

----- Practical 0 -----

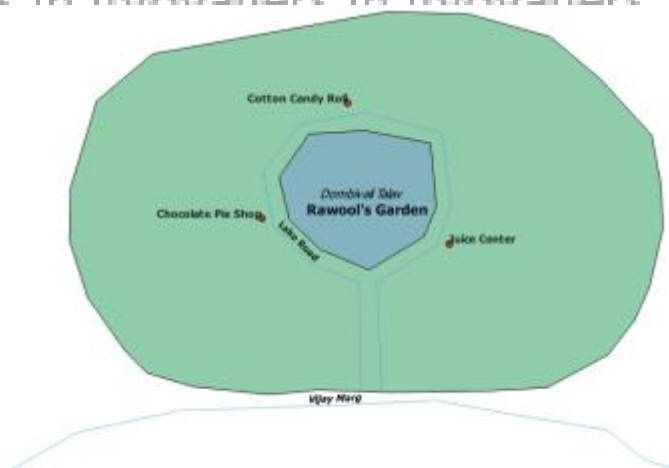
Familiarizing Quantum GIS: Installation of QGIS, datasets for both Vector and Raster data, Maps.

QGIS: Quantum Geographic Information System.

It is Open source software for creating and editing GIS data. It is supported by many platforms. QGIS provides us the tool which we can use to perform various calculation, analytical, statistical, etc. operations on our data.

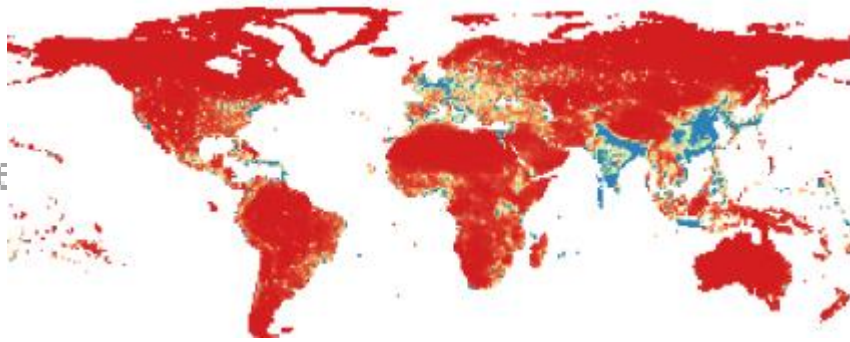
Vector Datasets:

Vector dataset are created using vertices and edges. Vector dataset has 3 basic types of data point, line and polygon. Vector dataset doesn't have grid or pixels.



Raster Dataset:

Unlike vector dataset it is completely based on grid and pixels.

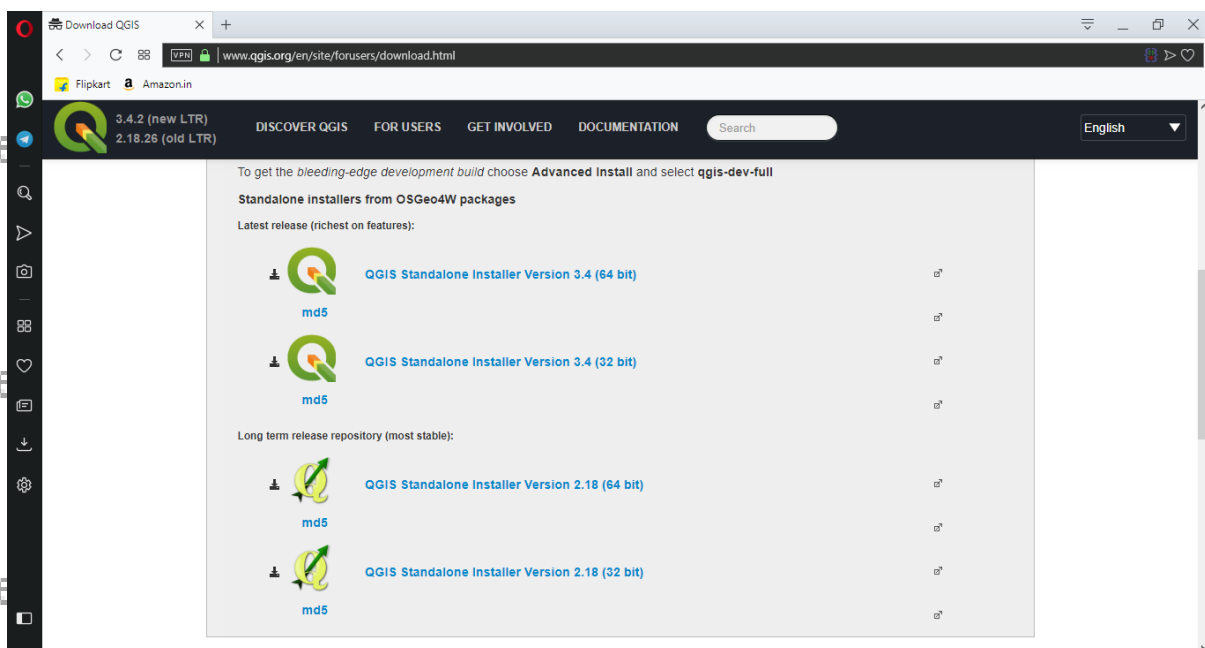


Map:

Map are the representation of the real world places with their attributes. Map is a visual database for the real world places. Maps are mostly static but now digitization led us to create more dynamic and interactive maps. Example Google map, here map, etc.

Download QGIS.

Visit this link > <https://www.qgis.org/en/site/forusers/download.html>



ITVoyagers (itvoyagers.in)

You get 2 versions 3.4(most latest) and 2.18(most stable)

Always go for most stable.

Download QGIS 2.18

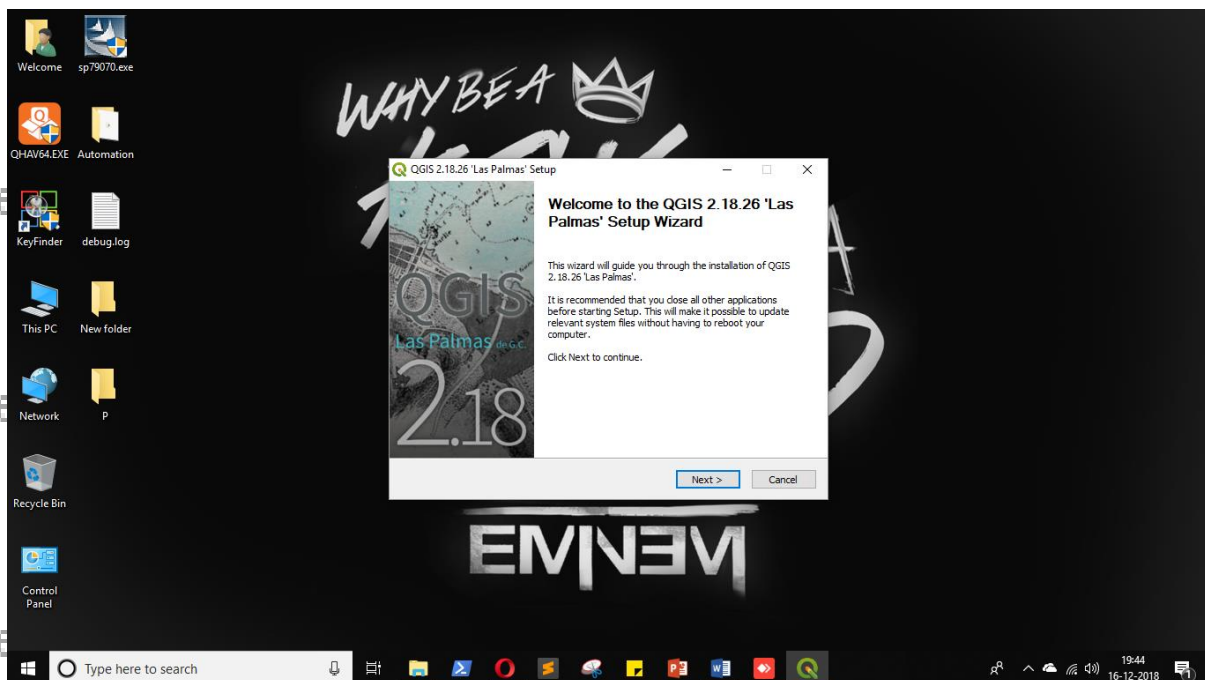
Installation of QGIS.

Double click on setup file to install it.

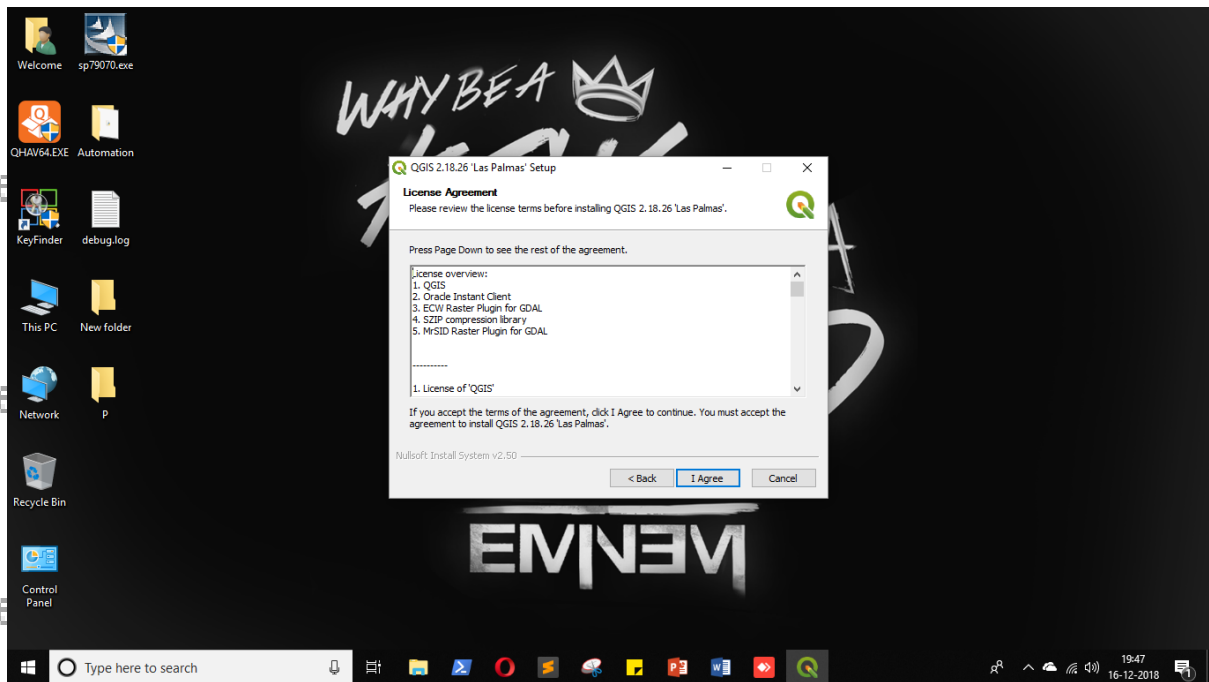


QGIS-OSGeo4W-2.18.26-1-Setup-x86_64.exe

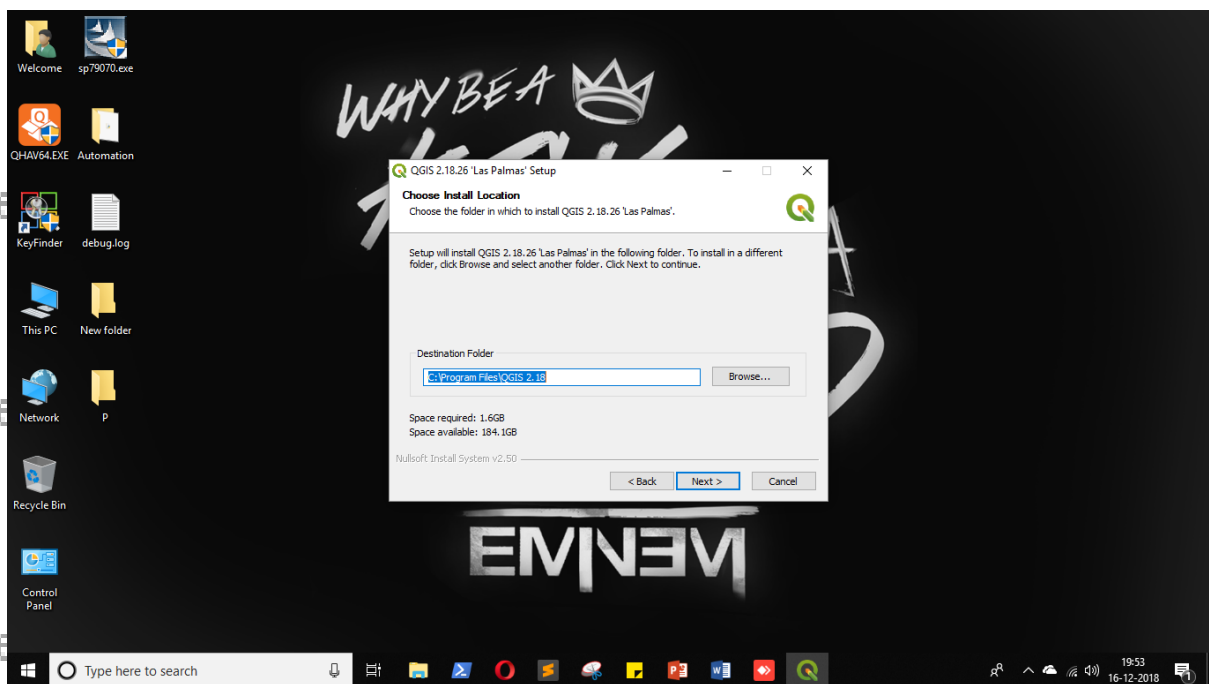
Installation window will appear like this



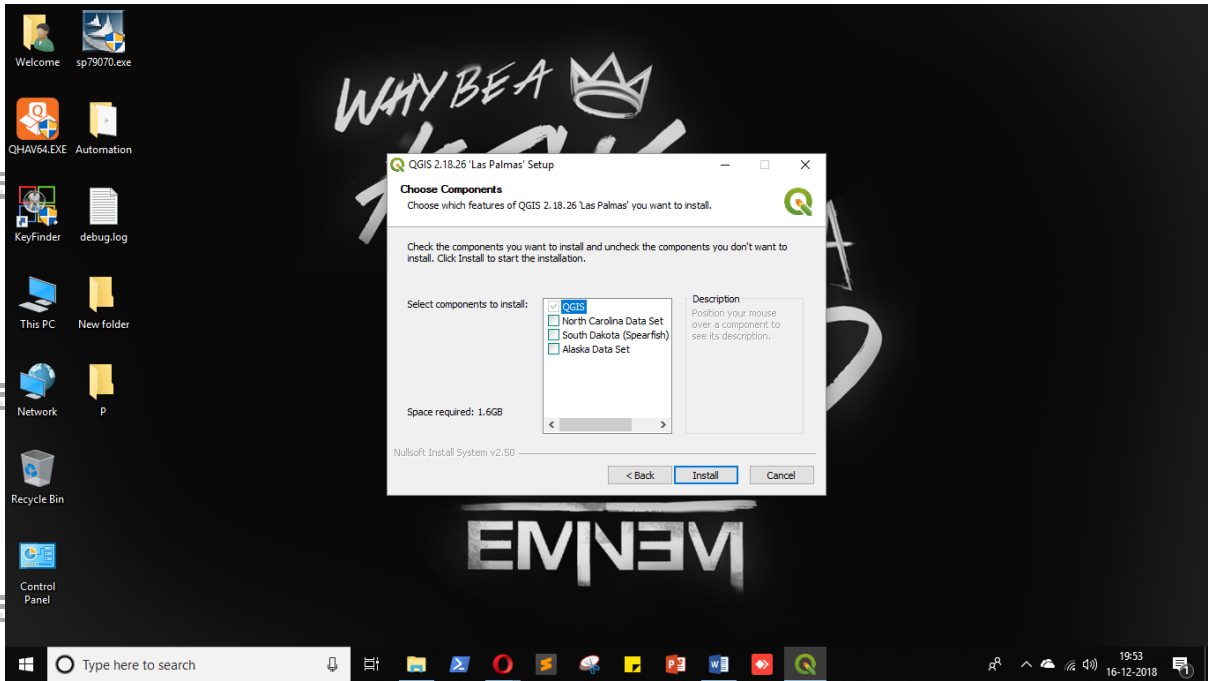
Click on "Next" button.



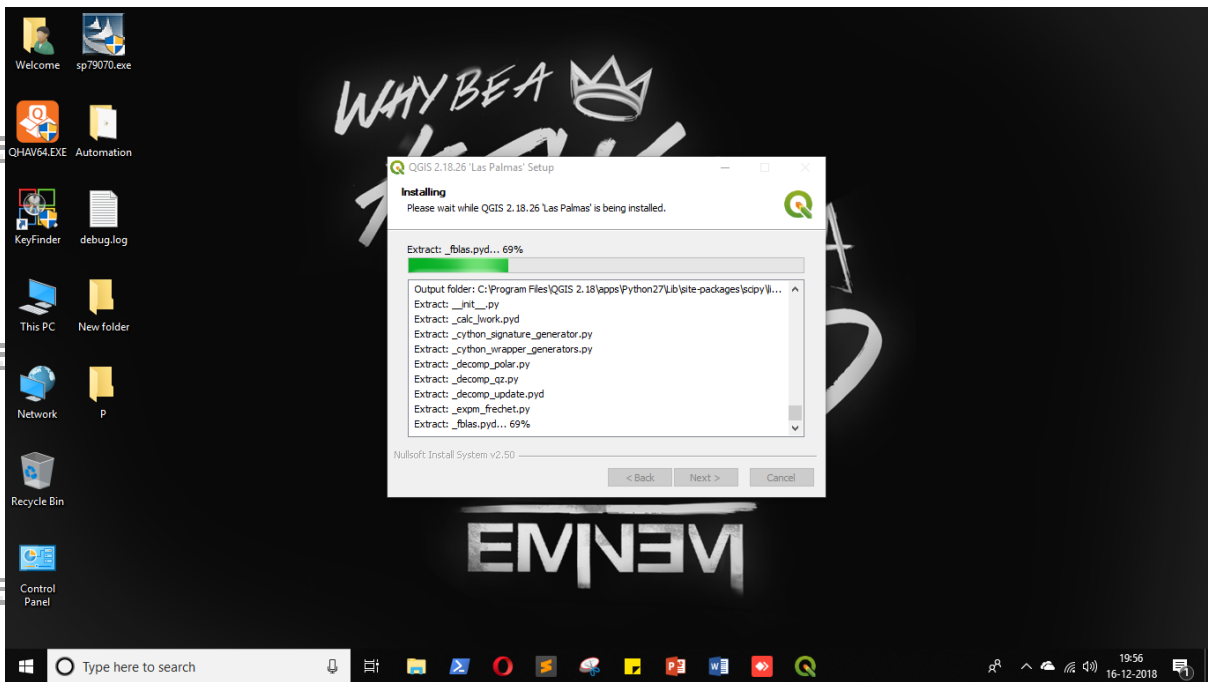
Click on “I Agree”.

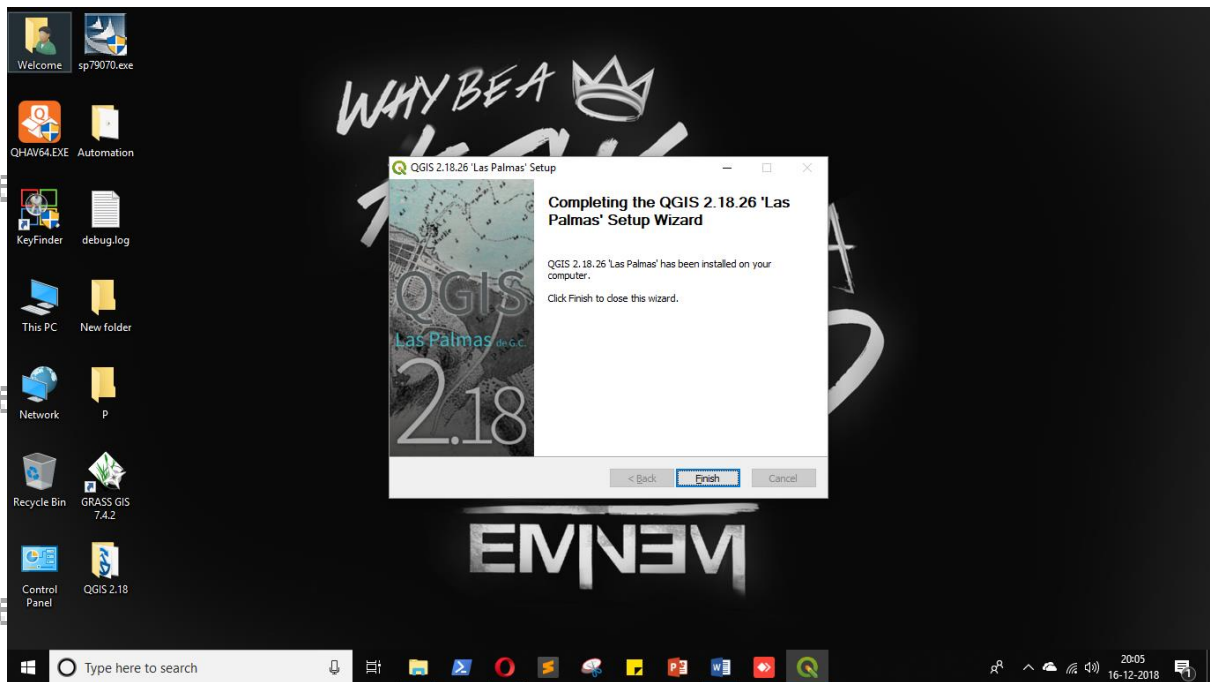


Set the installation path and click on “Next”



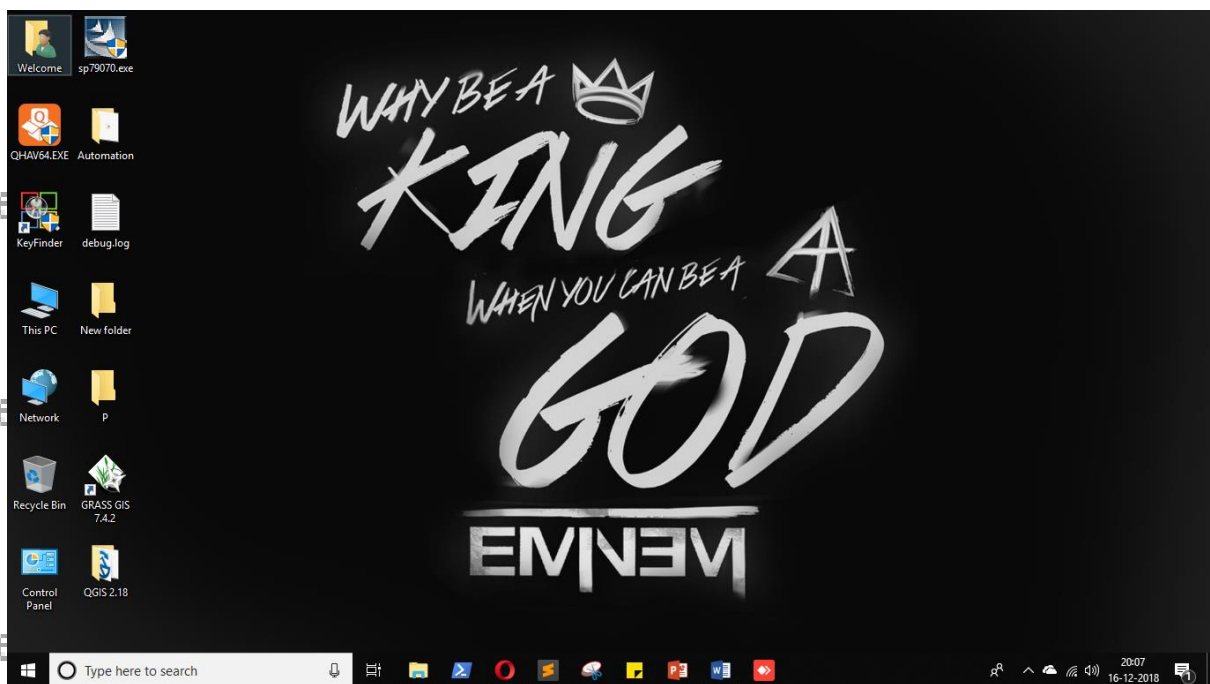
If you want you can load other data sets by clicking on check box before them.
Click on "Install".

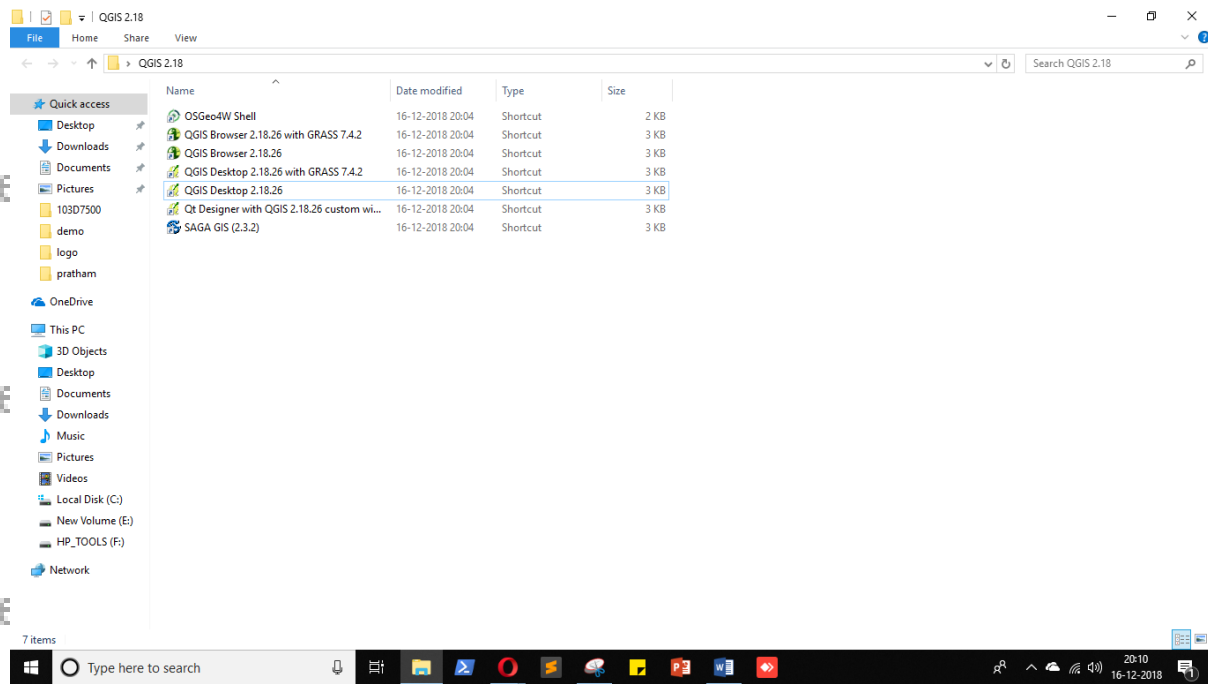




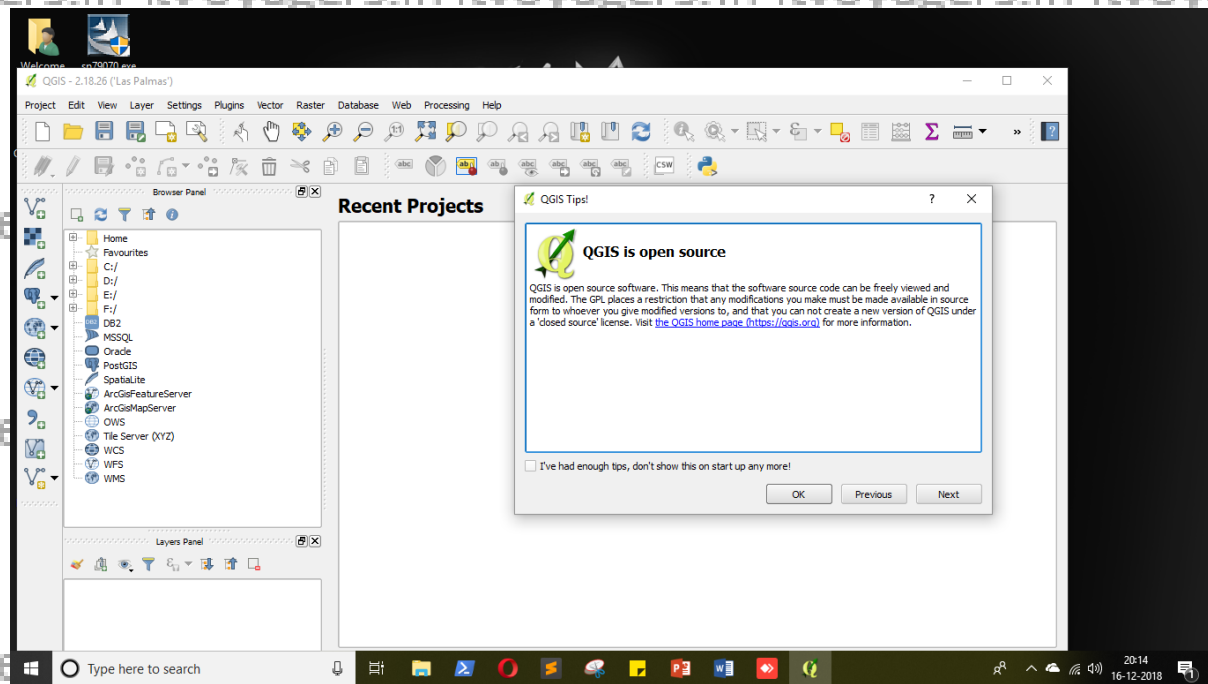
Click on “Finish”

You will get QGIS 2.18 Folder on your desktop.






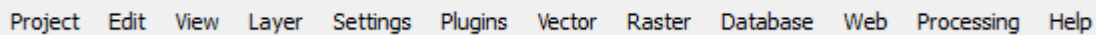
To start QGIS 2.18 go in folder QGIS 2.18 and double click on “QGIS Desktop 2.18.26”.



Following are the few sections in QGIS.

 QGIS 2.18.26 - project's name

This section shows the name of the project which we are working on. It is on top left corner of the screen.



Bellow project name first thing you will find is the “Menu Bar”. Using it we can navigate ourselves to which ever tool we want.



This section is called as “Projector Toolbar”, as the name says it has some options like New, Open, Save, etc. which can be found in “Project” menu from “Menu Bar”.



Very next to “Projector Toolbar” is “Map Navigation Toolbar” in this we can get tools like Touch zoom and pan, Pan, Pan Map to Selection, etc.



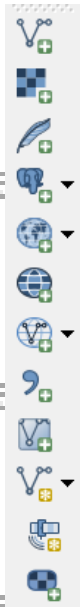
Next is “Attribute Toolbar”, it has the tools to perform the actions on attributes (fields) of shape file



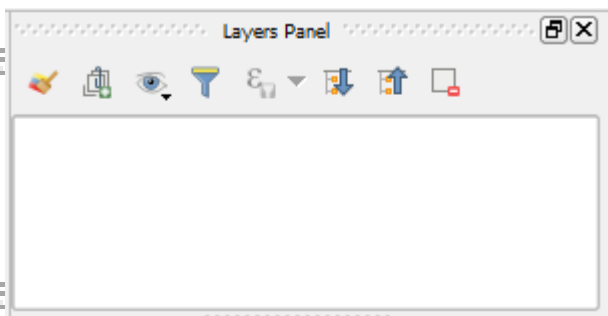
Next is “Digitizing Toolbar”, it has tools which helps us to create or update shape file or we can say it helps us to create or update data in our map (GIS).



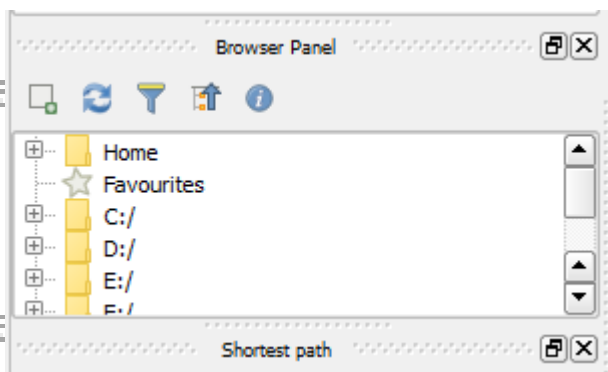
Next is “Label Toolbar”, is has tools which helps us with labelling the map.



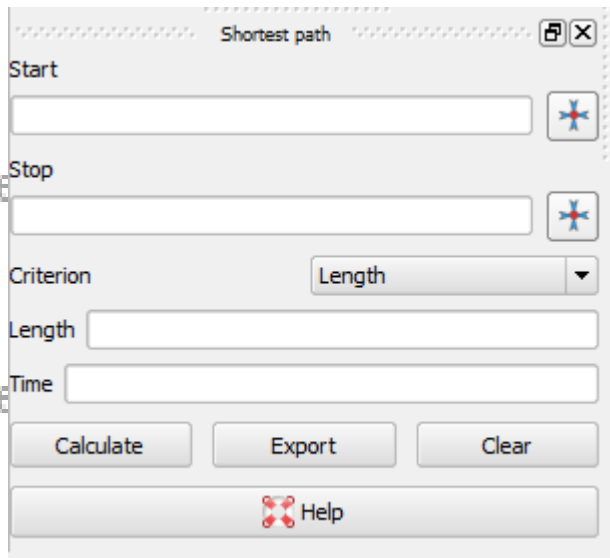
“Manage Layer Toolbar” it has all the tool which are present in **“Layer”** menu of **“Menu Bar”**.



“Layer Panel” it represent the layers in hierarchical format.



“Browser Panel” which helps to browse to our folders to fetch files.



As the name says it will calculate the shortest path using road in map.

And last the big white area is called "Canvas", it is where we create our map.