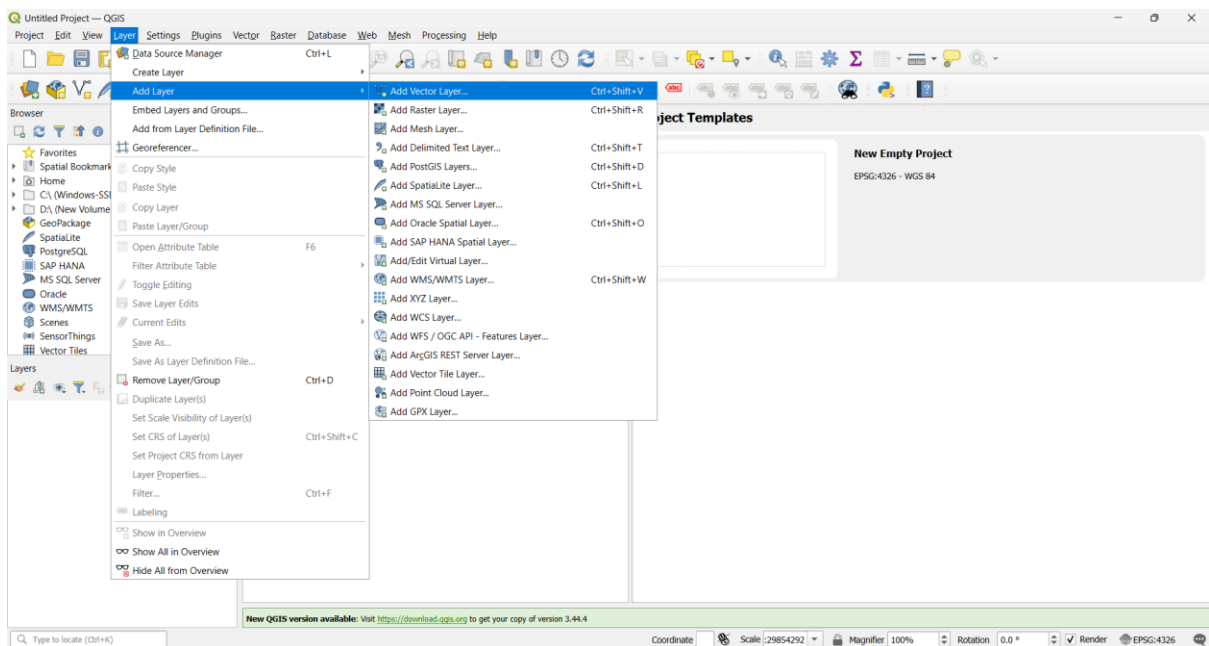
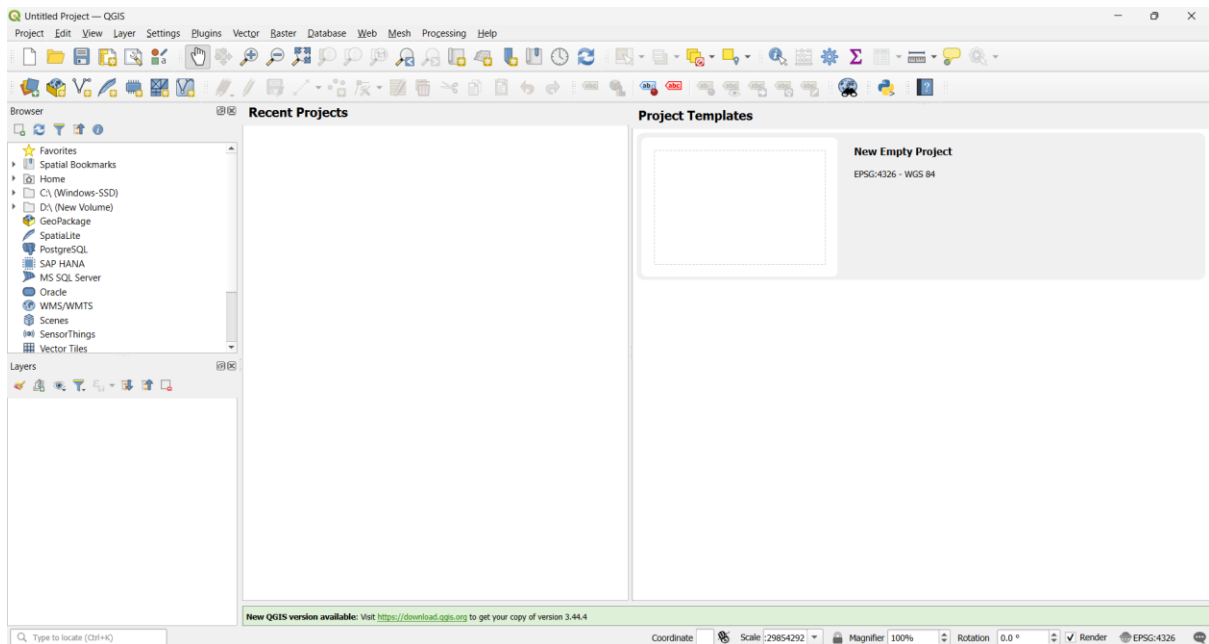
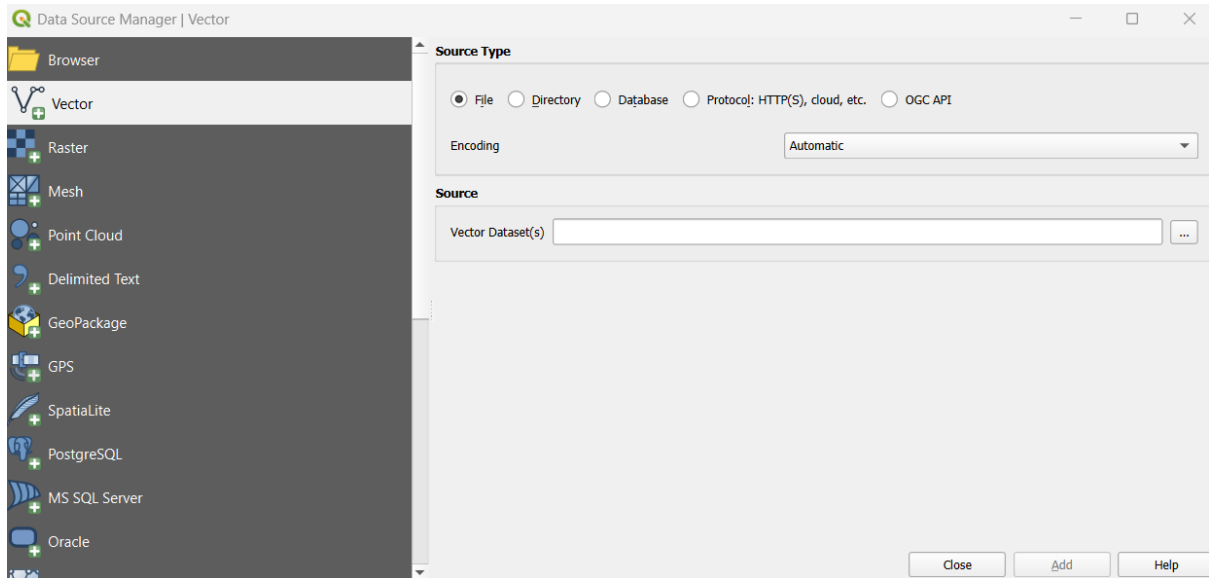
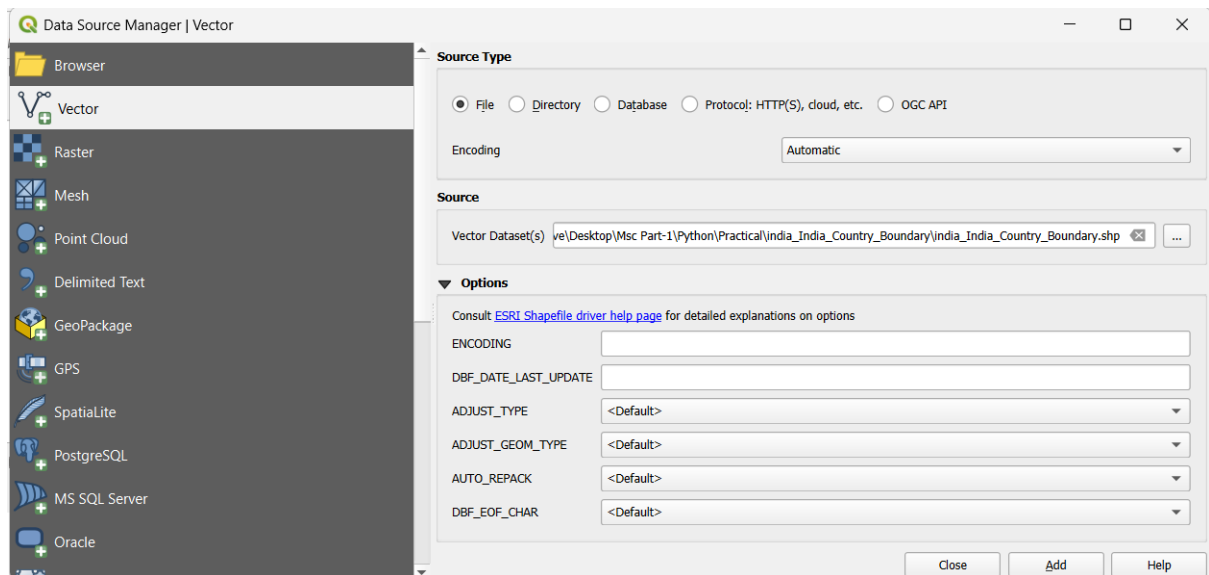


Practical 1: Exploring QGIS Interface & Loading Vector/Raster Data

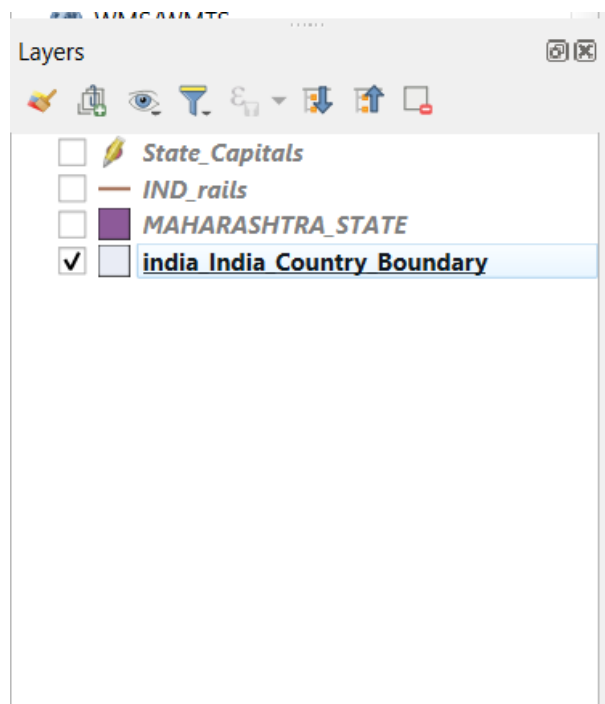
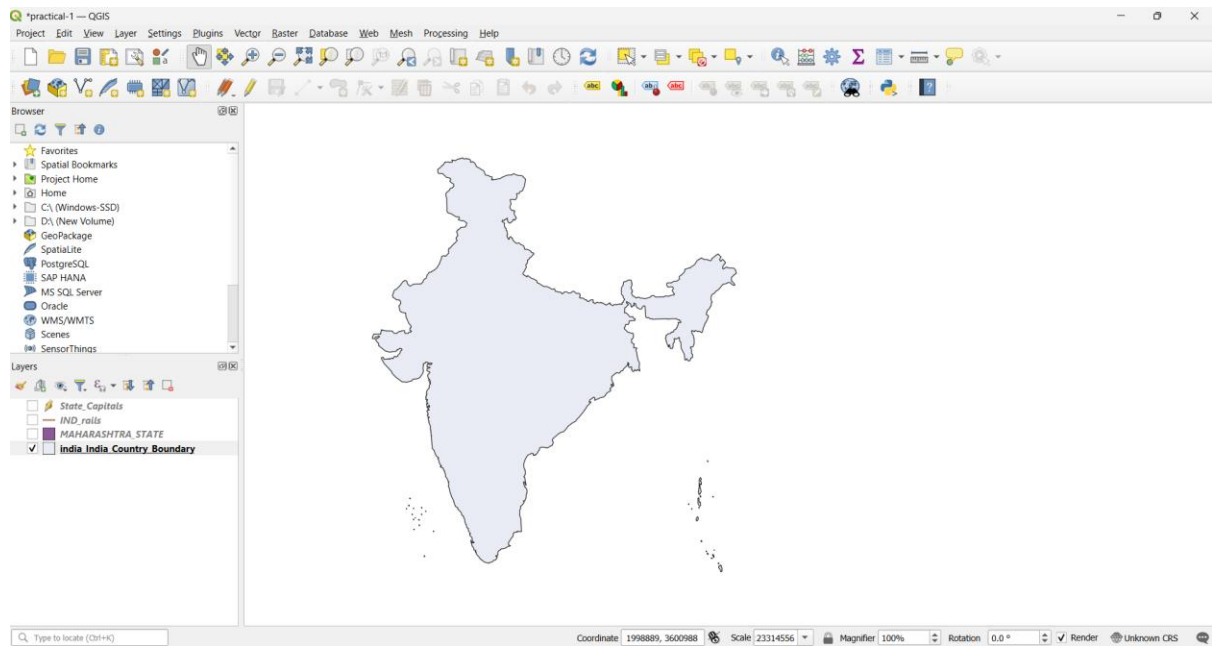




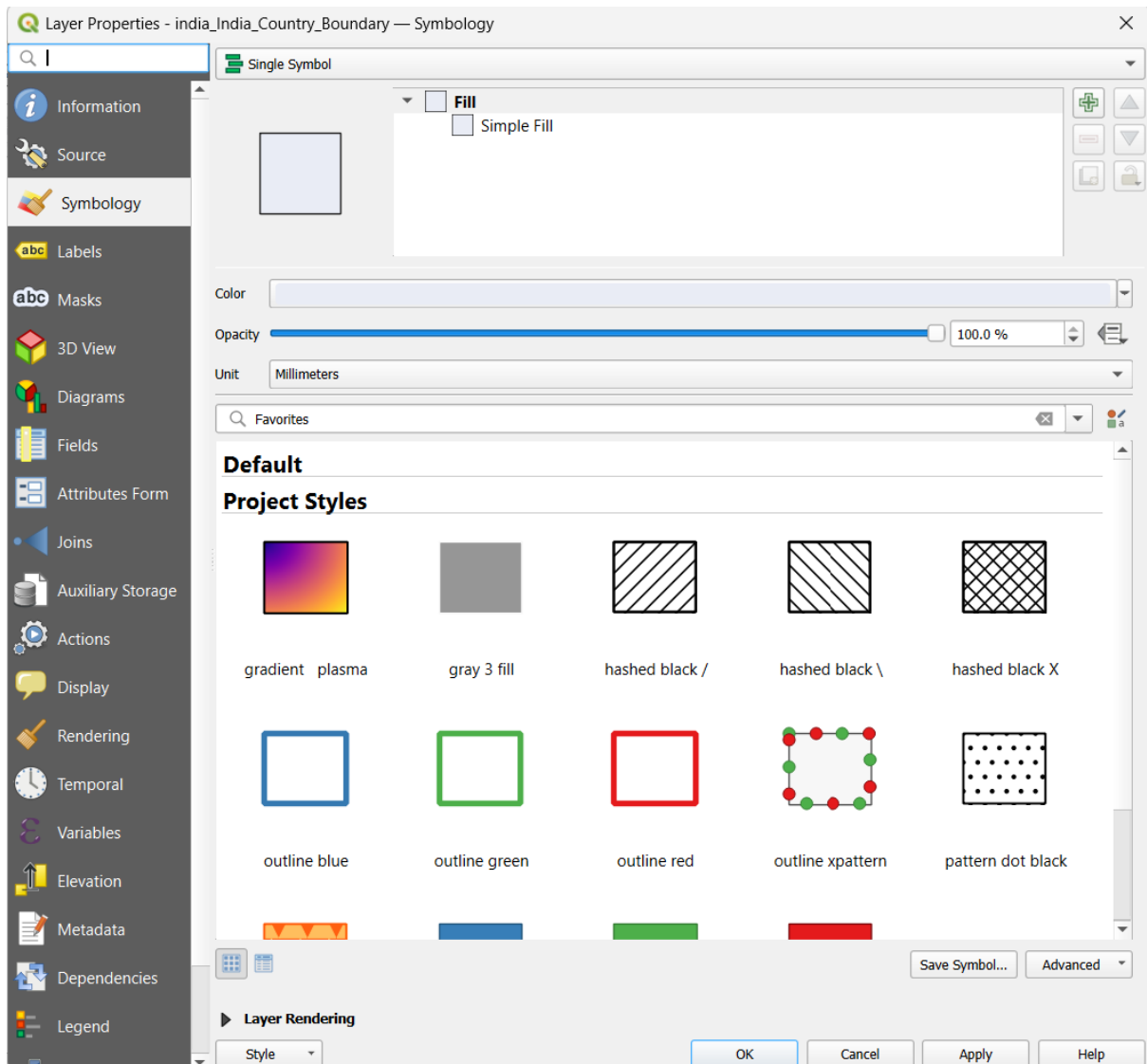
Select the required files you want to import



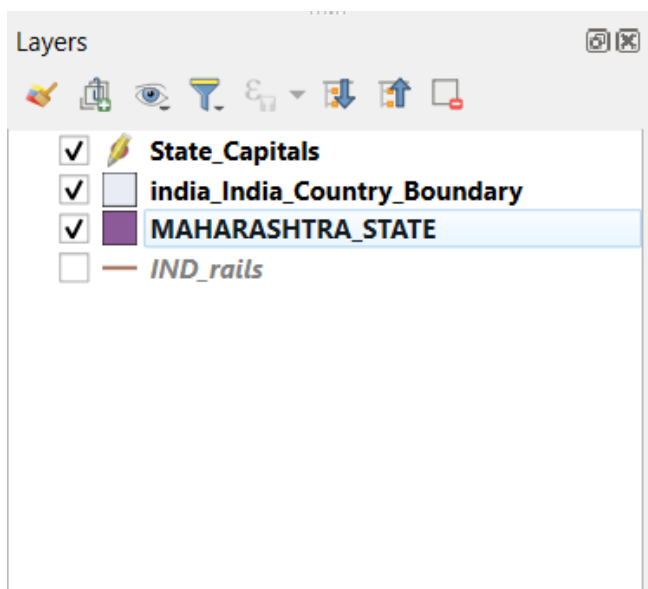
Similarly add more files in QGIS

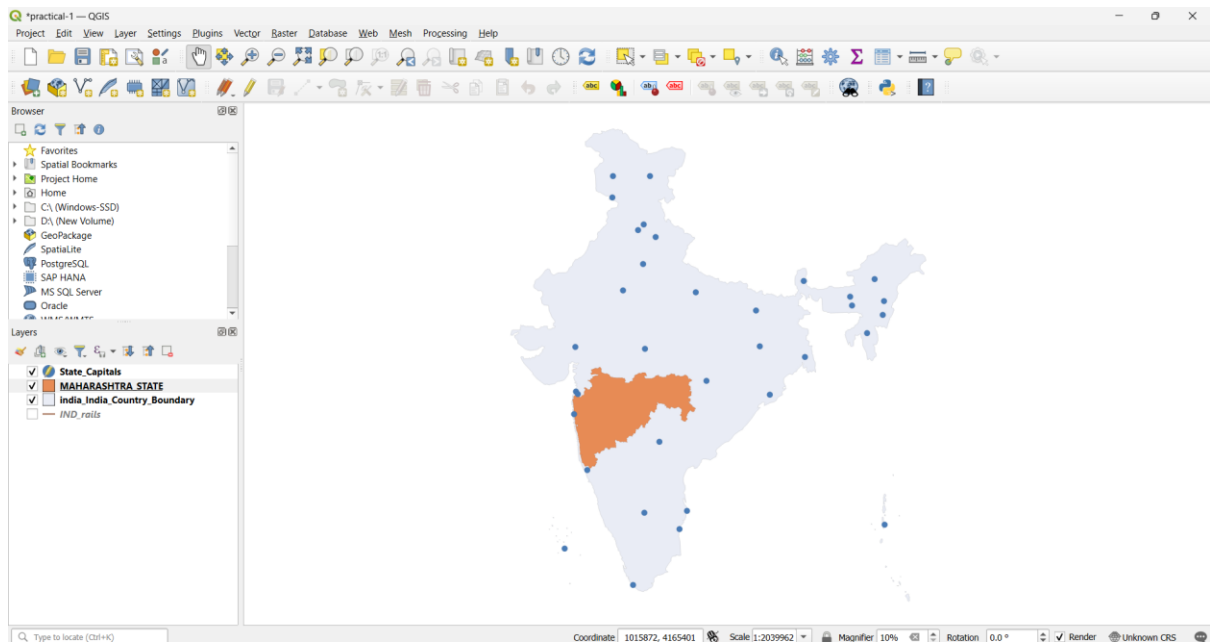


Right click on the layer and go to properties and change the color



Rearrange the layers accordingly





QGIS, or Quantum GIS, is a free and open-source geographic information system (GIS) software that allows users to create, edit, visualize, analyze, and publish geospatial information. Developed by a global community of volunteers, QGIS is renowned for its user-friendly interface, extensive functionality, and interoperability with various data formats and systems. It runs on multiple operating systems, including Windows, macOS, and Linux, making it accessible to a wide range of users.

Vector Data

- Vector data represent features on the Earth as discrete objects: **points**, **lines**, and **polygons**.
 - A **point** might represent a tree, a well, a location.
 - A **line** might represent a road, river, pipeline.
 - A **polygon** might represent an administrative boundary, a lake, an urban area.
- Vector data include **attribute data** (e.g., a state name, population) and geometry (vertices, X,Y coordinates).

Raster Data

- Raster data are grids of cells (pixels), each cell containing a value (or multiple values) representing what is at that location (elevation, land cover, satellite imagery).
- They are useful for representing **continuous** phenomena (e.g., temperature, elevation, vegetation cover) rather than discrete objects.

Also write steps in your own words about how you imported files and visualized it.