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| **Unit Code:** | ENSN201 |
| **Type of Assessment:** | Formative Assessment |
| **Length/Duration:** | One page of answer |

**Week 2**

**Chapter 2: E-commerce Infrastructure**

Q1. Explain with example how domain name system (D N S) works**.**

Ans:

**Introduction to DNS**

The Domain Name System (DNS) is a critical component of the internet infrastructure. They translates domain names, those are easy for humans to remember, into IP addresses, computers use that to communicate with each other.

**How DNS Works**

Here's a step-by-step explanation of how DNS works:

1. **User Request**: A user types a URL into their web browser, such as [www.example.com](http://www.example.com/).
2. **DNS Query**: The browser sends requests to a DNS resolver ( provided by the operating system or internet service provider) to resolve the domain name into an IP address.
3. **DNS Resolver**: The DNS resolver breaks down the domain name into its components (e.g., subdomain, domain, top-level domain) and queries a DNS server for the IP address associated with the domain.
4. **DNS Server Hierarchy**:
   * **Root DNS Servers**: These are the first point of contact. They direct the query to the appropriate top-level domain (TLD) servers.
   * **TLD Servers**: These handle queries for specific TLDs (e.g., .com, .net). They direct the query to the authoritative name servers for the domain.
   * **Authoritative Name Servers**: These servers are responsible for the domain and provide the IP address associated with it.
5. **Response**: When IP address is found, it is returned to the DNS resolver, which then provides it to the user's browser.
6. **Connection**: Browsers uses IP addresses to connect to the server hosting the website, then the user can view the content.

**Example**

If we want to visit [www.google.com](http://www.google.com/)

* **User Request**: Type [www.google.com](http://www.google.com/) into the browser.
* **DNS Query**: Browser sends a request to a DNS resolver.
* **DNS Resolver**: The resolver queries a root DNS server, which directs it to a .com TLD server.
* **TLD Server**: The .com server directs the query to Google's authoritative name servers.
* **Authoritative Name Server**: Google's servers return the IP address associated with [www.google.com](http://www.google.com/), such as 216.58.194.174.
* **Response**: The IP address is returned to your browser.
* **Connection Established**: Browser connects to the server at 216.58.194.174, and we see Google's homepage.

Q2. ABC gift company in Australia wants to setup an e-commerce portal for the business. They would like to sell gift items to Australia and New Zealand market. You have been assigned as an e-commerce consultant for this company. Please provide a guide for this business to setup the e-commerce portal.

Ans:

Setting up an e-commerce portal for ABC Gift Company involves several key steps to ensure a successful online presence in the Australian and New Zealand markets.

Step-by-Step Guide

1. Market Research and Planning

* Identify Target Audience: Understand the demographics and preferences of potential customers in Australia and New Zealand.
* Competitor Analysis: Analyze existing e-commerce platforms selling similar products in these markets.
* Business Model: Decide on the business model (B2B, B2C, or both).

2. Domain Name and Hosting

* Domain Name Registration: Register a domain name that reflects the brand (e.g., abcgifts.com.au).
* Web Hosting: Choose a reliable web hosting service that supports e-commerce platforms and has good uptime and customer support.

3. E-commerce Platform Selection

* Platform Options: Consider popular e-commerce platforms like Shopify, WooCommerce, or Magento.
* Customization: Ensure the platform allows for customization to fit the brand's identity and user experience requirements.

4. Product Catalog and Content

* Product Listings: Create detailed and high-quality product listings with images and descriptions.
* Content Strategy: Develop a content strategy that includes blog posts, product guides, and customer testimonials.

5. Payment and Shipping Integration

* Payment Gateways: Integrate secure payment gateways like PayPal, Stripe, or local options like Afterpay.
* Shipping Options: Set up shipping options that cater to both Australian and New Zealand markets, including estimated delivery times and costs.

6. Security and Compliance

* SSL Certificate: Install an SSL certificate to ensure secure transactions.
* Compliance: Ensure compliance with local laws and regulations, such as consumer protection laws and tax requirements.

7. Marketing Strategy

* SEO: Optimize the website for search engines to improve visibility.
* Social Media: Utilize social media platforms for marketing and customer engagement.
* Email Marketing: Develop an email marketing strategy to retain customers and promote new products.

8. Launch and Maintenance

* Testing: Conduct thorough testing before launch to ensure all features are working correctly.
* Post-Launch Review: Monitor performance, gather feedback, and make necessary adjustments to improve the user experience and conversion rates.

**Marking Guide (Rubric):**

**Total Marks: 20**

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| **Marking Criteria** | **Lecturer Expectation** | **Marks** | **Comments** |
| Analysis | Questions answered and covered in Depth |  |  |
| Concept | Demonstrates good understanding of key concepts |  |  |
| Idea | Original and creative thoughts |  |  |
| Critical Analysis | Critical and evaluative analysis of relative importance of issues |  |  |