GeoJSON Report

**Elements of GeoJSON File**

GeoJSON is an open standard format used for representing geographical features. Elements of a GeoJSON file include type, features, geometry, property, and id. The **type** field describes the type of geographic features included in the GeoJSON file. Examples include point, line string, and polygon. The type in my GeoJSON file is FeatureCollection as my file contains multiple geographic features (polygon and points). The **features** field is an array that describes the feature properties such as type, geometry, and properties. The **geometry** specifies the type and coordinates (latitude and longitude) of each feature. The properties field stores additional information about the feature. Finally, the id field is a unique identifier for the feature.

My website is a list of schools I went to around the world. An example from my GeoJSON file is a school (point) I went to:

{"type":"FeatureCollection","**features**":[{"**type**":"Feature","**properties**":{"stroke":"#555555","stroke-width":2,"stroke-opacity":1,"fill":"#db0f0f","fill-opacity":0.5},"**geometry**":{"coordinates":[[[55.42480009546915,25.194432181761243],[55.424575915811914,25.19358503218824],[55.425076956042716,25.19336913740736],[55.425577996273546,25.19269266461633],[55.42794799609578,25.192671074997136],[55.42790823099753,25.19444141104833],[55.42480009546915,25.194432181761243]]],"**type**":"Polygon"},"**id**":1}

**Comparison of GeoJSON and Shapefile**

GeoJSON is a stand-alone text-based file in JSON format while shapefiles are made up of multiple binary files (.shp, .shx, .dbf). GeoJSON is designed to be a file to be used easily in web applications while shapefiles are more appropriate for large datasets. In terms of size, GeoJSON files are larger than shapefiles because they store readable data in text format while shapefiles use binary formats which are not human-readable.

**Advantages and Disadvantages of Using GeoJSON**

GeoJSON has many advantages including its ease of use and no external dependencies on other files. GeoJSON is in plain text format which makes it easy to use in JavaScript. GeoJSON is a single file, so it is not dependent on other files like .shx and .dbf like shapefiles are.

Disadvantages of GeoJSON include its large size and lacks advanced GIS features. Becuase it is text based, GeoJSON files are large and require lots of processing time. This is not ideal for large datasets. GeoJSON files are also limited in terms of storing advanced GIS features such as topology and different projections.