



T-LEVELS
THE NEXT LEVEL QUALIFICATION

T Level resource improvement project

**Supporting holistic delivery: developing learning
activities to integrate core and occupational
specialism content**

Association of Colleges is working in partnership with the Education and Training Foundation to deliver this offer. This offer is funded by the Department for Education.

Session 2: Lesson plan

Learning objectives	The concepts involved in data entry and maintenance, including the purpose and application of legislation, industry standards and regulatory compliance <u>Core knowledge and skills:</u> R3.4 The concepts involved in data entry and maintenance • Data entry: ○ reducing risk of data entry errors (validation and verification) ○ privacy (compliance with standards and legislation for usage and storage). <u>Occupational specialism: Digital infrastructure pathway</u> PO1: Apply procedures and controls to maintain the digital security of an organisation and its data K1.23 The purpose and application of legislation, industry standards and regulatory compliance and industry best practice guidelines for the security of information systems within digital infrastructure <u>Skills development in Occupational specialism: Digital infrastructure pathway</u> S1.6 Demonstrate continuous improvement through the application of risk mitigation in maintaining the digital security of an organisation and its data in a digital infrastructure context See slide deck for lessons relating to the above.			
Timing	Learning activities	Resources/links	Formative assessment	Technical Qualification (TQ) specification coverage
5–10 minutes	Learning objectives Discuss the learning objectives set. Prior learning check Learners to write their	Sticky notes for starter activity	Assessment of prior knowledge on data storage	

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	answers on sticky notes for each starter activity question below, based on last week's session. 1. What is meant by temporal data? 2. Which department will collect and store employee data? 3. What is website traffic? 4. What is the difference between a data lake and a data warehouse? 5. What is open data?			
25 minutes	Tutor-led Tutor will explain the concepts involved in data entry and maintenance. Learner activity 1 Data entry task: learners to be given a timed data entry task. An example of an	PowerPoint Session 2.pptx Session 2 Activity 1 - Student version.docx Session 2 Activity 1- Tutor version.docx	Tutor questioning to check for understanding during delivery Self-assessment of responses to questions	<u>Core knowledge and skills</u> R3.4 The concepts involved in data entry and maintenance • Data entry: • reducing risk of data entry errors (validation and verification)

	appropriate task would be the requirement to manually enter values into a spreadsheet. This should last no longer than 15 minutes. Following completion, the tutor will discuss the answers with the class. Learners should be encouraged to reflect on their experiences through class discussion. This should include what errors they overcame during the data entry task and how they solved the problem.	Flipcharts and marker pen for group discussion Microsoft Excel	Learners work in groups to share their responses	- privacy (compliance with standards and legislation for usage and storage). <u>Occupational specialism: Digital infrastructure pathway</u> PO1: Apply procedures and controls to maintain the digital security of an organisation and its data K1.23 The purpose and application of legislation, industry standards and regulatory compliance and industry best practice guidelines for the security of information systems within digital infrastructure
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25 minutes	Tutor-led Tutor to introduce the concepts involved in data entry, relating this to the learners' experiences with the previous data entry task. Learner activity 2 Learners to find a website that includes a data entry screen – for example, a retail website such as ASOS ASOS Join ASOS. Investigate the validation techniques that have been used and the error messages shown when a data entry error has been made. On completion, learners will discuss in group how using validation techniques and error messages will decrease the impact of data entry errors on the website's owner, taking into	Information on PowerPoint Session 2.pptx, slides 4–10 Flipcharts and marker pen for group discussion Computers with internet access for research	Tutor questioning to check for understanding during delivery Self-assessment of responses to questions Learners work in groups to share their responses	<u>Core knowledge and skills</u> R3.4 The concepts involved in data entry and maintenance - Data entry: - reducing risk of data entry errors (validation and verification) - privacy (compliance with standards and legislation for usage and storage). <u>Occupational specialism: Digital infrastructure pathway</u> PO1: Apply procedures and controls to maintain the digital security of an organisation and its data K1.23 The purpose and application of legislation, industry standards and regulatory compliance and
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	consideration the following: • data type/type of data to be entered • risk of errors • legal issues • maintenance and integrity of data • resource considerations. Skills development activity: Research and apply risk mitigation techniques to the identified threats, vulnerabilities or incidents detected in end user devices – for example, installing remote monitoring and management (RMM) software, device hardening.			industry best practice guidelines for the security of information systems within digital infrastructure <u>Skills development in Occupational specialism: Digital infrastructure pathway</u> • S1.6 Demonstrate continuous improvement through the application of risk mitigation in maintaining the digital security of an organisation and its data in a digital infrastructure context
25 minutes	Tutor-led Tutor to lead an introduction and discussion on	Information on PowerPoint Session 2.pptx, slides 11–17	Tutor questioning to check for understanding during delivery	<u>Core knowledge and skills</u> R3.4 The concepts involved in data entry and maintenance

	legislation, standards and compliance: • EU General Data Protection Regulation (GDPR) • Computer Misuse Act 1990 • ISO 27001:2017 • Payment Card Industry Data Security Standard (PCI DSS) • National Cyber Security Centre (NCSC) '10 Steps to Cyber Security' • Open Web Application Security Project (OWASP). Learner activity 3 Working in groups, each group is assigned one of the topics above to create a leaflet about for a digital business. The leaflet should provide guidance on	Flipcharts and marker pen for group discussion Computers with internet access for research	Self-assessment of responses to questions Learners work in groups to share their responses	• Data entry: • reducing risk of data entry errors (validation and verification) • privacy (compliance with standards and legislation for usage and storage). <u>Occupational specialism: Digital infrastructure pathway</u> PO1: Apply procedures and controls to maintain the digital security of an organisation and its data • K1.23 The purpose and application of legislation, industry standards and regulatory compliance and industry best practice guidelines for the security of information systems
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	what the legislation is and how to be compliant.			within digital infrastructure
5–10 minutes	Summary and knowledge check.	Application of key knowledge to applied situations	Self- and teacher assessment	

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