DATATHON-2024

‚UNLEASH YOUR INNER CARTOGRAPHER!'

LOVE DATA WEEK-DATATHON ‚13TH FEB 2024

THÜNEN DLR Technische Universität Braunschweig

QGIS DEMO MANUAL

Presenter : **Vineeta Sharma**
Geo-informatics Specialist
THÜNEN

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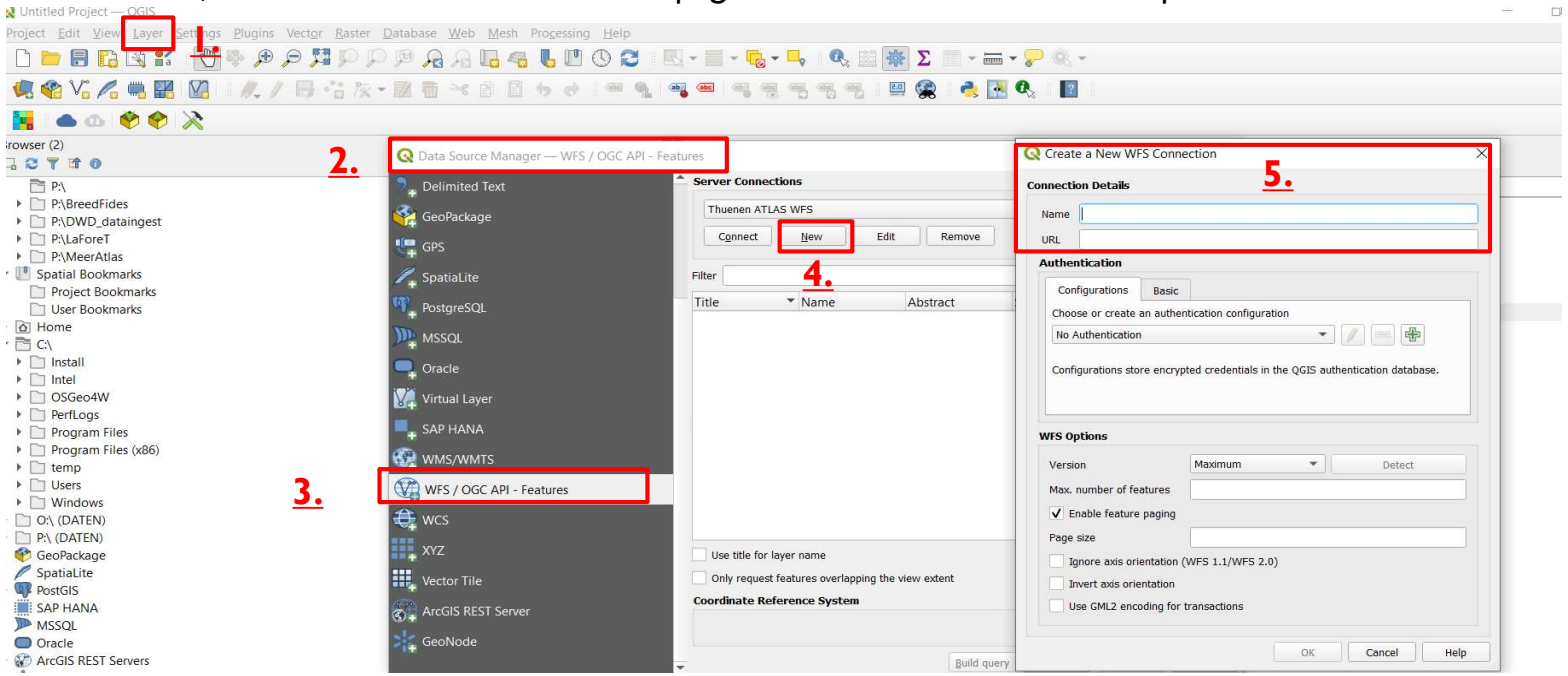
✓ WORKING WITH OGC SERVICES

- Browse through the given list of layers (https://github.com/rdm4bs/datathon2024/blob/main/geodata_sources.md) or any other OGC compliant Spatial data services available
- Get the server specifications or get the WMS/ WFS link of the layers that is of interest
- Use the server specifications or the WMS/WFS link and copy the link

✓ ADDING A WMS AND WFS SERVICES IN QGIS

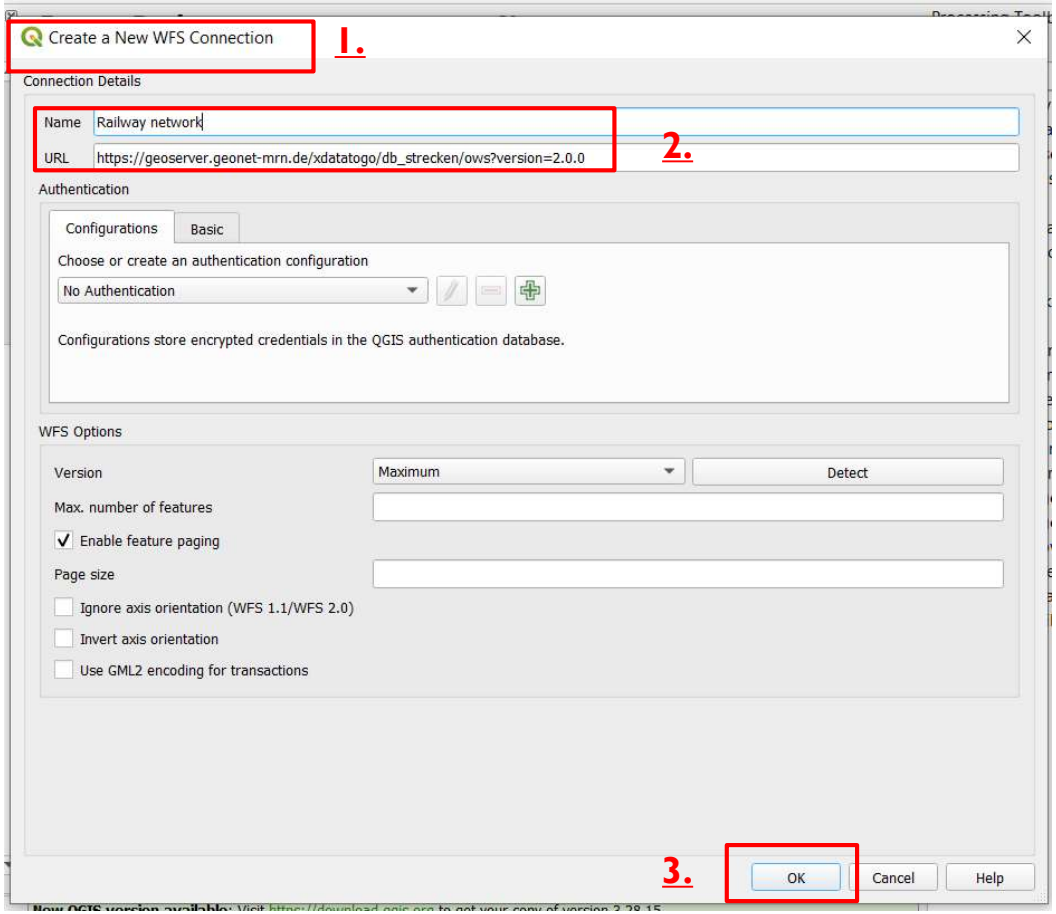
- Open QGIS → Browser →Scroll down to WFS/OGC API –Features → Right click „add a new connection“ → Fill in the ‚NAME‘ and the ‚URL‘ that you just copied and then finish by clicking OK
- Alternatively, one can go to → Layer Tab→ Data source manager → Scroll down to WFS/OGC API and follow the rest of the steps as above (Follow the numerical step guide in the screenshot presented in the slide)



✓ PROCESSING STEPS IN THE GEOSTORY : (A) ADD WFS

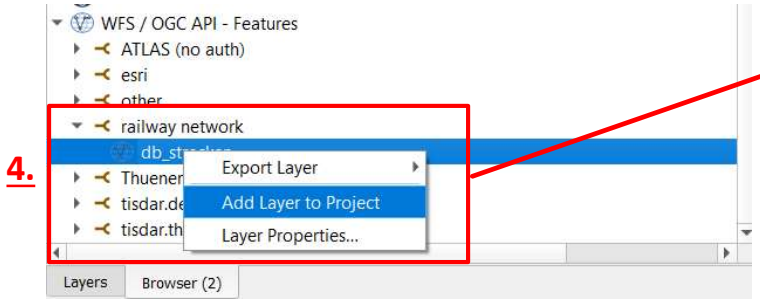
- Add the WFs link for the Railway network from DB (https://geoserver.geonet-mrn.de/xdatatogo/db_strecken/ows?version=2.0.0) into the QGIS via the Data source manager as explained in the above slides

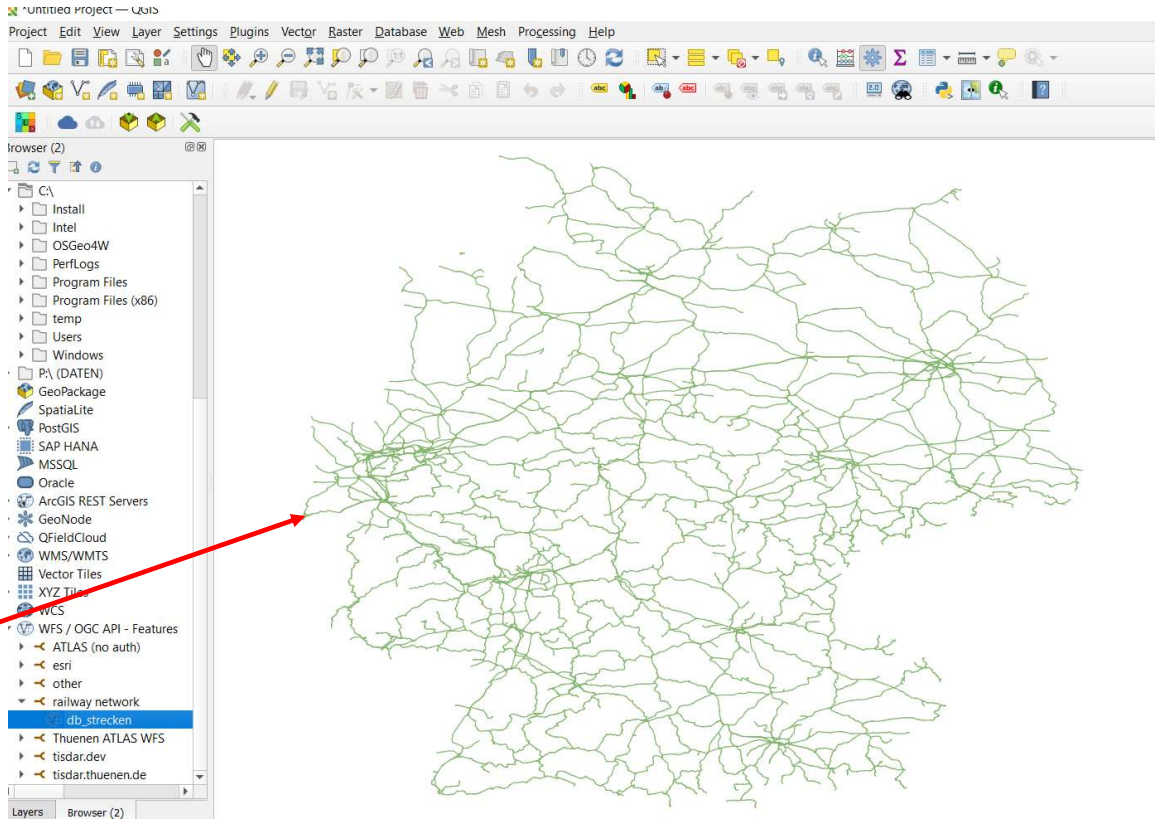
- In the connection details provide the Name and URL and click OK



✓ PROCESSING STEPS IN THE GEOSTORY : (A) ADD WFS

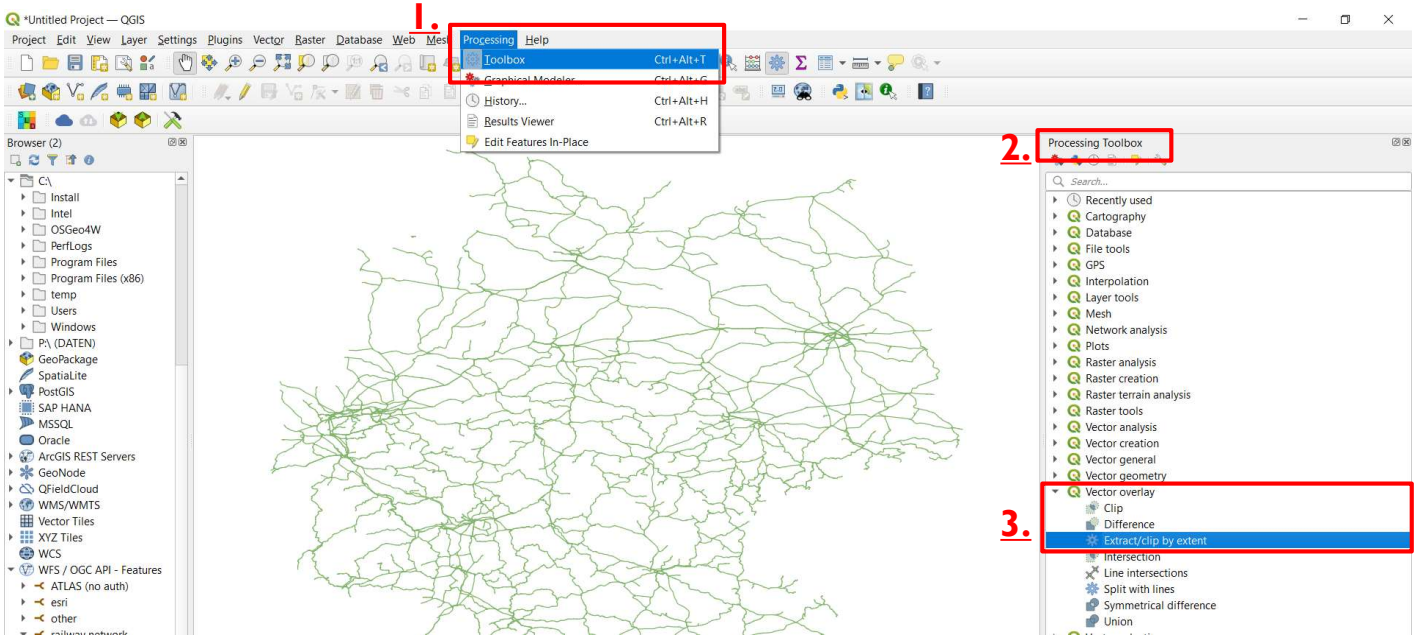
- Add the WFs link for the Railway network from DB (https://geoserver.geonet-mrn.de/xdatatogo/db_strecken/ows?version=2.0.0) into the QGIS via the Data source manager as explained in the previous step
- In the connection details provide the Name and URL and click OK
- After successful addition of the WFS data source, go to browser, scroll down to 'WFS/OGC API-Featurees' , go to the newly added 'Railway nerwork' WFS sourse, right click on the layer and 'Add layer to Project

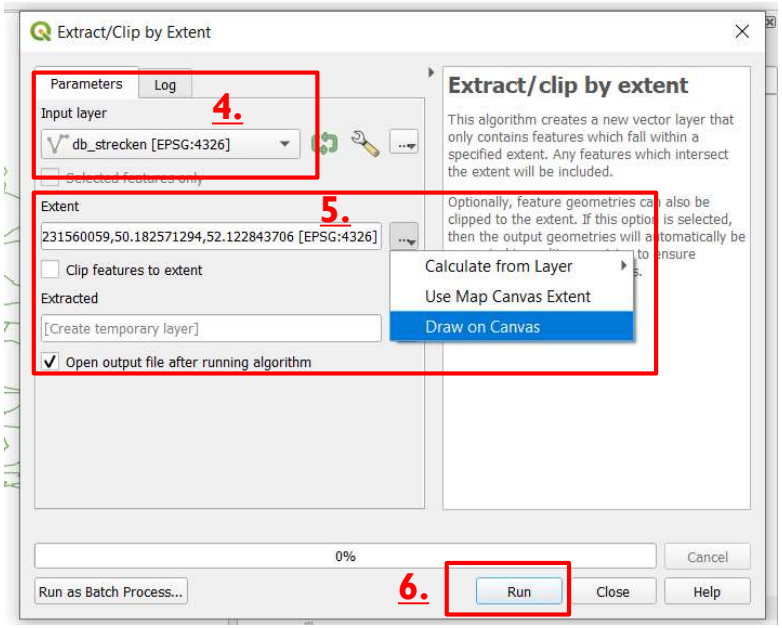




✓ PROCESSING STEPS IN THE GEOSTORY : (B) CLIP THE WFS LAYER

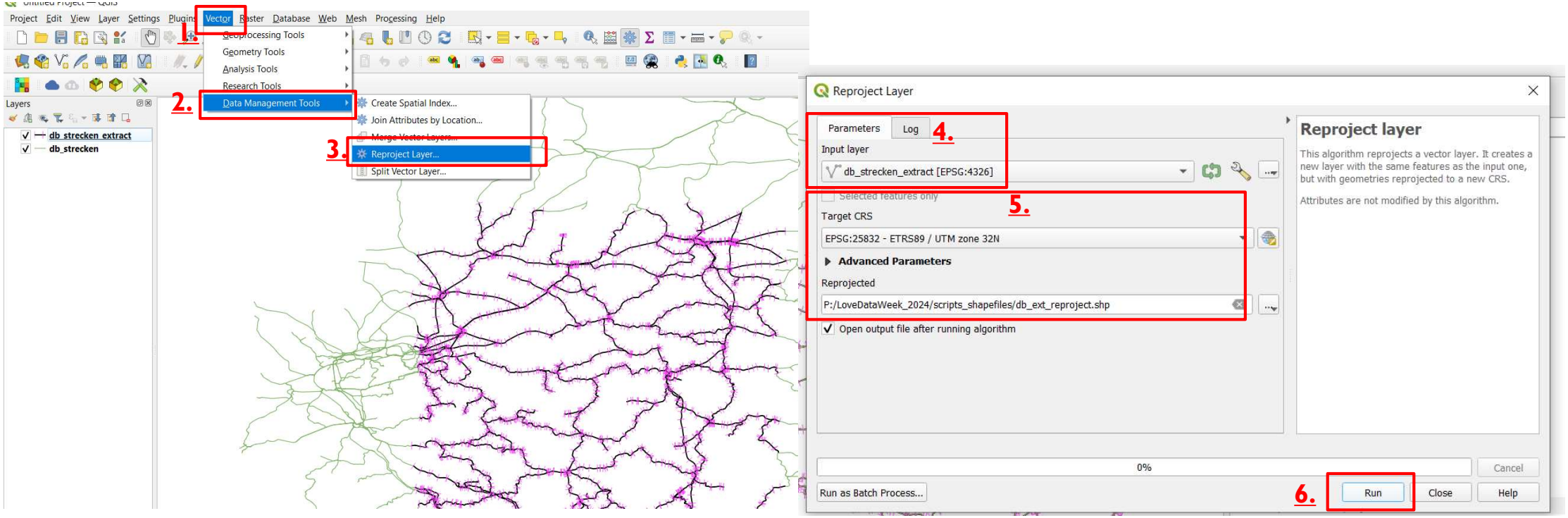
- Go to the ‚Processing' tab → Toolbox→ select ‚Vector overlay → ‚Extract/clip by extent
- Open the dialog box→ provide the ‚Input layer' , then specify the extent to base the clip upon (3 methods, choose ‚Draw on Canvas')& get the extents based on current drawn polygon, →provide the name and location for the extracted output → Run





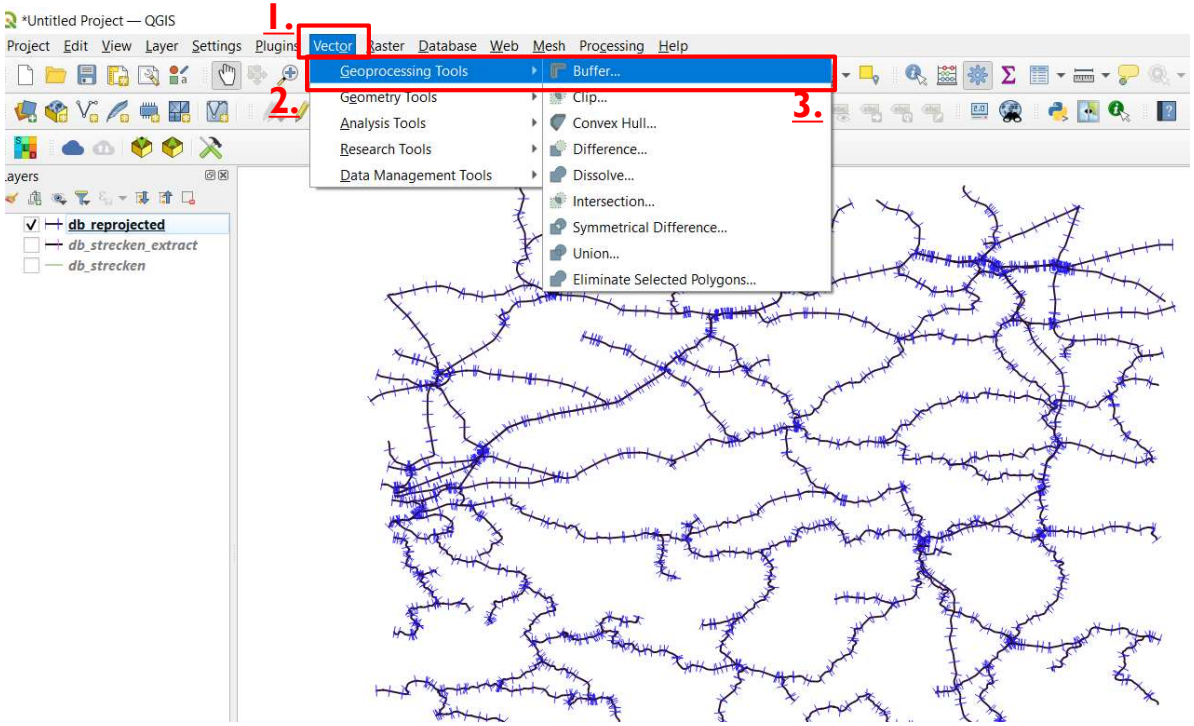
✓ PROCESSING STEPS IN THE GEOSTORY : (C) REPROJECTION

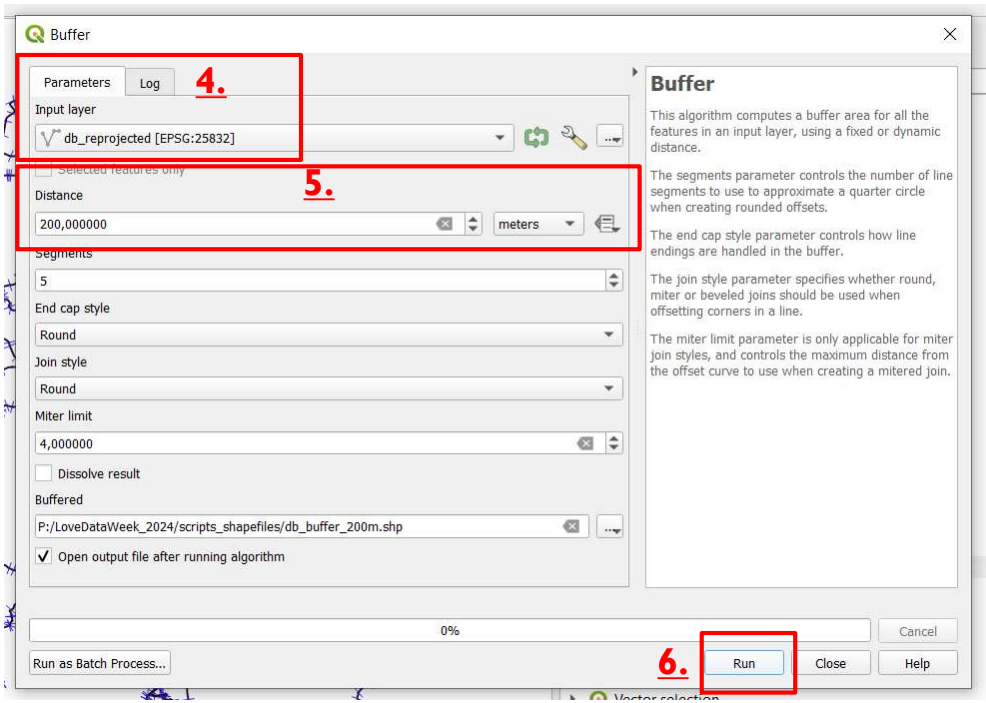
- Go to the ‚Vector' tab → Data Management Tools→ Reproject Layer
- Open the dialog box→ provide the ‚Input layer' , then specify the Target CRS (EPSG : 25832) →provide the name and location for the Reprojected output → Run



✓ PROCESSING STEPS IN THE GEOSTORY : (D) BUFFER

- Go to the ‚Vector' tab → Geoprocessing Tools → Buffer
- Open the dialog box→ provide the ‚Input layer' , then specify the buffer distance (200m) →provide the name and location for the Buffered output → Run





✓ PROCESSING STEPS IN THE GEOSTORY : (E) INTERSECTION OF THE 2 LAYERS

- Add the forest layer as WFS from this link (https://sgx.geodatenzentrum.de/wfs_dlm250?, layer → dlm250:objart_43002_f) [Follow steps in Section (A)]. Clip this layer based on the extent of the Railway layer by following the steps in Section (B) .
- Go to 'Vector' tab→Geoprocessing Tools→Intersection, input=DB_buffer, overlay =Forest, save output → Run