

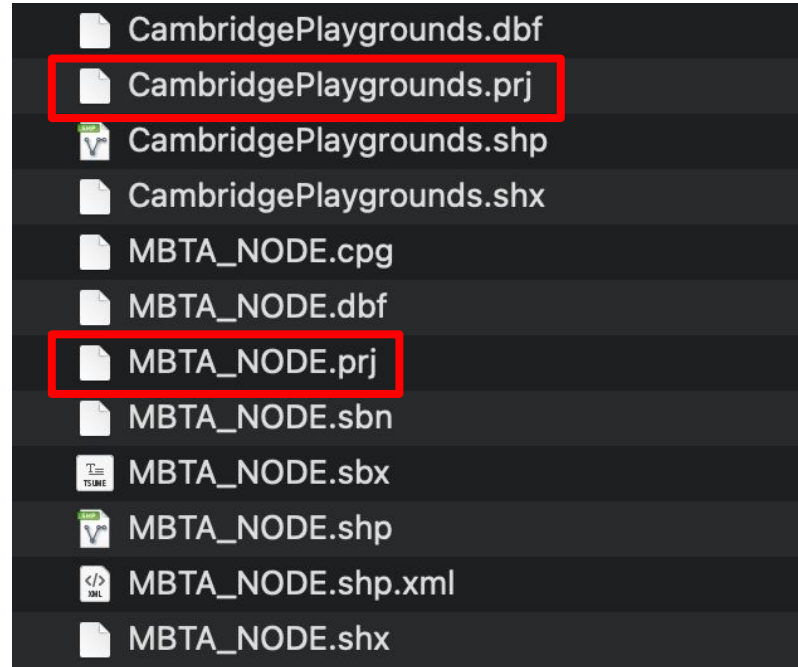
GEOG271 - HW 4

Nithila Chrisostam

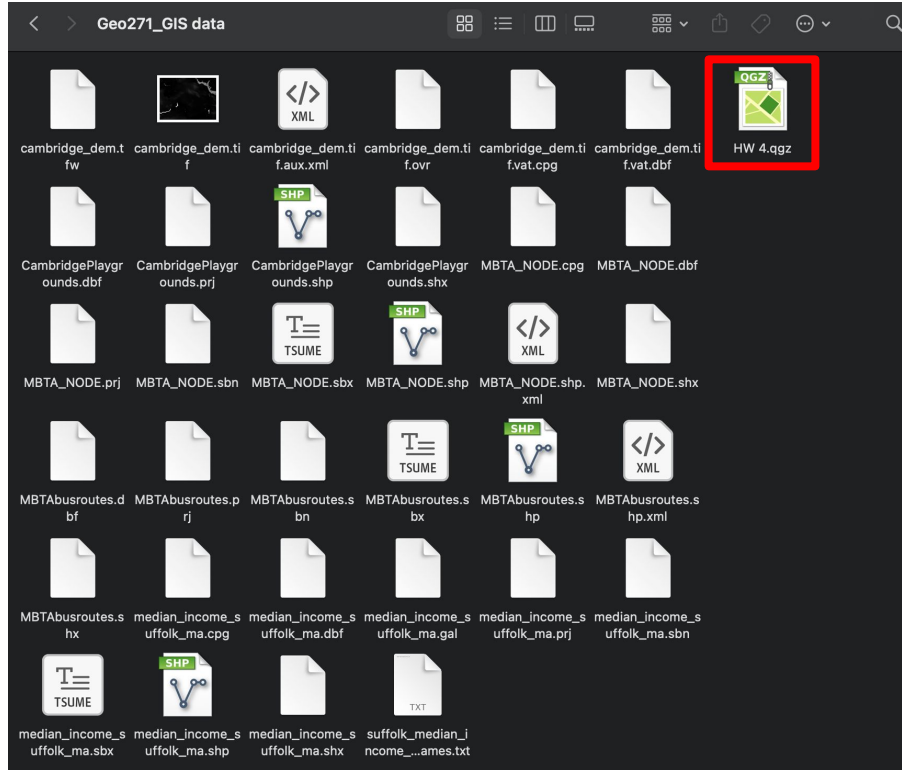
#1 - Examine data in Geo271_GIS folder

Give two files that have a projection file in the dataset folder:

The CambridgePlaygrounds and MBTA_NODE files have a projection file within their data sets— This is denoted by the .prj extension at the end of these file names.



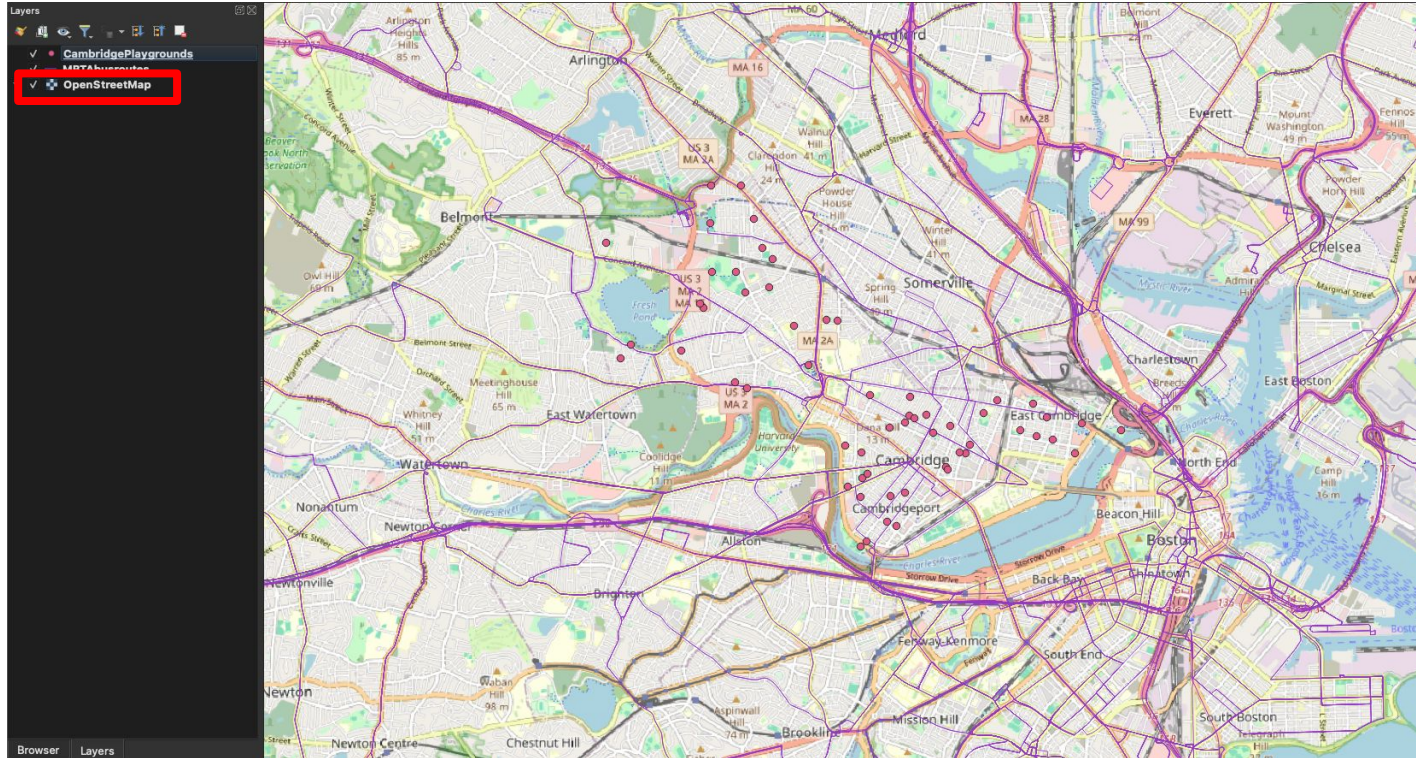
#2 - Save project to working folder



#3 - Add data layers to project



#5 - Add basemap



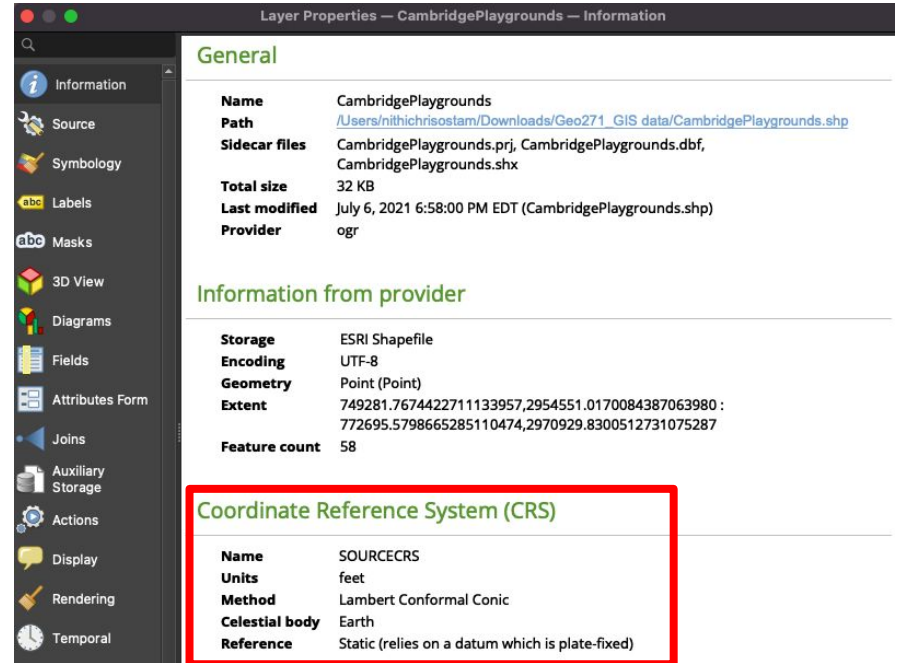
#7 + 8: CambridgePlaygrounds Properties

What is the coordinate reference system?

Name: SOURCECRS

Method: Lambert Conformal Conic

Units: Feet



The screenshot shows the 'Layer Properties' dialog box for the 'CambridgePlaygrounds' layer. The 'General' tab is selected, displaying metadata such as Name, Path, Sidecar files, Total size, Last modified, and Provider. Below this, the 'Information from provider' section shows Storage, Encoding, Geometry, Extent, and Feature count. The 'Coordinate Reference System (CRS)' tab is highlighted with a red rectangle, showing the following details:

Coordinate Reference System (CRS)	
Name	SOURCECRS
Units	feet
Method	Lambert Conformal Conic
Celestial body	Earth
Reference	Static (relies on a datum which is plate-fixed)

#9: MBTAbusroutes Properties

What is the coordinate reference system?

Name: ESPG26986 -

NAC83/Massachusetts Mainland

Method: Lambert Conformal Conic

Units: Meters

Layer Properties — MBTAbusroutes — Information

General

Name	MBTAbusroutes
Path	/Users/nithichrisostam/Downloads/Geo271_GIS_data/MBTAbusroutes.shp
Sidecar files	MBTAbusroutes.dbf, MBTAbusroutes.sbx, MBTAbusroutes.shx, MBTAbusroutes.sbn, MBTAbusroutes.prj, MBTAbusroutes.shp.xml
Total size	6.78 MB
Last modified	July 6, 2021 6:58:00 PM EDT (MBTAbusroutes.shp)
Provider	ogr

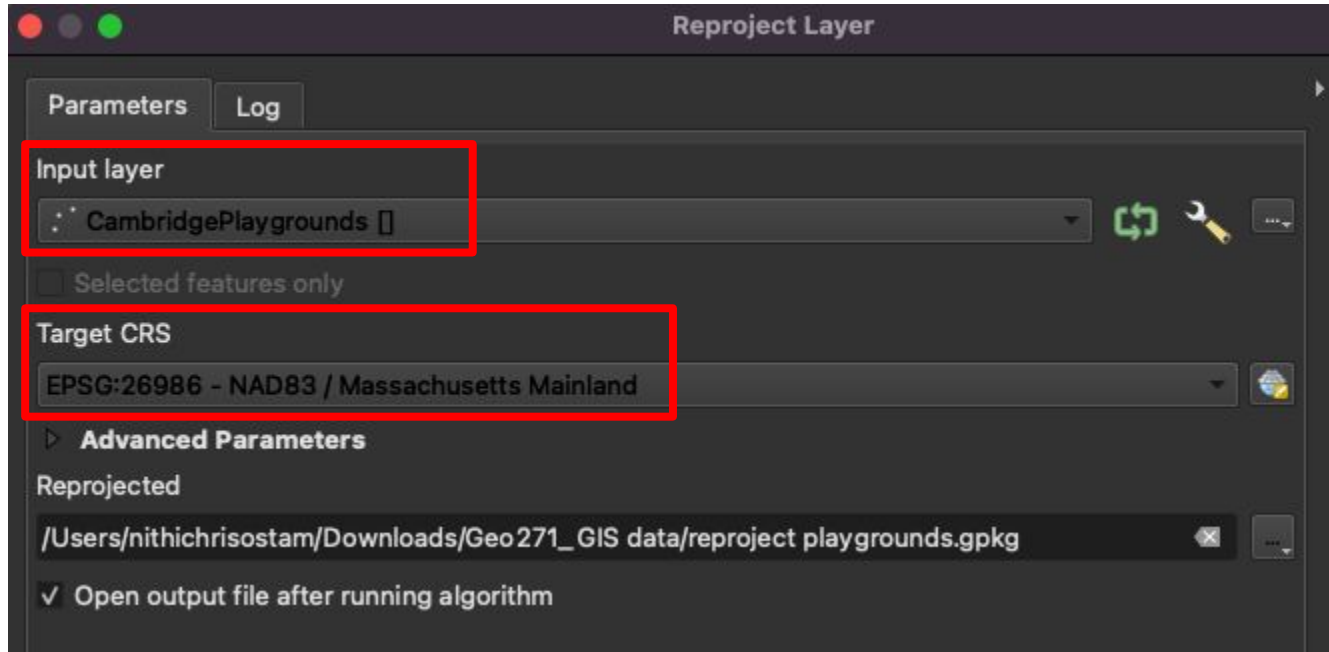
Information from provider

Storage	ESRI Shapefile
Encoding	UTF-8
Geometry	Line (MultiLineStringM)
Extent	217175.4792999997735023,872979.42550000017583370 : 253917.14050000022787135,926447.5615000003017485
Feature count	765

Coordinate Reference System (CRS)

Name	EPSG:26986 - NAD83 / Massachusetts Mainland
Units	meters
Method	Lambert Conformal Conic
Celestial body	Earth
Reference	Static (relies on a datum which is plate-fixed)

#10 + 11 – Creating a new layer with a new projection



#12 - Checking new layer properties

General

Name	MBTAbusroutes
Path	/Users/nithichrisostam/Downloads/Geo271_GIS_data/MBTAbusroutes.shp
Sidecar files	MBTAbusroutes.dbf, MBTAbusroutes.sbx, MBTAbusroutes.shx, MBTAbusroutes.sbn, MBTAbusroutes.prj, MBTAbusroutes.shp.xml
Total size	6.78 MB
Last modified	July 6, 2021 6:58:00 PM EDT (MBTAbusroutes.shp)
Provider	ogr

Information from provider

Storage	ESRI Shapefile
Encoding	UTF-8
Geometry	Line (MultiLineStringM)
Extent	217175.4792999997735023,872979.4255000017583370 : 253917.1405000022787135,926447.5615000003017485
Feature count	765

Coordinate Reference System (CRS)

Name	EPSG:26986 - NAD83 / Massachusetts Mainland
Units	meters
Method	Lambert Conformal Conic
Celestial body	Earth
Reference	Static (relies on a datum which is plate-fixed)

General

Name	reproject playgrounds
Path	/Users/nithichrisostam/Downloads/Geo271_GIS_data/reproject_playgrounds.gpkg
Size	96 KB
Last modified	January 16, 2024 2:09:40 PM EST
Provider	ogr

Information from provider

Storage	GPKG
Encoding	UTF-8
Geometry	Point (Point)
Extent	228381.5393778829893563,900548.9510820750147104 : 235518.0836778850061819,905541.2232820739736781
Feature count	58

Coordinate Reference System (CRS)

Name	EPSG:26986 - NAD83 / Massachusetts Mainland
Units	meters
Method	Lambert Conformal Conic
Celestial body	Earth
Reference	Static (relies on a datum which is plate-fixed)

#12 - Coordinate Systems info for new layers

MBTAbusroutes

Name: ESPG26986 -
NAC83/Massachusetts Mainland

Method: Lambert Conformal Conic

Units: Meters

reproject playgrounds*

Name: ESPG26986 -
NAC83/Massachusetts Mainland

Method: Lambert Conformal Conic

Units: Meters

*(new CambridgePlaygrounds layer)

