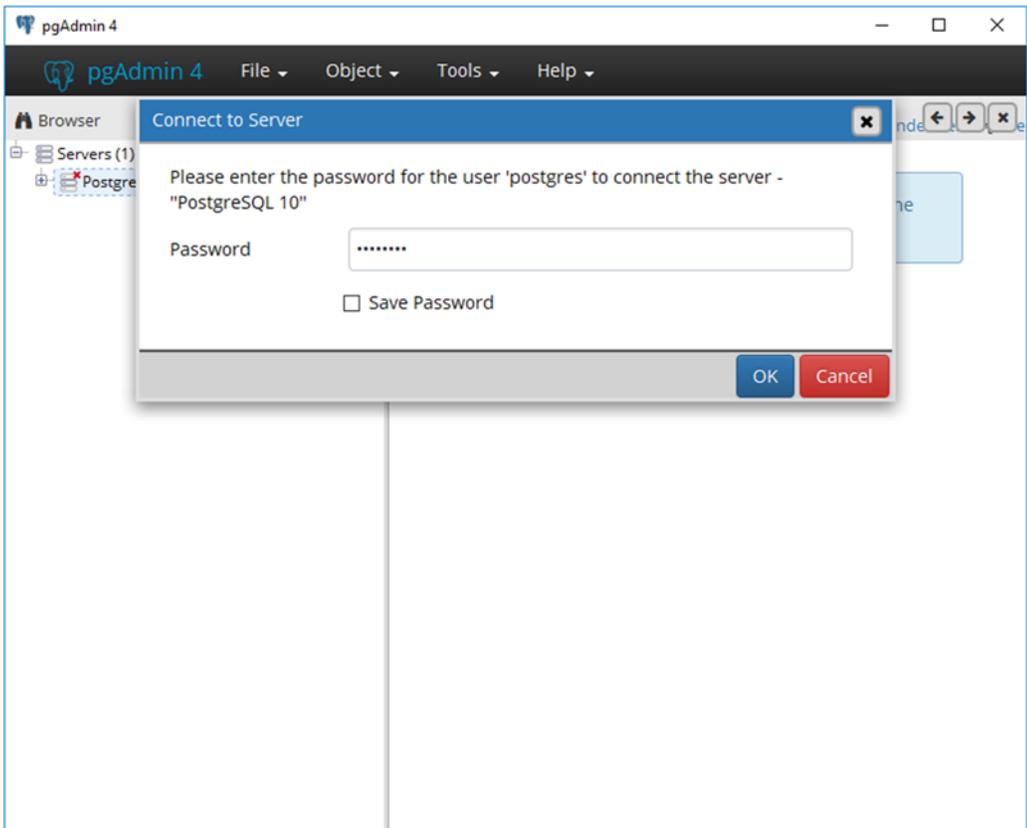


Once the application is started you should see a screen similar to this:



### Step 8: Connect to DB

Double click on the server title 'PostgreSQL 10' or right-click and select connect to server. Then enter the password that was entered during the installation process for the initial postgres user.



The screenshot shows the pgAdmin 4 web interface. At the top is a dark header with the pgAdmin 4 logo and the text "pgAdmin 4". Below the header is a navigation bar with "File", "Object", "Tools", and "Help" menus. On the left is a "Browser" pane showing a tree view of "Servers (1)" containing "PostgreSQL 10". Under "PostgreSQL 10", there are expandable sections for "Databases", "Login/Group Roles", and "Tablespaces". The "PostgreSQL 10" node is highlighted with a dashed blue border. On the right, there are tabs for "Dashboard", "Properties", and "SQL". Below the tabs is a toolbar with icons for folder, save, search, and print. A blue header bar displays the connection string "postgres on postgres@PostgreSQL 10". Below this, a table with one row and one column contains the number "1".