Practical Assignment: 5

Aim: How to Process Raster in QGIS Layer Stacking (Composite), Mosaicking (Merge), and Clipping

Theory:

Layer Stacking:

Layer stacking, also known as compositing, involves combining multiple raster layers into a single layer. This is useful for:

- Creating false-color composites

- Combining multispectral or hyperspectral data

- Creating a single layer from multiple sources

Mosaicking:

Mosaicking, also known as merging, involves combining multiple raster layers into a single layer, often used for:

- Creating a seamless mosaic from multiple images or tiles

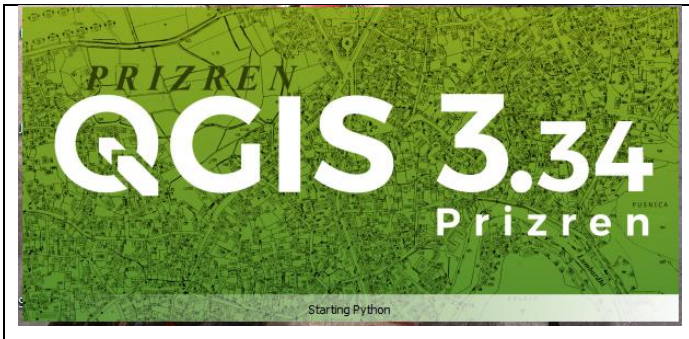
- Combining data from different sources

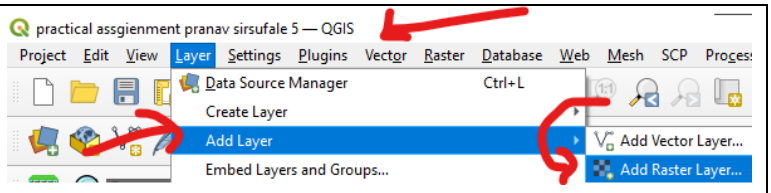
Clipping :

Clipping involves extracting a subset of a raster layer using a vector layer (e.g., polygon) as a mask.

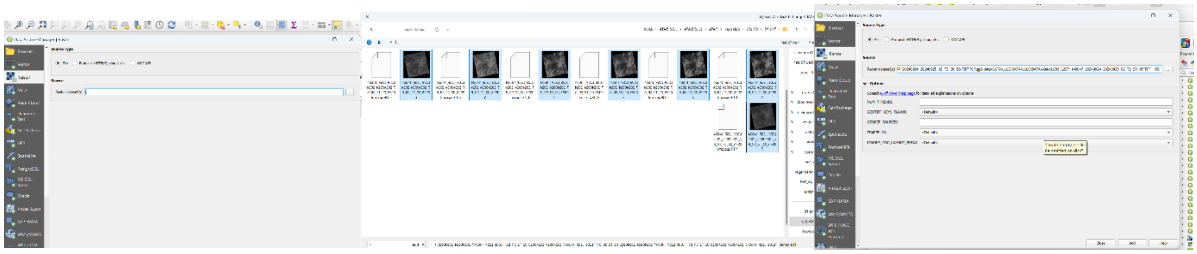
Results:

Step 1: Open QGIS: Launch QGIS and load the raster layer

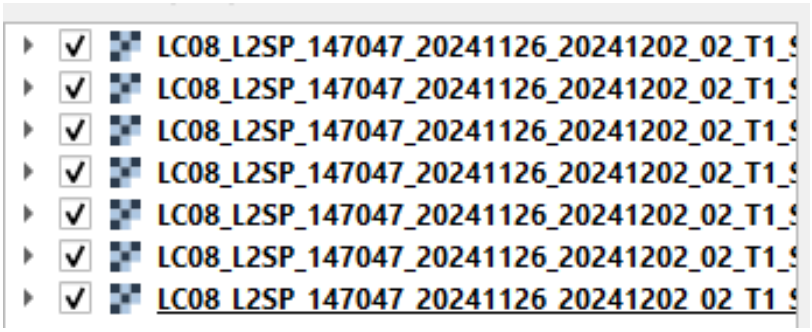


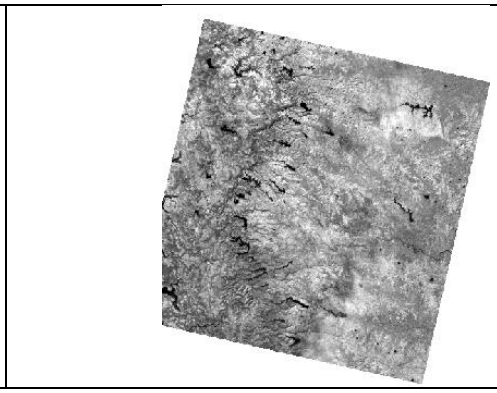


Step 2: Select Raster Layer: Select the raster layer and add the image

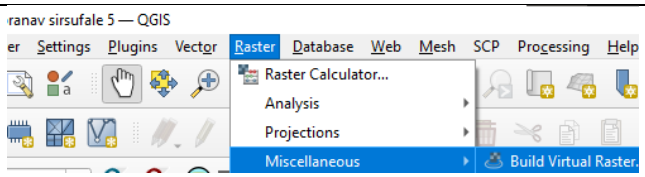


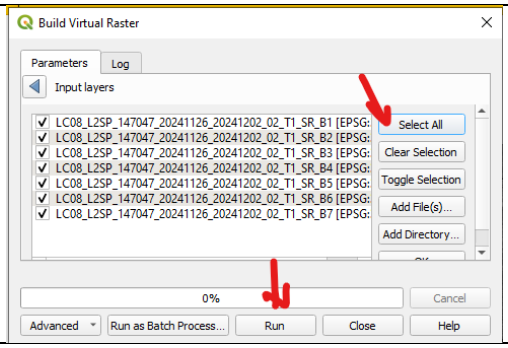
Step:3 select the addede image for stackking (Composite)



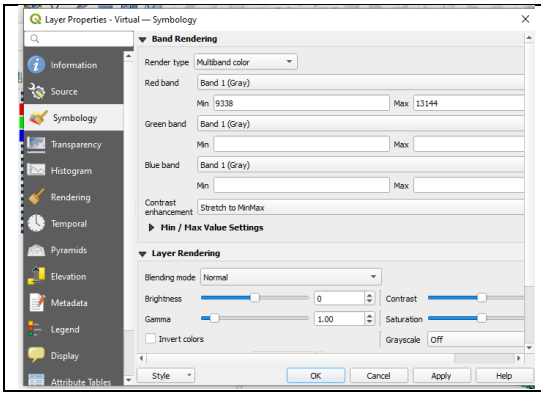


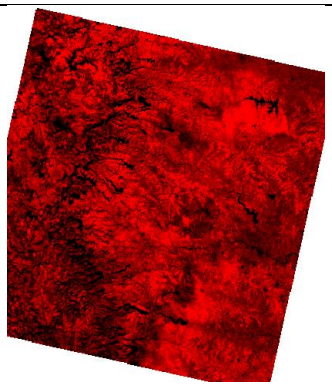
Step 4: select raster > miscellaneous and build virtual raster



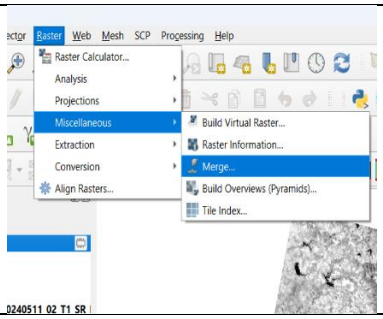


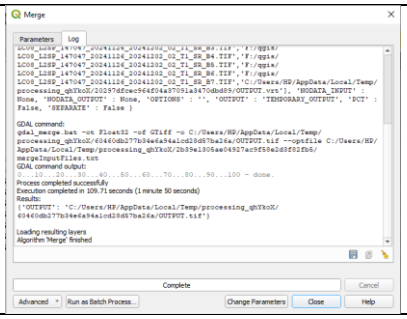
Step 5: select the band for true to the staking data and after selecting band final result



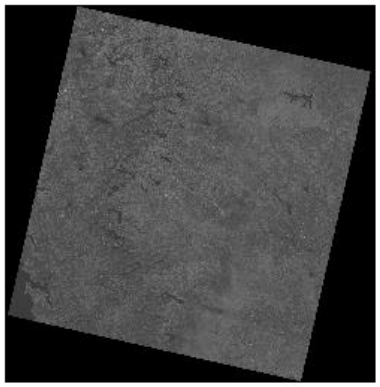


Step 7: step for Mosaicking (Merge)

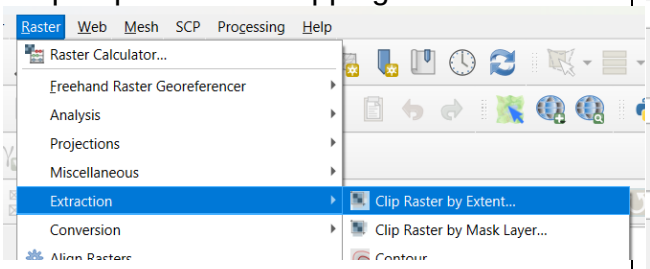


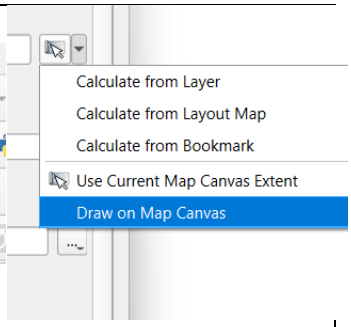


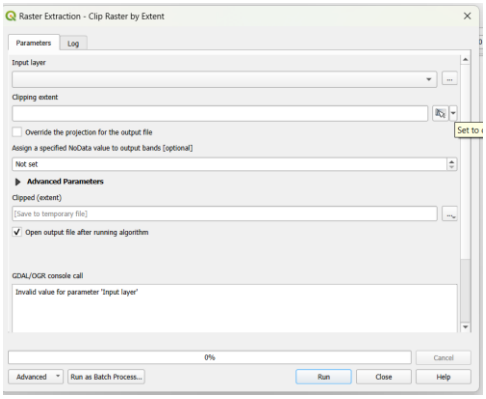
Step 8: result after Mosaicking



Step 9: process for clipping







Step 10 : Result after clipping