# Website Design Task 1

## 1.    Glossary

- Web server – A Web Server is either a software or hardware that make use of HTTP and other protocols to deliver, store and process web content which makes it accessible and visible to users. MCAST uses web server to store all the images, videos, documents, data and everything needed for making a web site like CSS, HTML, JavaScript.

- Web Hosting – Web Hosting is a service which provides space for you to store your website files and make it publishable on the internet where people will be able to access and view. MCAST uses Web Hosting to store web pages in servers so that users can access them through the internet.

- IP address – An IP address is a unique set of numbers which is given to every device that is connected to the internet to be able to be identified among a billion other devices connected to the internet. MCAST uses the www.mcast.edu.mt domain which is linked to a public IP address and is translated by DNS.

- Domain Name – IP address is used to locate a website on the internet, but considering it's a string of numbers, they are difficult to remember, so we use Domain Names which converts it to website names which are more user friendly and easier to remember. MCAST uses www.mcast.edu.mt which is the domain name that DNS translates to IP address that is more suitable for computers.

- DNS – Considering Domain Names are more user friendly, but computers need more machine friendly address, DNS converts Domain Names into IP addresses that are necessary to locate wanted webpage. When a user searches up www.mcast.edu.mt the DNS translates that into the corresponding IP address that computers use to locate servers and websites.

- HTTP/ HTTPS protocol – HTTP is a protocol used for exchanging data between a web browser and a web server. It is a set of rules for transfering data. Data is transferred as plain text and any third party could access that data, so we use HTTPS for more safe data transfering. HTTPS uses SSL(Secure Socket Layer). MCAST uses HTTPS since it is a

website which requires a more secure approach considering it stores more sensitive data, like usernames, passwords, personal data.

- SSL/ TLS certificate – SSL/TLS (Secure Socket Layer/Transport Layer Security) is a protocol used for encrypting data that is being sent between the client and the server. In order for a website to use SSL/TLS encryption, SSL/TLS certificate must be obtained for the domain name. Considering MCAST uses https://mcast.edu.mt and not http, we know that SSL/TLS is used to protect the data from being tampered with.

# 2.    Internet services

- The two services are CDN and DNS
- DNS – DNS translates the domain names such as www.Mcast.edu.mt into an IP address which allow computers to locate over the internet, DNS is valuable to users since it is easy to use by simplying writing www.mcast.edu.mt it takes users straight to the website rather than having to write an entire IP address, DNS can be improved by refining their security, privacy and encryption.
- CDN – CDN is a network of servers linked together that allow the content of a webpage to be delivered much

faster and more securely . CDN is valuable to both users and administrators since for users it improves website load times and reduces the bandwith costs through caching, and for administrators it is valuable because it reduces hosting costs with help of caching and other optimizations that reduce the amount of data an origin server must provide, CDN can be improved by having an easier to use UI and improved security measures such as threat protection.