Installing and Running OpenMapTiles on Ubuntu (Without Docker)

This guide provides step-by-step instructions for installing and running OpenMapTiles on Ubuntu without Docker. Follow these steps to set up your environment, configure PostgreSQL, download OpenStreetMap (OSM) data, generate tiles, and serve them.

# Step 1: Install Dependencies

1. Update your system:

sudo apt-get update  
sudo apt-get upgrade

2. Install required packages:

sudo apt-get install -y git make postgresql postgis gdal osm2pgsql nodejs npm

# Step 2: Clone the OpenMapTiles Repository

Clone the OpenMapTiles repository from GitHub:

git clone https://github.com/openmaptiles/openmaptiles.git  
cd openmaptiles

# Step 3: Configure PostgreSQL

1. Create a PostgreSQL user and database:

sudo -u postgres createuser openmaptiles  
sudo -u postgres createdb -O openmaptiles openmaptiles

2. Enable PostGIS on the database:

sudo -u postgres psql -d openmaptiles -c "CREATE EXTENSION postgis;"

# Step 4: Download OSM Data

Download the relevant OSM extract (for India, you can find extracts on Geofabrik):

mkdir -p data  
wget -O data/india.osm.pbf https://download.geofabrik.de/asia/india-latest.osm.pbf

# Step 5: Run OpenMapTiles

Generate the tiles by running the OpenMapTiles quickstart script:

./quickstart.sh india

This will generate the .mbtiles file that contains the vector tiles.

# Step 6: Serve the Tiles

You can use `tileserver-gl` or another similar server to serve the tiles from the .mbtiles file:

npm install -g tileserver-gl  
tileserver-gl data/india.mbtiles

# Step 7: Access the Tiles

Once the server is running, you can access the map tiles using URLs like:

http://localhost:8080/styles/bright/{z}/{x}/{y}.png

Here, `z`, `x`, and `y` correspond to the zoom level and tile coordinates.