**ASSIGNMENT**

Use the 6 core functions to discuss potential risks faced in the technology and software development industry.

* **DATA BREACH**

**Identify**: This includes recognizing sensitive data the company keep such as customers information,employee data and financial record

**Protect**: Secure the identified sensitive data by implementing strong security measures. This includes multi-factor authentication measures, firewalls and access controls to ensure only authorized personnel can access critical data.

**Detect:** Set up systems to monitor network activity and detect unusual behavior, such as unauthorized access attempts, data exfiltration, or malware activity.

**Respond**: Develop and maintain an incident response plan that outlines the steps to take if a data breach is detected. E.g isolating affected systems, Installing antivirus software.

**Recover**: By focusing on recovering and restoring affected systems and data from backups.This will ensure that all compromised systems are cleaned of any malware or unauthorized access points.

**Govern**: Ensure that the organization complies with all relevant data protection regulations (like GDPR, HIPAA) and that breaches are reported within required timeframes. This also includes keeping a record of all incidents and the responses taken.

* **RANSOMWARE AND MALWARE**

**Identify:** Ascertain critical data, files that can be the potential target for the ransomware attacks such as financial records.

**Protect**: This ensures all important files or data are backed up and are secured offline in other to prevent them from being encrypted by ransomware.

**Detect**: Detect unusual behavior by setting up monitoring tools to recognize unusual behavior such as unauthorized access to important systems.

**Respond:** if ransomware is detected, it should be communicated to the incident team and systems affected should be isolated immediately to prevent the spread to other part of the network.

**Recover:** Restore the affected systems and data from the backups. Ensure that the ransomware is permanently removed before reconnecting to the network.

**Govern:** Security policies should be put in place regarding software installation, email usage, and internet browsing to minimize the risk of ransomware and malware infections.