ASSIGNMENT 1 FRONT SHEET

Qualification		BTEC L
Unit number and title		10: Webs
Submission date		
Re-submission Date		
Student Name		
Class		

	Student declaration
	I certify that the assignment submission
	that making a false declaration is a form

Grading grid

P1	P2	P3	P4	M1	M2	M3	D1

✿ **Summative Feedback:** ✿ **Resubmission Feedback:**

Grade:	Assessor Signature:	Date:
Signature & Date:		

Contents

No table of contents entries found.

II. Guidebook

1. Server technologies and management services

1.1 Purpose of Domain Name System (DNS)

In order to connect to a service or device over the internet, one's device must be provided with an IP address of the destination as an identifier. Most connections are established by the user providing the address for the device. However, remembering the IP address for each service that one wants, would be a chore for the user and worsen their experience. For that reason, DNS, a system that translates strings of characters, usually ones that provide a name or short description of what a service or website does into an appropriate IP address, was born. DNS is similar to a phonebook; the user only has to remember the name of the service and it provides the address number (Cloudflare, 2022).

DNS resolution is the process of translating a hostname (such as www.example.com) into a computer-friendly IP address (such as 192.168.1.1). Each device on the Internet is assigned an IP address, and that address is required to locate the relevant Internet device, much as a street address is used to locate a certain residence. When a user requests a webpage, a translation must take place between what the user puts into their web browser (example.com) and the machine-friendly address required to access the example.com webpage (Cloudflare, 2022).

1.2 Types of Domain Name System

DNS has different components and each of them has multiple types. There are 3 types of DNS queries, 3 types of DNS servers, and 10 types of common DNS records.

Types of DNS queries:

- **Recursive Query**: A DNS client presents a hostname in a recursive query, and the DNS Resolver "must" reply with either an appropriate resource record or an error message if it cannot be located. The resolver initiates a recursive query process, beginning with the DNS Root Server and continuing until it locates the Authoritative Name Server (for more information on Authoritative Name Servers, see DNS Server Types below) that contains the IP address and other information for the requested hostname.
- **Iterative Query:** A DNS client submits a hostname in an iterative query, and the DNS Resolver offers the best answer it can. The DNS resolver returns the appropriate DNS entries if they are in its cache. If this is not the case, it directs the DNS client to the Root Server or another Authoritative Name Server that is closest to the appropriate DNS zone. The DNS client must then re-run the query against the DNS server to which it was routed.

References

There are no sources in the current document.