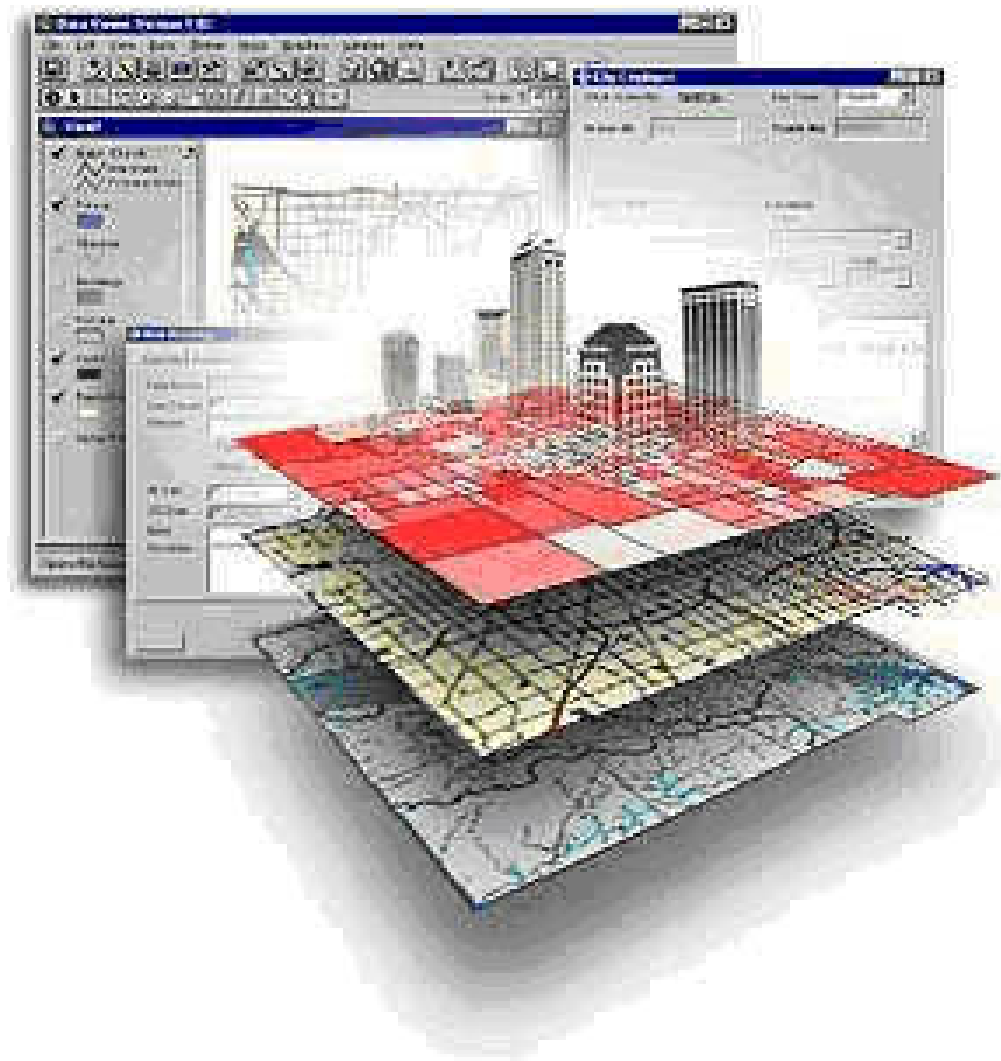
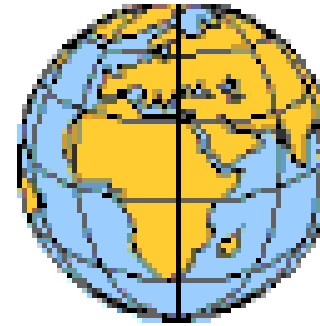


An Introduction to GIS

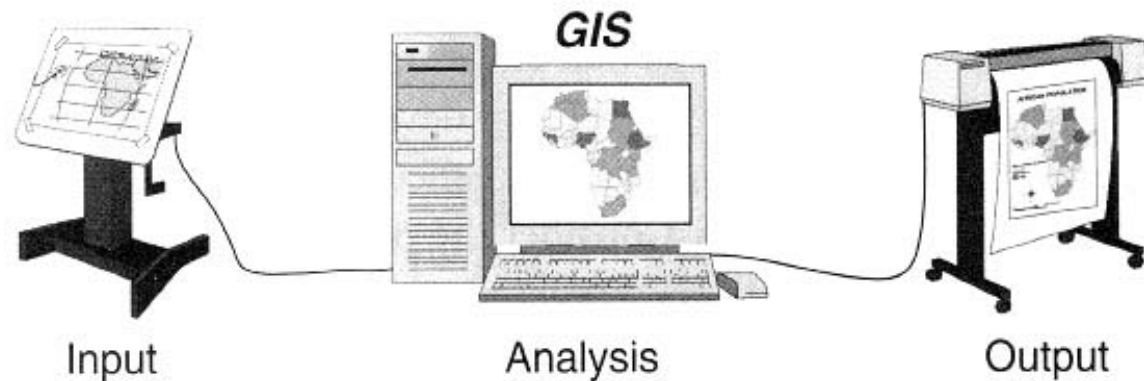


What does GIS stand for?



- **G**eographic
(Geography)
- **I**nformation
- **S**ystem

State	Area	Subregion	Subregion Area	Area	Pop	Population Density
1 - ypn	10000	Northwest	500	1000000	1000000	100
1 - ypn	10000	Midwest	500	1000000	1000000	100
1 - ypn	10000	West	500	1000000	1000000	100
1 - ypn	10000	Southwest	500	1000000	1000000	100
1 - ypn	10000	South	500	1000000	1000000	100
1 - ypn	10000	East	500	1000000	1000000	100
1 - ypn	10000	Central	500	1000000	1000000	100
1 - ypn	10000	North	500	1000000	1000000	100
1 - ypn	10000	East	500	1000000	1000000	100
1 - ypn	10000	West	500	1000000	1000000	100
1 - ypn	10000	South	500	1000000	1000000	100
1 - ypn	10000	Midwest	500	1000000	1000000	100



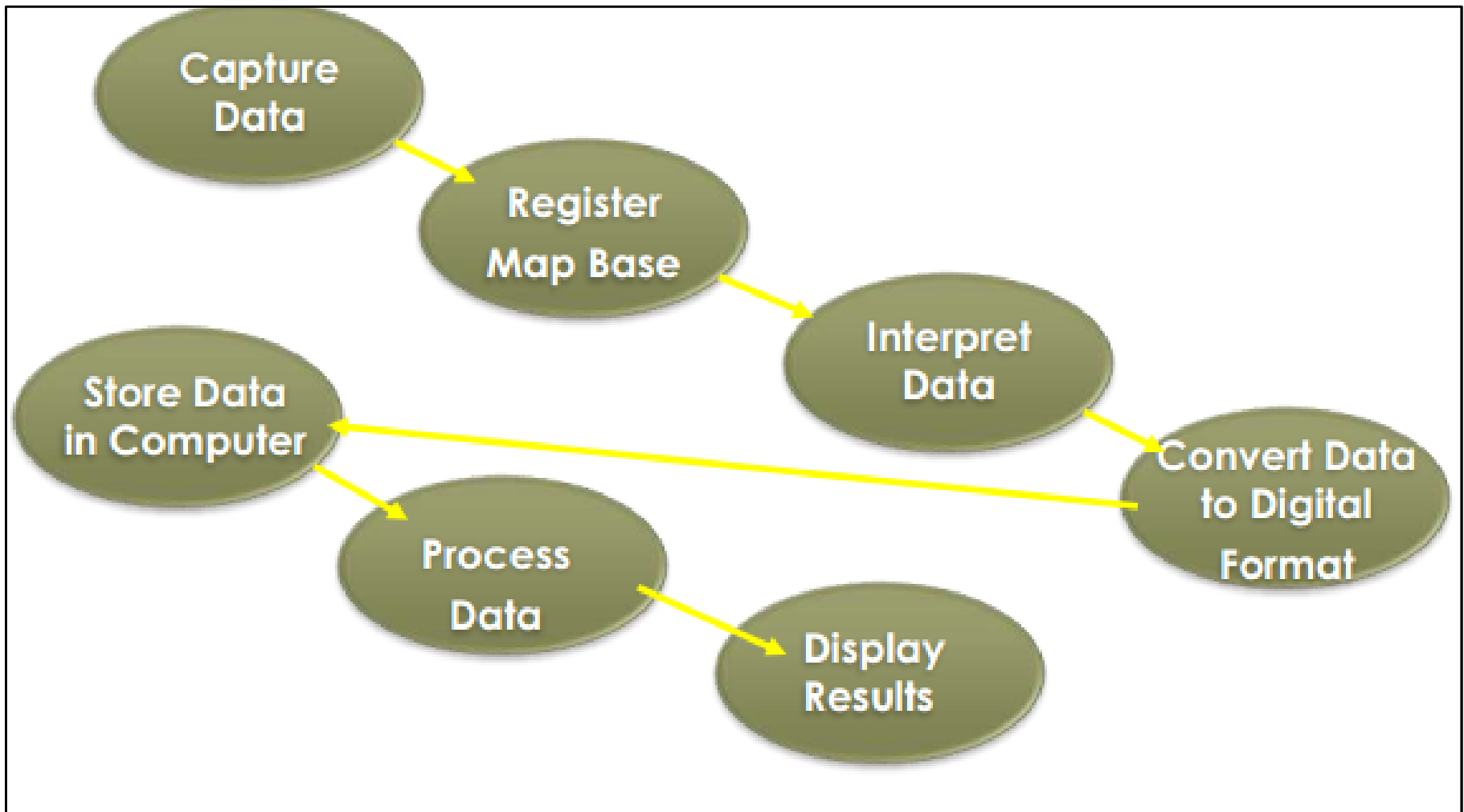
GIS



What is a Geographic Information System?

- **Geographic Information System (GIS)** – A *computer-based* system for the collection, storage, organization, maintenance, and analysis of spatially-referenced data, and the output of spatially-referenced information.
 - **Data** – Any collection of related facts; the basic elements of information.
 - **Information** – Data that have been processed to be useful; provides answers to "who", "what", "where", and "when" questions

How Does a GIS Work??



Existing Technology

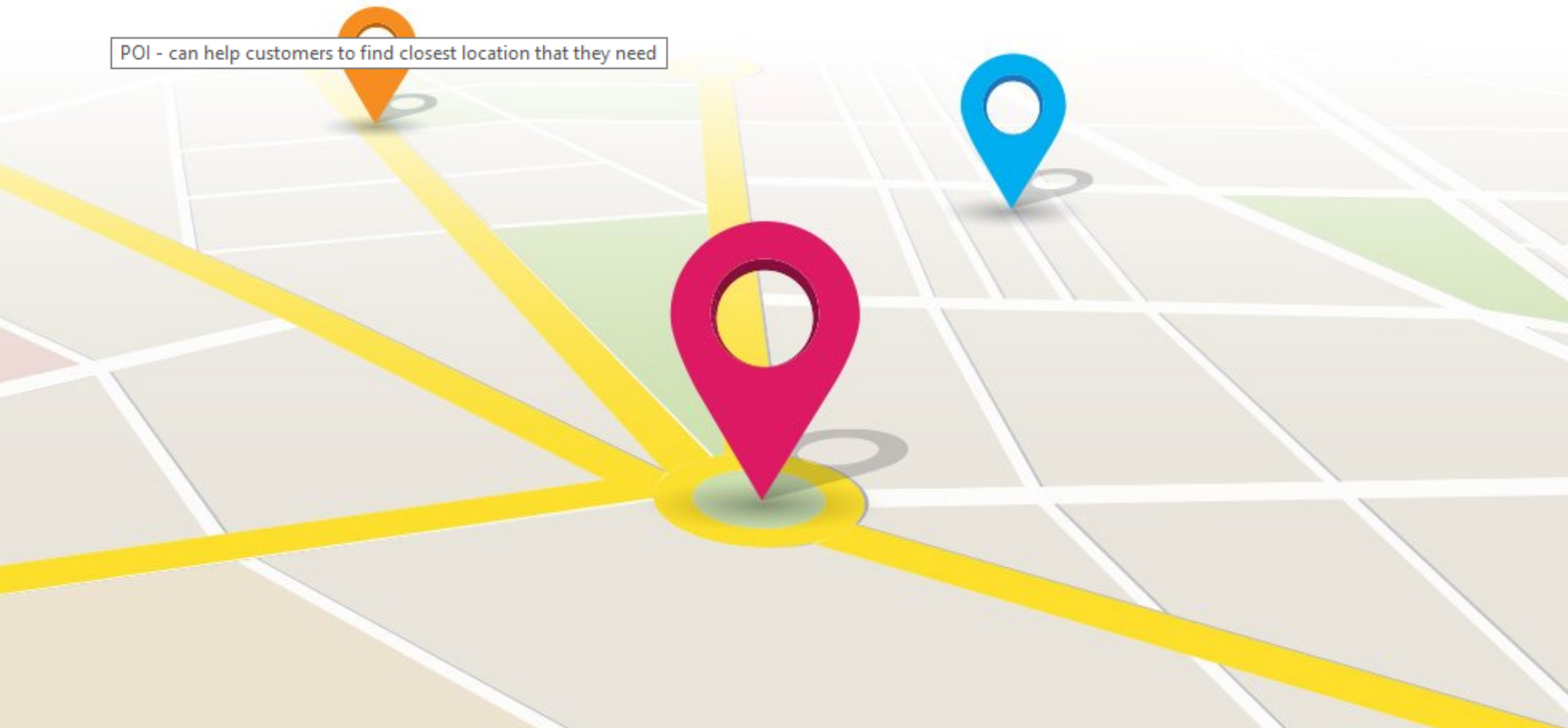
- Google Map.
- Bing Map etc.

**WHO ARE YOU AND WHAT KIND OF
TECHNOLOGY DO YOU NEED?**

Application of Google Map

- You run a local service, you represent chain store, you own a restaurant, or some other kind of service customers are looking for. The main idea in your case is “**looking for**” – this means you need to display your location on a map as a **point of interest (POI)**. Once this is done, you can help your customers to find **closest location** or get directions to your POI.
- You represent a company that rents/sells properties – you need to show your properties on a map to help customers identify suitable options in the area they are interested in.

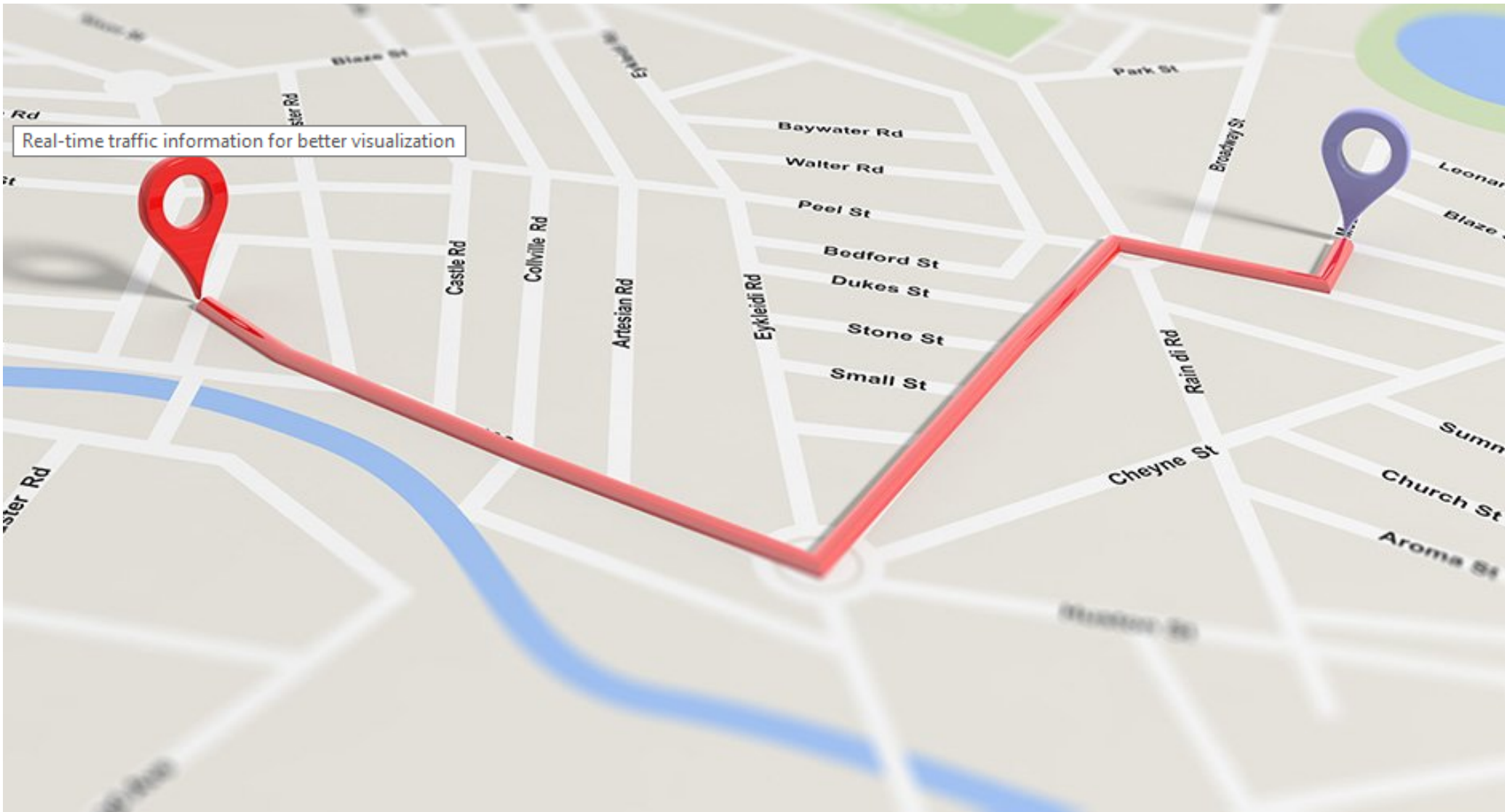
Application of Google Map



Application of Google Map

- You represent a **transport company** and you're tired of endless calls asking where customer's cargo is, your passengers are waiting for their driver to arrive and want to know if he's on time, you want to give an estimate for transport costs, or you simply want to be better than your competitors and become more user-friendly – you need to use maps to display the location of a vehicle or transported item and its routes. You can also include real-time traffic information for better visualization.

Application of Google Map



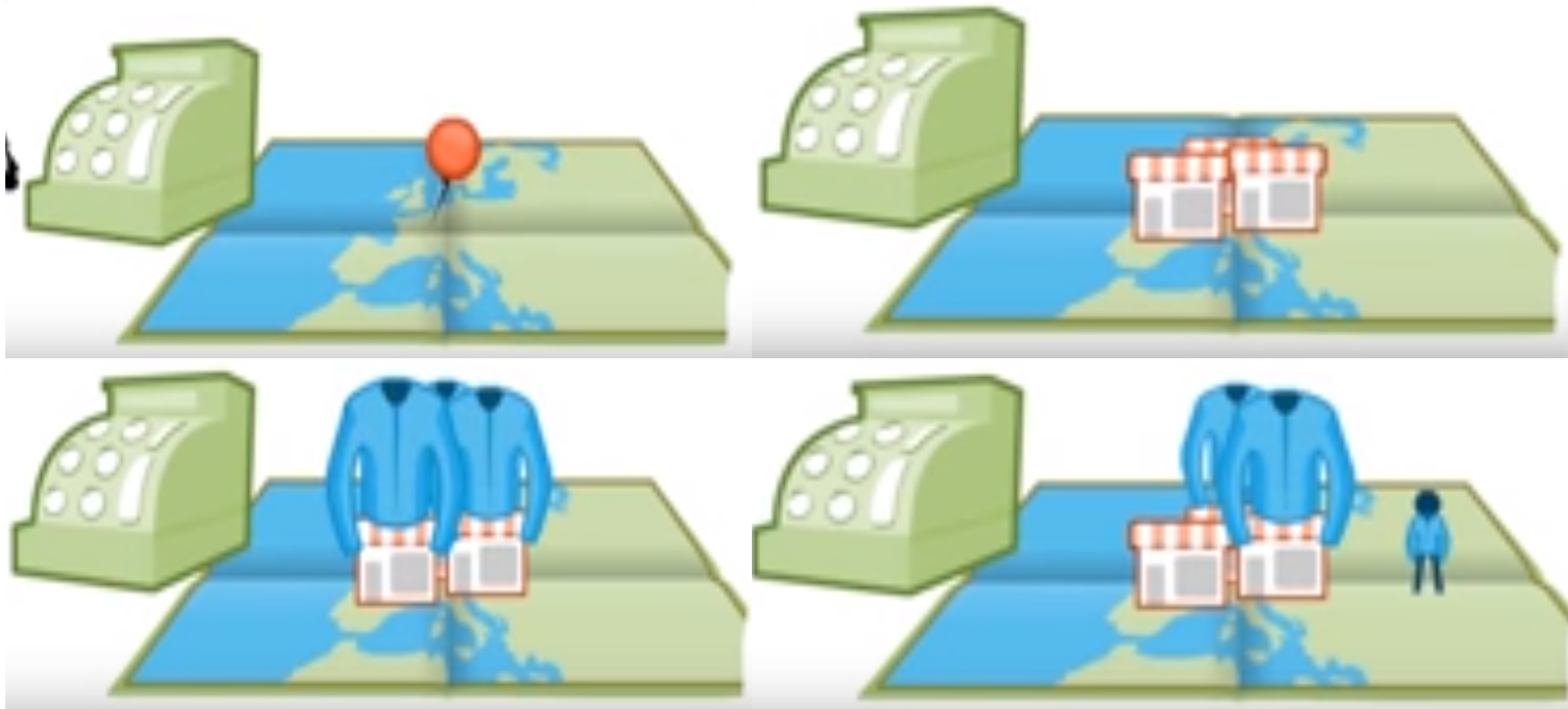
Why GIS??????

Advantages

- With help of GIS, we can easily analyze and identify the Expected Location.
- Easy to Use
- General Purpose Solving Application.
- Allocates the map(How to reach).
- Estimate the Availability of end user(visiting office).

Applications of GIS_Commercial.....

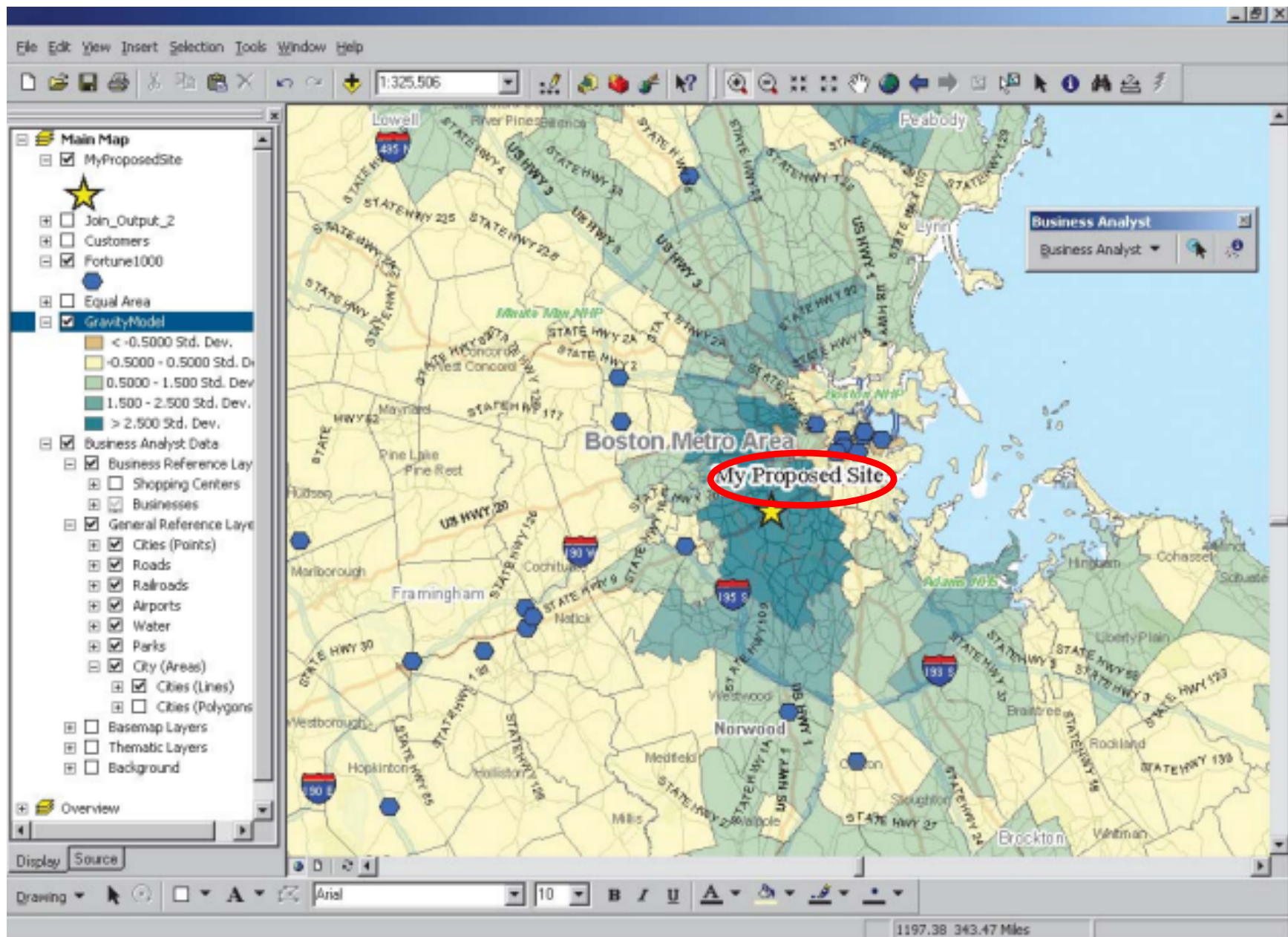
- Retailers use GIS to pin-point the best location for **new stores** and **stock items according** to customers needs.



Applications of GIS_Commercial.....

- Model can be made for predicting consumer spatial behavior, delineating trade areas, locating retail and service facilities, analyzing market performance, simulating different market scenarios, and forecasting sales.
- Your company is looking for a way to visualize your sales data based on geographic, demographic and other types of unstructured data in order to increase profits.

Applications of GIS_Commercial.....



Applications of GIS_Organizations.....

- GIS is used by the conservation organizations to predict the likely consequences of global warming.

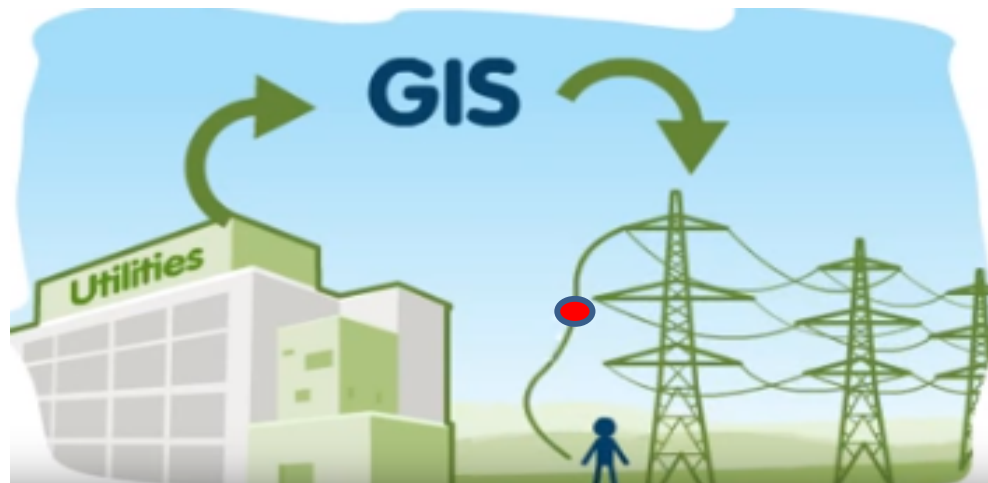


Applications of GIS_Organizations.....

- A company's aim is to provide a construction plan or path for a new pipeline/fiber optic cable installation. This task involves displaying a variety of data, such as environmental data, topographical information, parcel boundaries, a disaster risk layer and other factors that influence how the project will be carried out. For a project like this, even information about where the trees on a site are located is important.

Applications of GIS_Utilities.....

- Utilities organizations use GIS to respond promptly and efficiently to reported power outages.



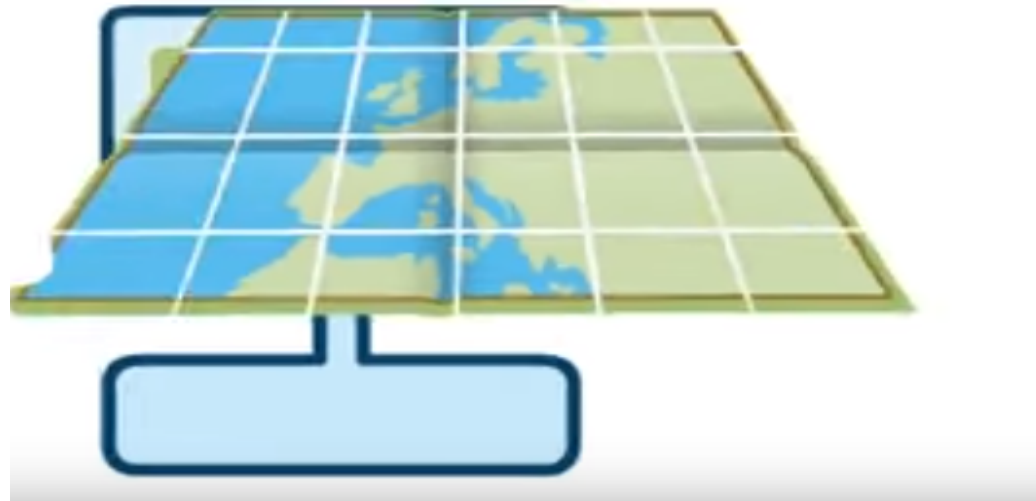
Applications of GIS.....

- Police forces use GIS to discover criminal activity and plan operations much more strategically.



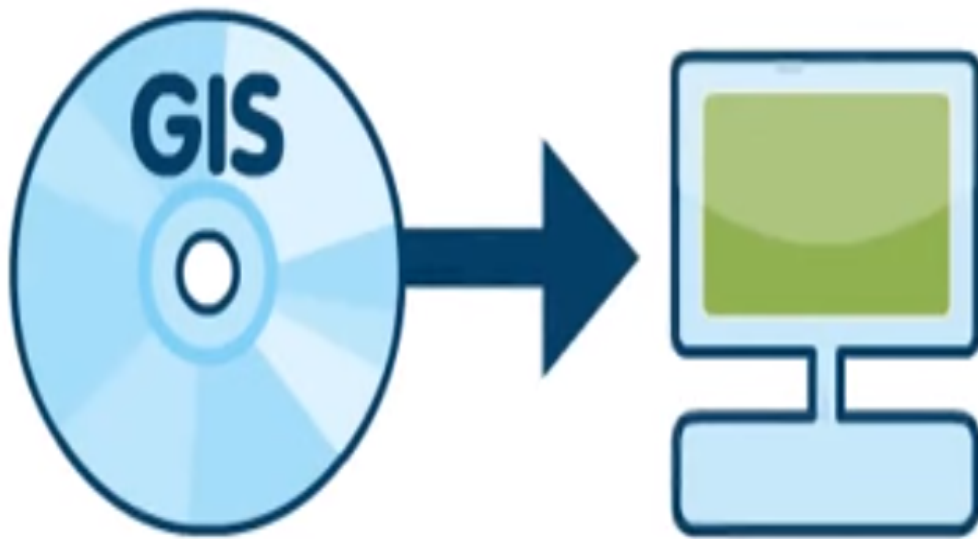
Applications of GIS.....

- Resulting trends can then be seen on a digital map much easier.



How Does a GIS Work??

- GIS software runs on your computer ranging from the most powerful server to software on your mobile phone.



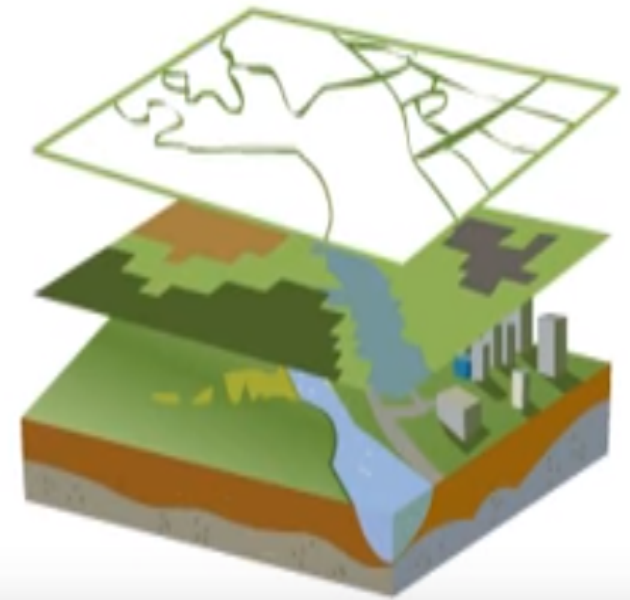
How Does a GIS Work??

- In a GIS information about real world is stored as a collection of thematic layers linked by geography.

GIS



GIS



How Does a GIS Work??

- Each layer contains similar feature such as streets or rivers.

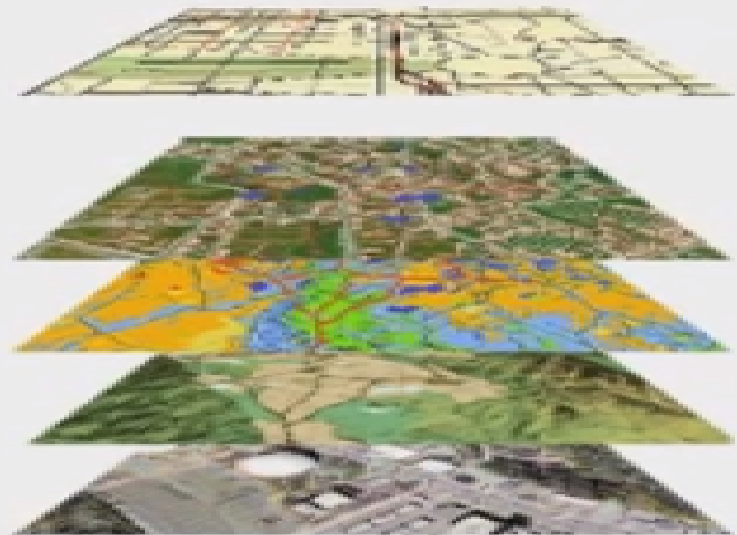
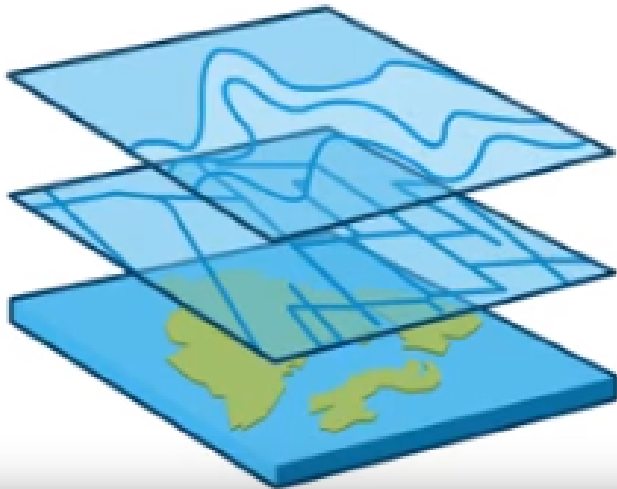
GIS



GIS



GIS



How Does a GIS Work??

- People can analyze the geographic data using GIS tools and visualize data as maps, graphs or charts.



How Does a GIS Work??

- patterns and trends can be easily identified. Information contained in spread sheet previously now comes to life.



Thank You!!