

Components of GIS (Geographic information system)

Information systems may differ in how they are used within an organization, they typically contain the following components:-

- ① **Hardware:** This includes the physical devices such as computers, servers, GPS receivers, and other data capture devices used to collect and store geographic data.
- ② **Software:** These are the programs used to organize, process and analyze data. Popular GIS software includes ArcGIS, QGIS, and Google Earth. These tools provide functionalities for mapping, spatial analysis, and data visualization.
- ③ **Databases:** Geographic data is a crucial component of GIS. This data can be categorized into spatial data and attribute data. Spatial data includes information about the location and shape of geographic features, while attribute data includes non-spatial feature information associated with those features.

④ **People**:- Human resources are essential for the effective use of GIS. This includes GIS professionals, data analysts, cartographers, and domain experts who contribute to the creation, analysis, and interpretation of geographic information.

⑤ **Network**:- The different elements need to be connected to each other, specially if many different people in an organization use the same information system.

⑥ **Procedures**:- These describe how specific data are processed and analyzed in order to get the answers for which the information system is designed.