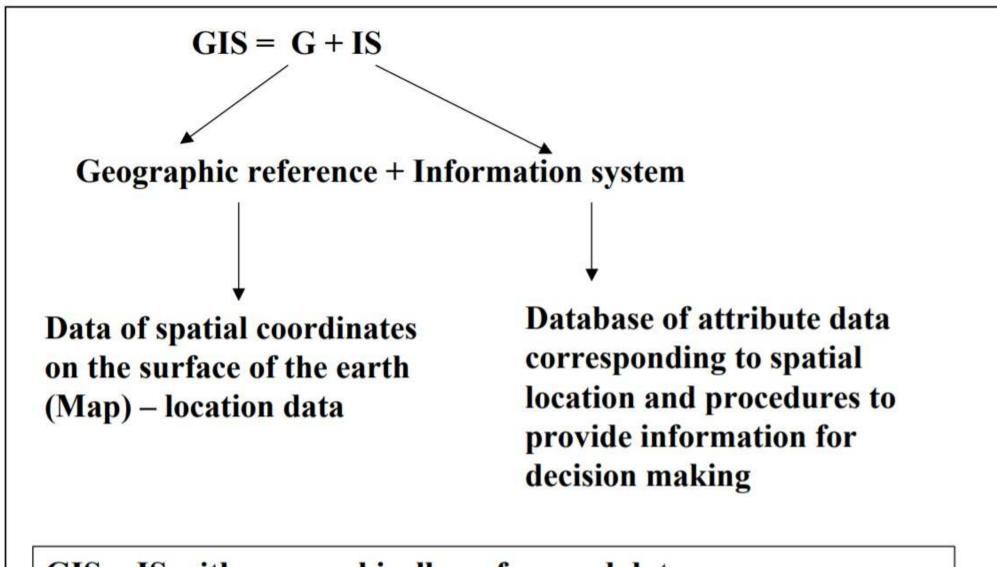
## **GIS: Basic Concepts**

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## efinition of GIS?

geographic information system (GIS) is a system designed to captur ore, manipulate, analyze, manage, and present all types of eographical data. The key word to this technology is Geography.

GIS is basically a computerized information system like any othe atabase, but with an important difference: all information in GIS mu e linked to a geographic (spatial) reference (latitude/longitude, o ther spatial coordinates). [ESRI]



**GIS** = **IS** with geographically referenced data

## hat can we do with GIS?

5 can be used as tool in both problem solving and decision making processes all as for visualization of data in a spatial environment. Geospatial data can alyzed to determine:

the location of features and relationships to other features, where the most and/or least of some feature exists, the density of features in a given space, what is happening inside an area of interest (AOI), what is happening nearby some feature or phenomenon, and and how a specific area has changed over time (and in what way)

## **COMPONENTS OF A GIS?**

Like for any other Information System, creating a GIS involves 4 stages:

(i) Data input
(ii) Data Storage
(iii) Data Analysis and modelling, and
(iv) Data Output and presentation