Geographical Information System - GIS
GIS uses spatio-temporal (space-time) location as the key index, as relational database containing text or numbers relate many different tables using common key index variables. Even, unrelated information is related by using location and/or extent in space-time.

Locations in Earth space–time is recorded as dates/times of occurrence, and x, y, and z coordinates representing, longitude, latitude, and elevation, respectively.

Earth-based spatial–temporal location and extent references should, ideally, be relatable to one another and ultimately to a real physical location or extent in space–time.
Geographical information system (GIS) is a system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data.

Functions of GIS
1. Input
2. Manipulation of data
3. Management
4. Query and analysis,
5. Visualization
• **Desktop GIS** is a mapping software that needs to be installed onto and runs on a personal computer.

• **WebGIS**, are online GIS applications which in most cases are excellent data visualisation tools.

• **Geobrowser** (Google Earth) is an internet browser that allows the combination of spatially referenced geographic data from many different sources.