How Proxy Works?

In a network of computers, a Proxy (or a Proxy server) acts as an inter-mediator for relaying of requests from set of clients seeking resources from other set of servers. A Proxy generally while acting on the requests may filter the data based on specific requirement of the Proxy. Most web based Proxy's allows simple HTTP Content transfer like

- **Anonymous browsing** - A Person may not be comfortable browsing the web while keeping his identity revealed..
- **Access to Blocked sites** - ISP blocks several sites for unknown reasons and by using Proxy's we can browse them too..
- **Speed** - Proxys use caching. They cache web-pages from a web server and thus, provide much larger speed for access to resources
- **Malware analysis** - Maybe we have some thinking about a random web-site that its containing malwares like cookie stealers etc etc...So we can test them by using proxy's...
- **Country/Region Restriction** - Some sites have regional/country restrictions like some sites only provide some features to U.S citizens only...So we can get hold of this problem.
  etc..etc.. Practically there are tons of uses of proxy's...and they are very useful..

How Proxy server works

A simple example is

Code:

```
+--------+        +-------+        +--------+
| Client | ===== | Proxy | ===== | Server |
+--------+        +-------+        +--------+
```

As a client using a proxy sends a request to open a site... The request first reaches the Proxy server from there it is treated with the filters... And the requests are passed on to the Hosting server...

The response from the hosting server again follows the same path.. The response from the hosting server is sent to the proxy where the proxy server monitors it ,

treats it with filters and then passes on to the client..

The proxies that are used by the user to where the client enters the name of the server to send the request to are called forward proxy's

Code:

```
+------+         +-------+         +----------+
| User | ===== | Proxy | ===== | Internet |
+------+         +-------+         +----------+
```

When the Proxy server is accessible to any INTERNET user its called a open proxy..

Basically there are millions of free anonymous open proxy's on the net that allows the user to hide their identity while browsing the web..

Some examples of Internet Open Proxy's :-

- http://www.glitterproxy.com/
- http://proxy.org/
- http://www.pr0xy-online.info/
  Beware : Some proxies on the internet are dangerous as they run some sniffer programs on their server to monitor the traffic like login passwords, credit card credentials etc and so it is never safe to be using proxy browsing if you are concerned about the security of browsing.

Code:

```
+----------+          +-------+          +----------+
| Internet | =====  | Proxy | =====  | Internet |
+----------+          +-------+          +----------+
```

Another type of proxy server is reverse proxy it appears as a normal server but the request received are forwarded to another origin server to handle the request...The request coming back are again handled and is returned as if it came directly from the proxy server...

Code:

```
+----------+          +-------+          +------------+
| Internet | =====  | Proxy | =====  | Web server |
+----------+          +-------+          +------------+
```