Internet
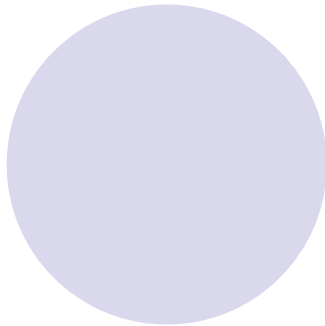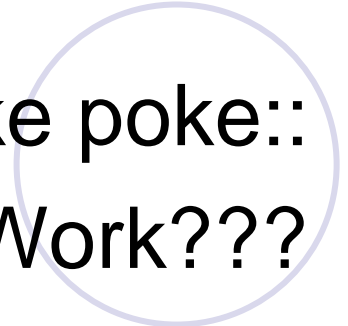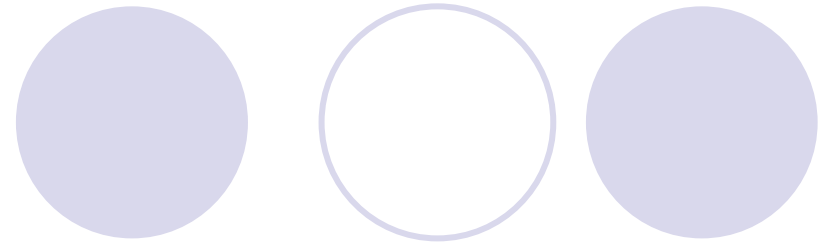
What is it…??? ::poke poke::
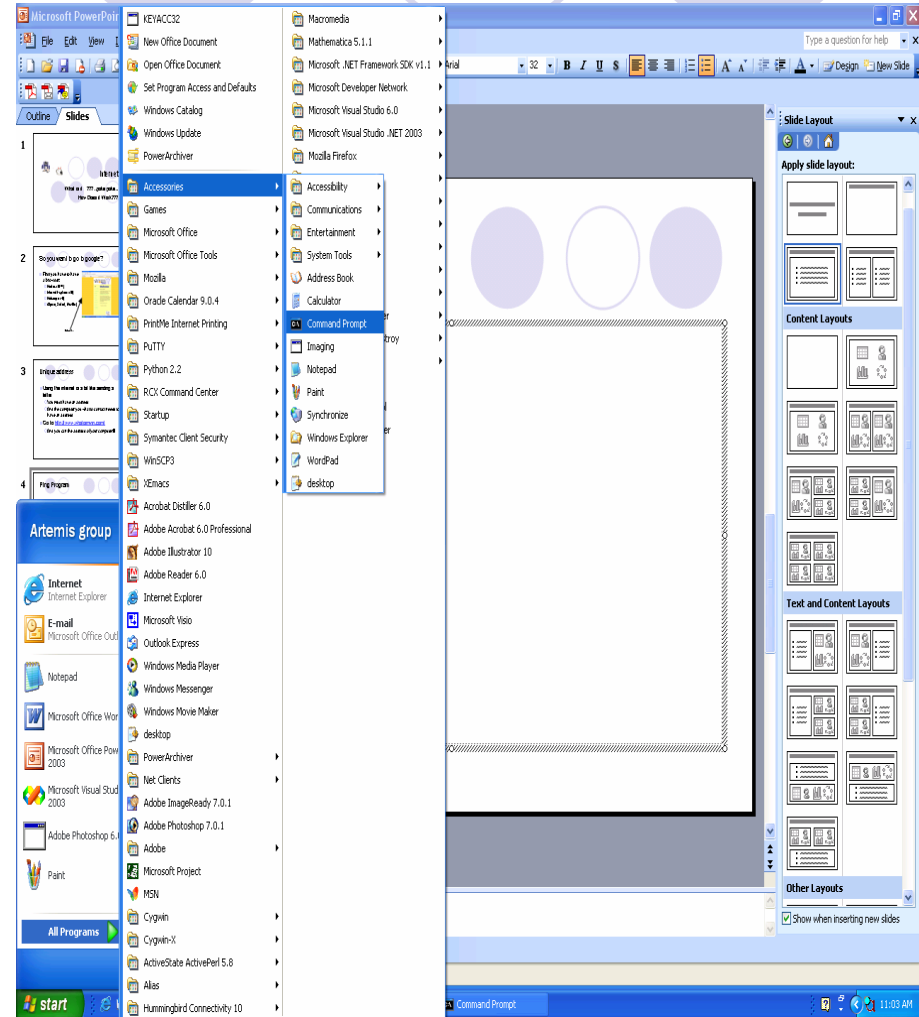
How Does it Work???

Unique address

- Using the internet is a bit like sending a letter
  - You must have an address
  - And the computer you what to contact needs to have an address
- Go to http://www.whatismyip.com/
  - And you get the address of your computer!!!
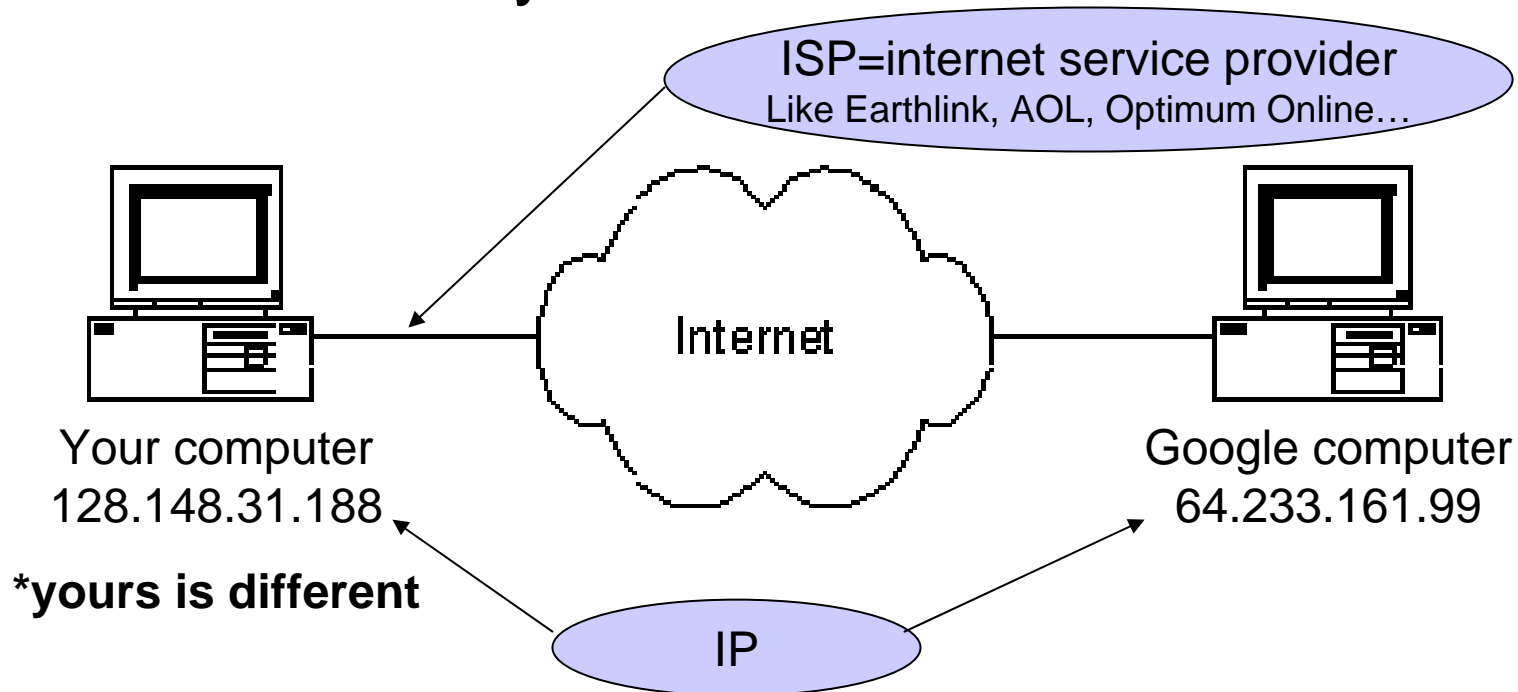
Ping Program

- Go to start →all Programs→ Accessories→Command Prompt
- Type: ping www.google.com
- What's google's address?
  - 64.233.161.99!!!

IP = Internet Protocol

- Both address are IP address
  - IP address are in the form of nnn.nnn.nnn.nnn
  - Where "nnn" is a number from 0-255
- ISP connects you to the internet

ISP=internet service provider
Like Earthlink, AOL, Optimum Online…

Internet

Your computer
128.148.31.188

Google computer
64.233.161.99

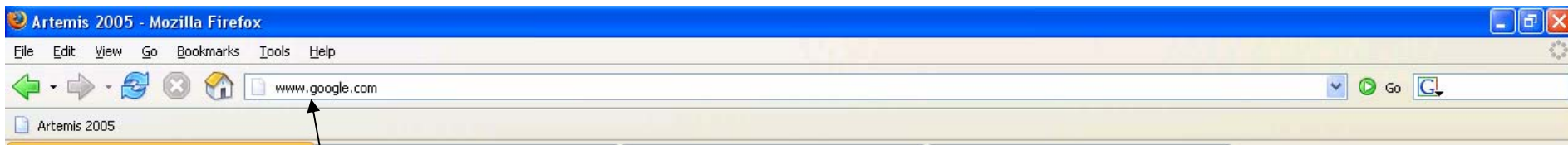***yours is different**

IP

So you want to go to google?

First you have to have a browser:
- Firefox (☺ !!!)
- Internet Explorer (☹)
- Netscape (☺)
- (Opera, Safari, Mozilla)

Browser

You type in a URL….

Type in www.google.com

- URL=Uniform Resource Locator
  - www.yahoo.com
  - www.ebay.com
  - www.google.com

When you type in a URL…

- You are saying, "hello Google!"
- And you want Google to answer you back by displaying the Google front page.
- BUT!!! www.google.com is not a computer address… WE NEED an IP address!!!
- Welcome DNS….

DNS=Domain Name Server

- DNS is like an phone book…
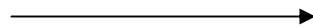 - URL is the name
  - IP is the phone/address

DNS looks up URL
And give the IP

URL	IP
www.google.com	64.233.161.99
www.yahoo.com	216.109.118.71
www.ebay.com	66.135.208.89
(millions more)…	……(many millions more)

Computers don't speak english…

- We need to convert English into electronic signals:
  - First break up the message into packets

Hello Google!	→	He	ll	o
		G	oog	le

←not an accurate representation, but you get the idea…

- But who break it up???
  - Meet TCP: Transmission Control Protocol
    - Don't worry about what it is exactly, just know that TCP will break your information into little packets and IP labels them, so they know where to go.
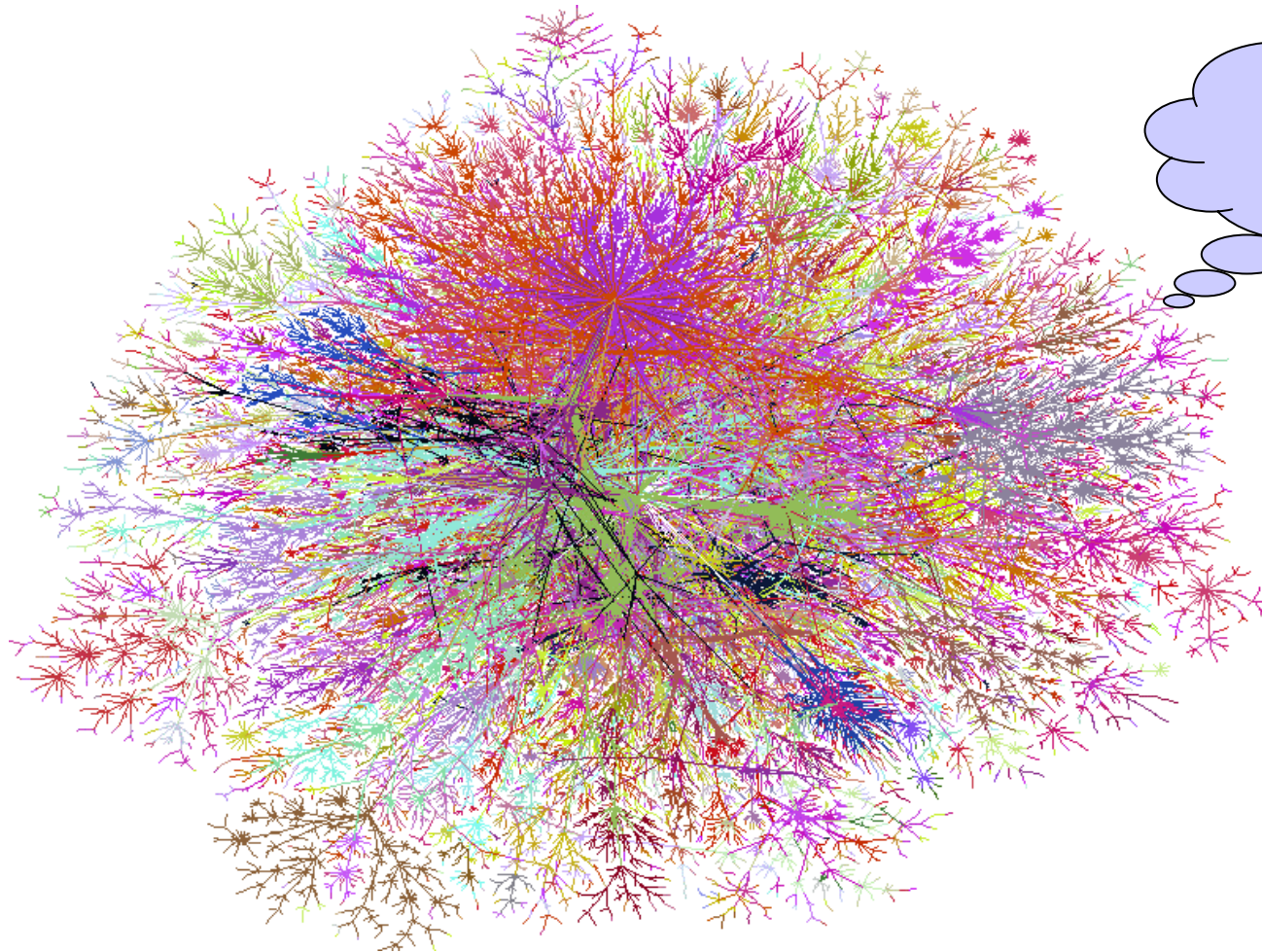
The packets embark on a great quest…

Why does this happen?

- Well because this is how the internet looks like… only with many, many more nodes.
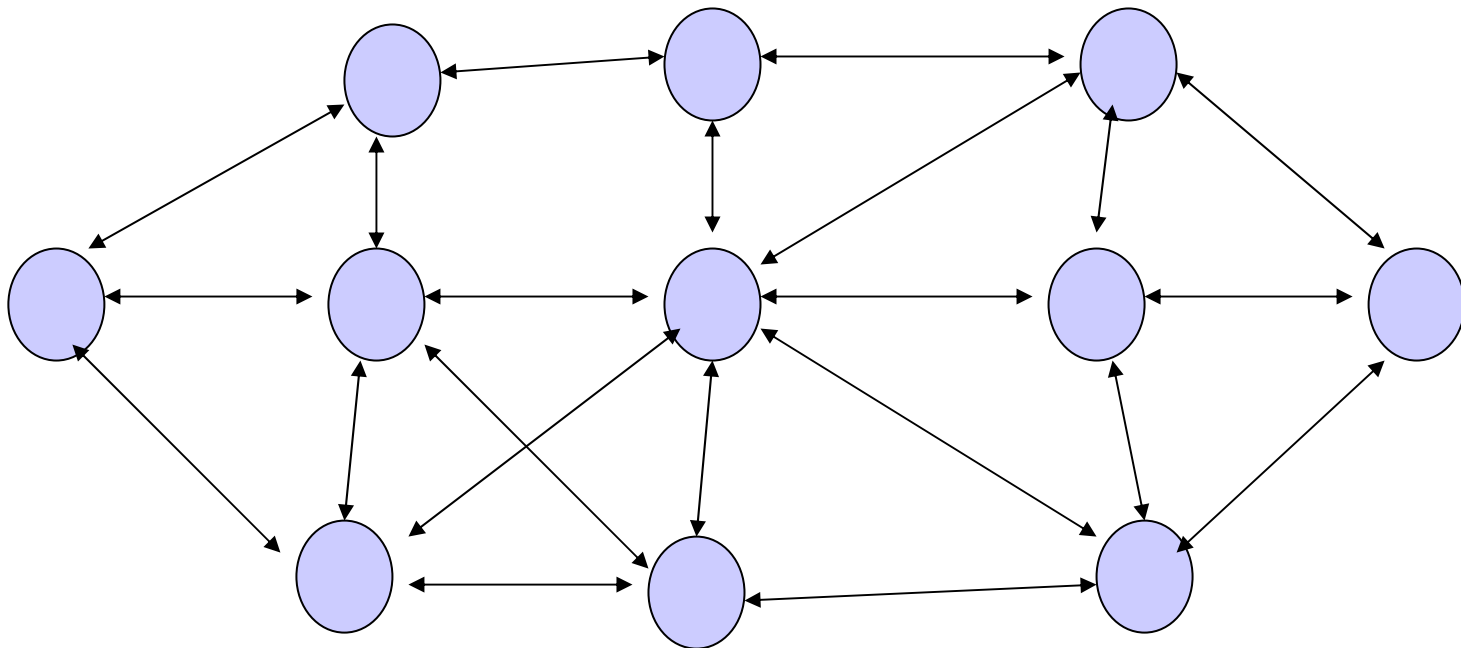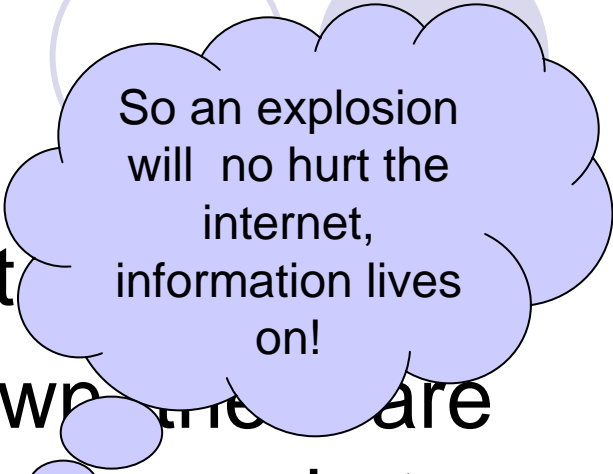
Actually…

The real internet looks something like this

Crazy, right?

Why is it so, WHY???

- Because that's what makes it

- Is one of the routers goes down there are millions more that will guide your packets to their rightful destination.
  - Eh, routers?
    - They are just computer that tell your packets were to go and where not to go, like travel guides!

So an explosion will no hurt the internet, information lives on!

So the packets finally get there…now what?

- The Google server sends packets back with HTML that will be interpreted by the browser, to display the Google front page.
  - A server is just a computer that hold contains the websites (HTML, JavaScript, PHP…etc).

The files are IN the computer??

Phew…