# Getting Started

## Installation

### Installing a CockroachDB client

You’ll need a CockroachDB compatible client on your system in order to connect to a CockroachDB server wherever it might be….

#### The official CockroachDB client

The CockroachDB client is built into the CockroachDB binary which can be installed on any platform.

* Installing on Mac
* Installing on Windows
* Installing on Linux

#### PostgreSQL clients

Because CockroachDB is compatible with PostgreSQL, you may already have a compatible client installed. The `pg` client works fine with CockroachDB, although the CockroachDB client is preferred.

* Brief overview of the psql client

#### GUI Clients

Many GUI clients support Postgres and some support CockroachDB directly. Here we mention a few with DBEaver probably the recommended client (?)

### Connecting to the CockroachDB cloud

CockroachCloud is the simplest way to get a CockroachDB sever up and running. CockroachDB offers a Forever-free plan which is ideal for getting started.

### Installing a local CockroachDB server

If you want to setup a local CockroachDB server it’s easy to install a single node cluster on any platform.

* Installing on Mac
* Installing on Windows
* Installing on Linux
* Installing with Docker

### Installing a test cluster

If you want to work with a CockroachDB cluster, you might want to install a K8S hosted cluster on a K8S cluster you have lying around the house or (maybe) on minikube.

* Preview of Kubernetes installation using K8S operator

### Connecting to a cluster

Now that you have a server and a cluster, it’s time to connect!

NB: We’ll have shown connection as the last step in every install tutorial, but here we’ll talk about the CockroachDB connection string and some of it’s important options

## Exploring CockroachDB

Let’s get started with CockroachDB by:

* Installing demo data using CockroachDB command line
* Listing and describing databases and tables
* Creating a table
* Issuing SELECT queries
* Inserting, updating deleting data
* Exploring the information schema

## Working with programming languages

Here we will show the simplest possible example of a program that connects to CockroachDB and selects some data. We’ll do this for:

* NodeJS
* GoLang
* Java
* Python