Components of GIS

A working GIS divides into five key components: hardware, software, data, People and Procedure.

Hardware:

Hardware is the computer on which a GIS operates. GIS software runs on a wide rang of hardware types, from centralized computer servers of desk top computers used in stand-alone or networked configurations.

Software:

Software provides the functions and tools needed to store, analyze and display geographic information. Key software components are

- Tooles for the input and manipulation of geographic information.
- Tooles that support geographic query, analysis, and visulization

- A graphical user interface for easy access to tools.

Data:

Geographic data and related tabular data can be collected in house or purchased from a commercial data provider. A GIS will integrate spatial data with other data resources and can even use a DBMS, used by most organizations to organize and maintain their data.

People:

GIS technology is of limited value without the people who manage the system and develop plans for applying it to real-world problems. GIS users range from technical specialists who design and maintain the system to those who use it to help perform their everyday work.

Procedures:

A successful GIS operates according to a well-designed plan and business rules, which are the models and operating practices unique to each organizations.