

Lab 1

1. CIA Triad Analysis of Cyber Incidents

A. 2017 Equifax Data Breach

Primary CIA Impact: Confidentiality

Justification: Hackers accessed 150 million people personal and financial data

Secondary Impact: Minor integrity and availability concerns

B. Stuxnet Worm

Primary CIA Impact: Integrity

Justification: Manipulated industrial control systems causing physical damage.

Secondary Impact: Availability affected due to equipment breakdown

C. 2016 Dyn DNS DDos Attack

Primary CIA Impact: Availability

Justification: DDos disrupted major website access across the region

Secondary Impacts: Integrity and Confidentiality remained intact

D. 2021 Colonial Pipeline Attack

Primary CIA Impact: Availability

Justification: Ransomware caused fuel pipeline shutdown across US East Coast

Secondary Impacts: Integrity accessed through encrypted systems

E 2023 MOVEit Supply Chain Attack

Primary CIA Impact: Confidentiality

Justification: Zero day vulnerability exploited to steal sensitive data across organisations

Secondary Impacts: Minor integrity risks

F 2020 SolarWinds Attack

Primary CIA Impact: Integrity

Justification: Malicious code inserted into trusted software updates

Secondary Impacts: Confidentiality affected due to espionage

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2. Assessment Introduction – Career Research and Skill Gap Analysis

Step 1. Job Posting Links

1. Digital Graduate Programme – https://www.brightnetwork.co.uk/graduate-jobs/sky/digital-graduate-programme?search_id=de7844cd211fc1fbf16c18b7b6c517fe&search_position=1
2. Technology Engineering Scheme - https://www.brightnetwork.co.uk/graduate-jobs/lloyds-banking-group/technology-engineering-graduate-scheme-2026?iref_position=3&iref_source=search&iref_section=recommendations&iref_id=hp-fXgrb5A1uZzbWwq
3. Support Technician(EUC) - https://www.stewardship.org.uk/sites/default/files/2025-12/support_technician_euc_applicants_pack_v2.pdf

Step 2 & 3 Company Research Summaries

1. Sky

Sky is a leading media and technology company across Europe, and through my research I've learned that they invest heavily in digital innovation and user-focused technology. I appreciate that Sky fosters a culture of creativity, collaboration, and continuous learning, especially for graduates.

From what I've seen, Sky has a strong reputation for producing high-quality digital products and leading in customer-centric design. I believe this company is a good fit for me because I enjoy solving technical problems in creative environments and I want to grow within a forward-thinking digital team. Their structured development programmes and supportive graduate culture align well with the way I like to learn and develop professionally.

2. Lloyds Banking Group

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Lloyds Banking Group is one of the UK's largest financial institutions and has been transforming its technology landscape through major investments in cybersecurity, cloud engineering, and digital infrastructure. In my research, I found that they promote a culture built on responsibility, trust, and continuous improvement, which I value.

Lloyds is well-known for its digital transformation and the stability it offers graduates entering technology roles. I think this company is a strong fit for me because I want to work on large-scale engineering projects that have a real impact on the public. Their structured training, commitment to innovation, and supportive environment make it a great place for me to grow in areas like cloud, DevOps, or digital engineering.

3. Stewardship

Stewardship is a UK-based charity supporting Christian organisations and donors, and I discovered that they combine financial services with a mission to empower generosity. Their culture is clearly people-focused, community-driven, and rooted in Christian values, which resonates strongly with me.

Despite being smaller than the other companies, Stewardship has a strong reputation for ethical service and trust within the charity sector. I feel this organisation is a good fit for me because I value meaningful work and enjoy being part of a supportive, mission-driven environment. The role also gives me hands-on IT experience while allowing me to contribute to a cause that aligns closely with my faith and values.

Step 4 Skills Analysis Table

Required Skill / Qualification	I Have This Skill (Yes / Developing / No)	Evidence / Example	How to Develop (If Needed)
General Digital & Technology Skills	Developing	University computing modules, project work, lab experience	Continue hands-on projects; complete online technical courses
Understanding of Software Development / Engineering	Developing	Completed modules involving Node.js, Express, EJS, MySQL	Build more full-stack apps; learn system design fundamentals

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Basic Programming (Python / JavaScript)	Developing	Coursework in JS, Node.js projects, scripting	Build automation scripts; practise Python through cybersecurity tasks
Cloud Technologies (AWS / Azure / GCP)	No	—	Take AWS Cloud Practitioner or Azure Fundamentals certification
Agile / Scrum Ways of Working	Developing	Group project collaboration at university	Take short Agile/Scrum training; join student-led Agile projects
Problem Solving & Analytical Thinking	Yes	Debugging Node apps, fixing MySQL errors, coursework problem-solving	Keep practising through coding challenges and SOC-style exercises
Communication Skills (Written & Verbal)	Yes	Group presentations, research reports	Improve by engaging in more presentations and documentation tasks
Customer Service / End-User Support	Developing	Helping peers troubleshoot code and university IT-related tasks	Get part-time/volunteer IT support experience; practise ticket handling
Windows OS Administration	Developing	Experience using Windows + basic troubleshooting	Learn AD, GPO, device management; practice via virtual labs
macOS Support	No	—	Watch Apple support training; practise on available Mac devices
Mobile Device Support (iOS/Android)	Developing	Personal experience managing devices	Learn MDM tools; explore enterprise

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			mobile security fundamentals
Hardware and Peripheral Troubleshooting	Developing	Basic experience fixing laptops, devices	Practise structured troubleshooting; engage in hands-on repair tasks
Networking Fundamentals	Developing	Networks & Systems Security module	Complete TryHackMe networking rooms; CCNA-style practice
Incident & Request Management (e.g., ticketing systems)	No	—	Learn Jira, ServiceNow fundamentals; simulate IT support workflows
Ability to Work Under Pressure / Fast-Paced Environment	Yes	Managing deadlines for multiple university modules and projects	Keep developing through internships, events, and real-world tasks
Teamwork & Collaboration	Yes	Group projects (Data Visualisation, DWA apps)	Continue collaborating on technical projects
Attention to Detail	Yes	Debugging code, identifying errors in SQL and Express apps	Strengthen through secure coding and lab exercises
Cybersecurity Awareness	Developing	Cyber pathway student; labs on security fundamentals	Take additional cybersecurity labs; study NIST, OWASP, SOC skills
ITIL or Basic IT Service Management Knowledge	No	—	Complete ITIL Foundation training (or free introductory courses)

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Digital Mindset / Willingness to Learn New Tools	Yes	Constantly learning via coursework, labs, and projects	Continue adopting new platforms and technologies
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Action Plan

1. Improve Cloud Skills

- Complete AWS Cloud Practitioner or Azure Fundamentals
- Use cloud free tiers to deploy simple apps

2. Strengthen Technical Support & Troubleshooting

- Practise Windows/macOS admin via virtual labs
- Learn common support tools (MDM, Intune, JAMF, Active Directory)

3. Build Ticketing & IT Service Management Knowledge

- Learn the basics of ServiceNow or Jira
- Take an introductory ITIL course