

## Basics of GIS

Geographic Information Systems (GIS) have been developed for storage, retrieval, analysis and display of georeferenced information of and about the Earth.

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### *Helper's Guide*

#### **Answers to Learning by Doing Exercises:**

1.
  - a) Point data layers: cities
  - b) Lines data layers: lat/long, major rivers
  - c) Areas/polygon data layers: utmzone, cntry92, cntry04, continent
  - d) Raster data: cloud free earth, world
2. Czech Republic, Slovenia, Macedonia, Ukraine, Belarus, Kazakhstan, Uzbekistan, Azerbaijan, Georgia, Slovakia, etc.

#### **How to Prepare**

If you have Google Earth Pro, a more advanced version of Google Earth you can use the Import file in File menu to import shapefiles specific to your area.

#### **Need to Emphasize**

- Data on different types of geographic features are stored in separate data layers.
- Every two-dimensional map of the Earth is a projected map and, therefore, misrepresents true data.
- Raster and vector data are two major types of information processed through GIS.

#### **Related Links**

- <http://www.fws.gov/data/2mdata.html>
  - <http://www.esri.com/index.html>
  - [http://www.colorado.edu/geography/gcraft/notes/mapproj/mapproj\\_f.html](http://www.colorado.edu/geography/gcraft/notes/mapproj/mapproj_f.html)
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