FAKULTI TEKNOLOGI MAKLUMAT
DAN KOMUNIKASI
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
BITS 3363 – NETWORK SECURITY
PROJECT MANAGEMENT

ASSIGNMENT 1

Title: Define Structure and Work Schedule

(Group name - domain area: client name)

Group KeepAlive – Car Manufacturer – Proton

GROUP MEMBERS (MAXIMUM 6 PERSONS IN A GROUP)

1. Muhammad Izham Bin Norhamadi (B032020039)
2. Ahmad Sha Herizam Bin Tahir (B032020009)
3. Muhammad Imran Bin Rosli (B032020043)
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5. Affendy Elyas bin Azhari Sharidan (B032020024)
6. Muhammad Rifqi Bin Ramlan (B032020028)

INSTRUCTIONS

- **Maximum 6 students in a team. If you have no team, you are allowed to do the assignment alone.**
- **Choose your client from Client domain and name.docx in Table 1.**
- **Assignment 1 is part of the Project Report documentation.**

ASSIGNMENT QUESTIONS

Assignment 1 consists of three parts that is part A, B and C. The purpose of assignment 1 is to define structure and work schedule for protecting the data against cyber-attacks and threats in the network environment.

Part A

- Identify your **client's nature of business** either government, public or private sectors. The field could be in medical, transportation, oil and gas, business, power energy or education sector.
- Understanding the client's preferences and size of the company (is it SMEs, enterprise or limited).

Proton Holdings Berhad known as Proton is a car manufacturer which was established in 1983, where former prime minister of Malaysia, Tun Dr. Mahathir Mohamad conceived a vision to produce a national car.

Proton in its early existence was a joint venture company where they used to manufacture rebadged versions of Mitsubishi Motors (MMS) products in the 1980s and 1990s. In the year 2000, Proton managed to produce its first non-badge engineered car although still using Mitsubishi-engined. The first national car ever produced by Proton is Proton Saga.

Proton was owned in majority by HICOM with minority stakes is hold by Mitsubishi Group. In 2012, Proton was fully acquired by DRB-HICOM after Mitsubishi divested their stake to Khazanah Nasional in 2005. Proton has expanded their businesses to over 70 countries to date.

(10 Marks)

Part B

- Understand the problem occurred in the product development, service given to customers or solutions provided by listing the assets, attacks, threats, risk and risk mitigation plan in the identification process.
- In the problem you have identified, brainstorm and extract the information by using Table 2. Example in Table 2 gives you some guidance.

(10 Marks)

3 pillars of cyber security	Assets	Assets Description	Vulnerability	Threats	Risks	Risk Mitigation
People	• Talent • Strength • Discipline • Loyalty • Smart	• Employee	• Inconsistent • Learning curve • Health condition • Family status	• Careless • Irresponsible • Corruption	• Low in productivity • Low in work quality	• Job posting • Training
Process	• Policy • Rules and regulations • Term and conditions	• Car manufacturing process • Quality control • Account authentication	• RFID skimming • Piggybacking • Tailgating	• Confusion of process • Forgetful • Ignorance • ill intent	• Bottleneck production • Dictionary attack • Brute force • Phishing • Social engineering	• Fully train employee • Awareness campaign
Technology	• Hardware	• Car Manufacturing Machine • Router • Computer • Switch • Server	• Faulty machine • Software patches • Backdoor • Bug	• Failure in car manufacturing machine • Mishandling machine • No electricity • Natural disaster	• Loss of assets • Re-direction of path	• Machine Maintenance • Hardware redundance • Firewall
	• Software	• Proton manufacture management system	• Data reliability	• Data breach • Malware attack	• Leak of confidential data	• Proxy • Backup and recovery • Antivirus

Table 2: Identification (List of asset, vulnerability, threat, risk and risk mitigation)

- Identify the network architecture or physical topology of your client. Show the number of servers (IDS/ESM/DNS/etc), CCTV, routers, switches, access control system and monitoring tools.

(15 marks)

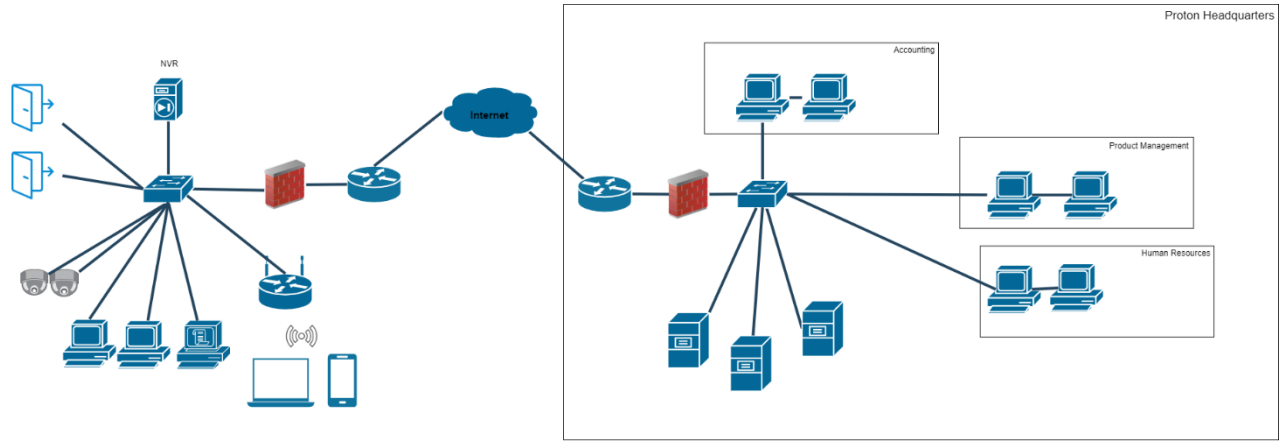

Figure 1: Network Architecture of company ABC

Part C

- Find the problem and provide the solution for your client. The objective of the solution is to protect the data and system inside the organization's network.

Problem	Solution
Highly sensitive data are valuable to cyber criminals	Protect data with strict authentication policy on digital site and business premise
Loss of data due to malware or power failure	Save and backup files regularly in multiple platforms
Productions will be halted if there was a system malfunction	Prepare a failsafe plan and ensure backups are maintained
Data theft due to the data vulnerability	Make a powerful encryption and setup password for the data

- Define the structure and identify work breakdown schedule in **a form of a tree** and put it in as in Figure 2.

(15 marks)

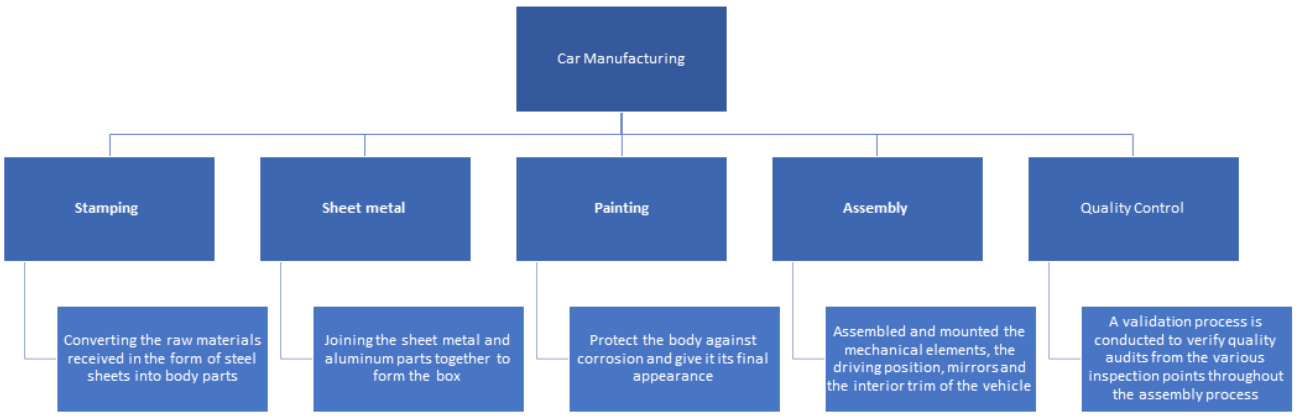

Figure 2: Work Breakdown Schedule Car Manufacture

Assessment: [Assignment 1] – (5%) – [PO7, P4]