

B108 Data Governance, Security  
and Ethics

Individual Final Presentation

GH1019648

# Agenda

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# Introduction

SmartCart Online Shop is a well-known and reliable online merchant that caters to customers in many countries.

As a company they deals with a lot of private information about their clients, including financial and identity-related data.

# Problem



Data breaches



Unauthorised price  
modification



Website Downtime  
Due to Hardware  
Failure



Insufficient Security  
Controls



Lack of Security  
Culture and Awareness

# Scope of the security assessment

- Policies and procedures
- Physical Security
- Technical Security
- Security Culture and Awareness



# Risks and Consequences



Legal Consequences



Financial Consequences



Customer Trust and Reputation



Business Continuity

# Risk assessment

Problem	Risk Category	Impact Level	Likelihood Level	Solution
Data breaches	Customer Data	High	High to Medium	Strengthening physical and technical security safeguards, putting encryption into place, performing routine security audits and assessments
Unauthorized price modification	Financial Impact	High	High to Medium	Implement strong monitoring and authorization mechanisms, and routinely train staff on security awareness and access controls
Website Downtime Due to Hardware Failure	Operational Disruption	High to medium	Medium	Regular maintenance and monitoring, disaster recovery strategy, redundant systems
Insufficient Security Controls	Financial Impact	High to Medium	Medium	Implement and enforce strong access rules, conduct simulated phishing exercises, and conduct routine security assessments and audits.
Lack of Security Culture and Awareness	Reputation	High	Medium	Implementing a reporting mechanism for security events, training employees on best practices for security, and awareness campaigns on new dangers

# Security Plan Overview



Policies and  
Procedures



Physical Security  
Controls



Technical Security  
Controls



Security Awareness  
and Culture

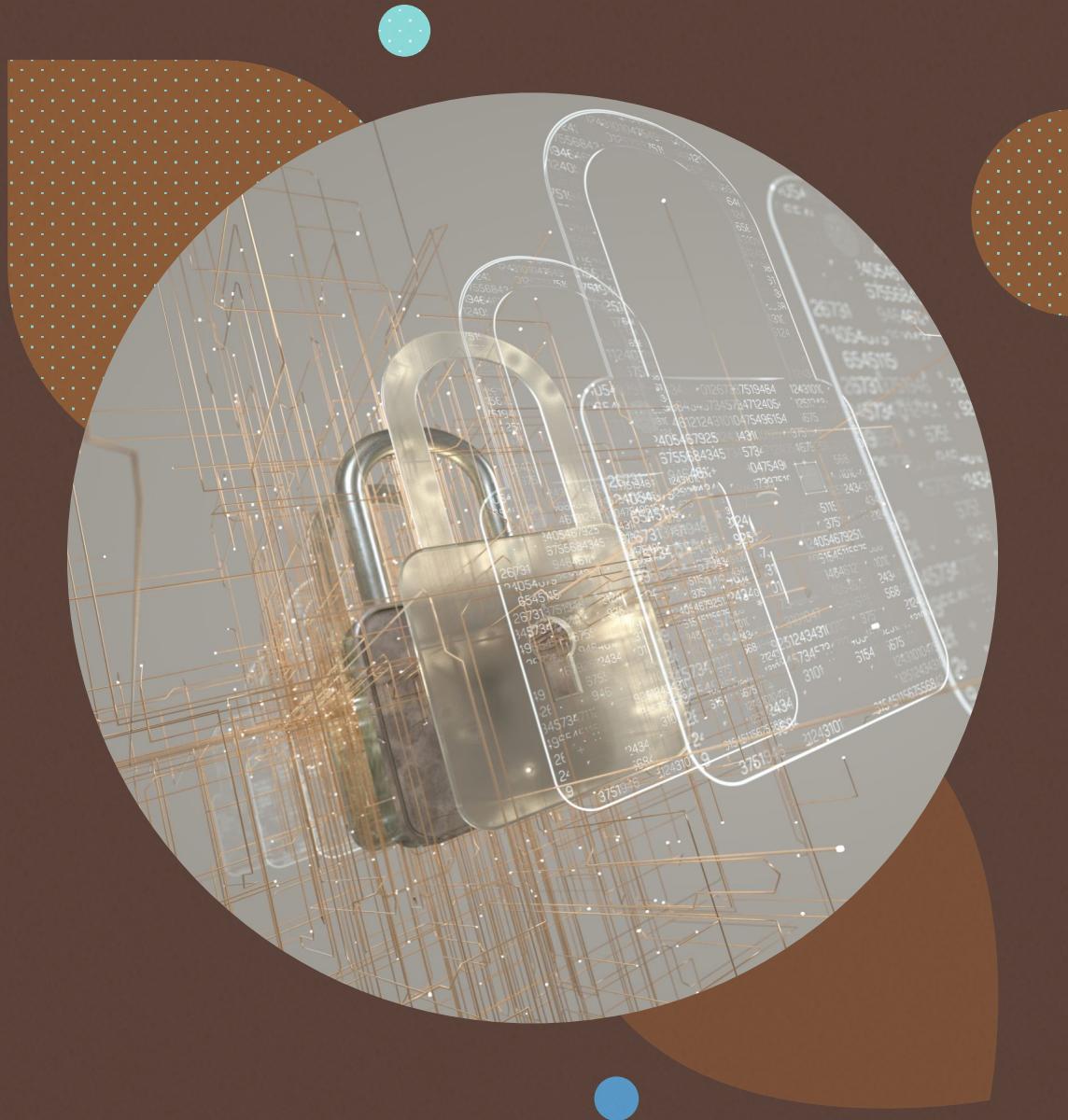
# Security Culture

Employee Training

Awareness Campaigns

Reporting Mechanism

Simulated Phishing Exercises



# System reliability



## Redundancy and Fault tolerance

Include redundant devices, such as servers, power supplies, and storage devices, to guarantee system availability even in the event of hardware failures.



## Regular Maintenance and Monitoring

Perform routine health checks, firmware updates, and performance improvements to prevent hardware failures caused by outdated or damaged components.



## Disaster Recovery Plan

Create an in-depth disaster recovery strategy with steps for handling hardware problems, including backup and restoration procedures.

# Strengthening Physical and Technical Security Controls

Physical Security Controls	Technical Security Controls
<ul style="list-style-type: none"><li>• Implement access control systems, such as key cards or biometric authentication, to restrict unauthorized physical access to sensitive areas.</li><li>• Deploy surveillance systems, including CCTV cameras, at critical locations to monitor and record activities.</li></ul>	<ul style="list-style-type: none"><li>• Implement network segmentation to isolate critical systems and restrict unauthorized lateral movement within the network.</li><li>• Deploy robust firewall configurations to filter and control incoming and outgoing network traffic.</li></ul>

# Enhancing Policies and Procedures

What?

Why?

Data Classification



To safeguard data against illegal access and misuse.

Access Controls



To safeguard private information, including client information.

Incident Response



Helps to reduce damage, speed up recovery, resume commercial operations, and cut costs.

Data Breach Notification



Must let their clients and other parties know about the violation

# Conclusion

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To reduce risks, safeguard consumer data, and ensure regulatory compliance, the security plan must be put into action.

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For continuous protection against changing threats, ongoing monitoring, recurring security assessments, and changes to security measures are crucial.

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By proactively making investments in information security and governance, ABC online shop can increase customer confidence, protect its reputation, and guarantee company continuity.



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### Assessment Submission Form

<b>Student Number</b> (If this is group work, please include the student numbers of all group participants)	GH1019648
<b>Assessment Title</b>	Individual Final Presentation
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<b>Module Tutor</b>	Prof. Alireza Mahmoud
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#### Declaration of Authorship

I declare that all material in this assessment is my own work except where there is clear acknowledgement and appropriate reference to the work of others.

I fully understand that the unacknowledged inclusion of another person's writings or ideas or works in this work may be considered plagiarism and that, should a formal investigation process confirms the allegation, I would be subject to the penalties associated with plagiarism, as per GISMA Business School, University of Applied Sciences' regulations for academic misconduct.

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