ICTICT426 - Identify and evaluate emerging technologies and practices

IT LANDSCAPE ASSESSMENT REPORT	
Student Name	
Workplace/Organisation	
Date Prepared	

SECTION I. EMERGING INNOVATIONS

A. SOURCES OF INFORMATION ON EMERGING TECHNOLOGIES AND PRACTICES	
SOURCE 1	
a. Relevance	
i. Source Name *This must be a well-known and respected reference.* **Assessor Instructions:** This must be a well-known and respected reference from which information on emerging technologies and practices in the IT industry can be found. For example, ITnews, CIO Australia and the Australian Computer Society.	ITnews
ii. Type of Source *This must be the specific format through which information from the identified source is shared.* **Assessor Instructions:** This must be the specific format through which information from the identified source is shared. For example, industry publication, government report or academic research.	Online industry publication article
iii. Intended Audience *This must be the specific group or demographic that the identified*	IT professionals, business leaders, and technology enthusiasts

source aims to reach and communicate with. **Assessor Instructions:** This must include the specific group or demographic that the identified source aims to reach and communicate with. For example, IT professionals.	
iv. **Intended Purpose** *This must be the reason why a particular source was created or published.* *[Approximate word count: 15 – 30 words]* **Assessor Instructions:** This must be the reason why a particular source was created or published; this helps users evaluate its relevance and credibility for their research. For example, the intended purpose is to provide strategic insights to support decision-making in the dynamic field of emerging technologies.	To inform readers about the potential applications and impact of quantum computing in various business sectors.

SOURCE 1	
b. Reliability	
i. Name of Author *This can be the individual author or the collective body from where the identified source was taken.* **Assessor Instructions:** This must be the individual author of the identified source or the collective body from where the identified source was taken, such as an organisation, institution, or publication.	Emily Chang
ii. Author's Background *This must include essential information about the identified author that will help prove their credibility.* *[Approximate word count: 20 – 50 words]* **Assessor Instructions:** This must include essential information about the identified author that will help prove their credibility. For example, if the student identified an individual author, their response could include educational background, work experience, professional experience or affiliations. If the student identified a collective body, such as an organisation or a publication, their response could include areas of expertise, previous works and contributions in the IT industry or any awards and recognition.	Emily Chang is a senior technology reporter at ITnews with over 10 years of experience covering IT innovations and technology policy. She holds a Master's degree in Computer Science from the University of Sydney.
iii. Date of Publication *This must be within the past 2-3 years from the assessment date.*	March 15, 2024

Assessor Instructions: This must be when the identified source was officially released or made available. Publication date identified must be within the past 2-3 years from the assessment date to ensure relevance.	

SOURCE 2	
a. Relevance	
i. Source Name *This must be a well-known and respected reference.* **Assessor Instructions:** This must be a well-known and respected reference from which information on emerging technologies and practices in the IT industry can be found. For example, ITnews, CIO Australia and the Australian Computer Society.	Australian Computer Society (ACS)
ii. Type of Source *This must be the specific format through which information from the identified source is shared.* **Assessor Instructions:** This must be the specific format through which information from the identified source is shared. For example, industry publication, government report or academic research.	Professional association research report
iii. Intended Audience *This must be the specific group or demographic that the identified source aims to reach and communicate with.* **Assessor Instructions:** This must include the specific group or demographic that the identified source aims to reach and communicate with. For example, IT professionals.	IT professionals, ethicists, and policymakers in technology
iv. Intended Purpose	

This must be the reason why a particular source was created or published. *[Approximate word count: 15 – 30 words]* **Assessor Instructions:** This must be the reason why a particular source was created or published; this helps users evaluate its relevance and credibility for their research. For example, the intended purpose is to provide strategic insights to support decision-making in the dynamic field of emerging technologies.	To provide insights and guidelines on ethical considerations in the development and application of artificial intelligence technologies.

SOURCE 2	
b. **Reliability**	
iv. **Name of Author**	
This can be the individual author or the collective body from where the identified source was taken.	Dr. Lisa Wu
Assessor Instructions: This must be the individual author of the identified source or the collective body from where the identified source was taken, such as an organisation, institution, or publication.	
v. **Author's Background**	
This must include essential information about the identified author that will help prove their credibility.	Dr. Lisa Wu is a research director at the ACS, specialising in technology ethics. She has a PhD in Computer Ethics from Monash University and has published extensively on topics related to AI and ethics.
[Approximate word count: 20 – 50 words]	
Assessor Instructions: This must include essential information about the identified author that will help prove their credibility. For example, if the student identified an individual author, their response could include educational background, work experience, professional experience or affiliations. If the student identified a collective body, such as an organisation or a publication, their response could include areas of expertise, previous works and contributions in the IT industry or any awards and recognition.	
vi. **Date of Publication**	
This must be within the past 2-3 years from the assessment date.	February 22, 2024
Assessor Instructions: This must be when the identified source	

was officially released or made available. Publication date identified must be within the past 2-3 years from the assessment date to ensure relevance.	

B. EMERGING TECHNOLOGIES	
EMERGING TECHNOLOGY 1 *This must be the name of the specific innovation, advancement or development within the IT industry that is still in the early stages of development, adoption or application.* **Assessor Instructions:** This must be the name of the specific innovation, advancement or development within the IT industry that is still in the early stages of development, adoption or application. For example, generative artificial intelligence.	Quantum Computing
About the Emerging Technology	
a. **Relevant Current Technology** **Assessor Instructions:** This must be an existing innovation in the IT industry that is impacted by the identified emerging technology. For example, if the student identified generative artificial intelligence, their response can be Natural Language Processing (NLP) Tools.	Classical Computing Systems
b. **Relevant Trend** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be a broader pattern or movement within the IT industry that directly impacts or is influenced by the identified emerging technology. This can be currently prevalent in the IT industry or still in the early stages of recognition. For example, if the student identified generative artificial intelligence, their response can be Ethical AI practices.	Increased investment in quantum technology by major tech companies

c.	**Applicable Legal Responsibilities** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must be laws relevant to the identified emerging technology that must be adhered to when using and adopting it. For example, the use of generative AI must adhere to privacy laws such as the Privacy Act 1988 (Cth).	- Compliance with the **Australian Privacy Principles** under the Privacy Act 1988, particularly concerning data encryption and the secure processing of sensitive information. - Adherence to the **Telecommunications and Other Legislation Amendment (Assistance and Access) Act 2018**, which may affect how encryption technologies are deployed. *Add more items as necessary.*
d.	**Applicable Regulatory Responsibilities** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must be standards established by regulatory bodies within the ICT industry that must be followed when using and adapting the identified technology. For example, the use of generative AI must adhere to standards relevant to cyber security and AI, such as the Australian AI Ethics Framework.	Following standards related to quantum cryptography, such as those developed by the **Australian Signals Directorate (ASD)** for secure government communications.*Add more items as necessary.*
e.	**Purpose** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be the main reason or objective for which the identified emerging technology is developed. For example, if the student identified generative artificial intelligence, their response can be content creation or automation of tasks.	To solve complex problems that are currently infeasible for traditional computers
f.	**Primary Function** *[Approximate word count: up to 20 words]*	Leveraging quantum mechanics to perform computations at unprecedented speeds

	Assessor Instructions: This must be the central task that the identified emerging technology is designed to perform in the context of the organisation. For example, the primary function of generative AI may be to analyse patterns in data and generate accurate text based on learned patterns.	
g.	**Features (at least 2)** **Assessor Instructions:** This must include distinct characteristics of the identified emerging technology that contribute to its overall capabilities. Examples for generative AI can include the ability to understand the right context and adapt to different data patterns.	i. Quantum superposition, allowing it to process exponentially more data compared to classical computers ii. Quantum entanglement, which enables high-speed parallel processing
h.	**Attributes (at least 2)** **Assessor Instructions:** This must include inherent qualities or properties that describe the nature of the identified emerging technology. Examples for generative AI can include data processing speed and content generation accuracy.	i. Extremely high processing power ii. Potential to disrupt industries through superior optimisation capabilities
i.	**Potential Application to the Organisation** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must include a specific area where the identified emerging technology could be used within the organisation. For example, if the student identified Generative Artificial Intelligence, their response can include optimising certain workflows within the organisation's IT processes and improving overall operational efficiency.	Optimising logistics and supply chain management, drastically reducing computation time for complex optimisation problems.

EMERGING TECHNOLOGY 2 **Assessor Instructions:** This must be the name of the specific innovation, advancement or development within the IT industry that is still in the early stages of development, adoption or application. For example, generative artificial intelligence.	Artificial Intelligence Ethics Tools
About the Emerging Technology	
a. **Relevant Current Technology** **Assessor Instructions:** This must be an existing innovation in the IT industry that is impacted by the identified emerging technology. For example, if the student identified generative artificial intelligence, their response can be Natural Language Processing (NLP) Tools.	Standard AI development platforms
b. **Relevant Trend** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be a broader pattern or movement within the IT industry that directly impacts or is influenced by the identified emerging technology. This can be currently prevalent in the IT industry or still in the early stages of recognition. For example, if the student identified generative artificial intelligence, their response can be Ethical AI practices.	Growing emphasis on ethical AI development
c. **Applicable Legal Responsibilities** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must be laws relevant to the identified emerging technology that must	• Ensuring AI systems comply with the **Privacy Act 1988** (Cth), especially in handling personal information and decision-making processes that may affect privacy rights.

be adhered to when using and adopting it. For example, the use of generative AI must adhere to privacy laws such as the Privacy Act 1988 (Cth).	• Observance of the **Disability Discrimination Act 1992**, ensuring AI tools do not inadvertently discriminate against users with disabilities. *Add more items as necessary.*
d. **Applicable Regulatory Responsibilities** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must be standards established by regulatory bodies within the ICT industry that must be followed when using and adapting the identified technology. For example, the use of generative AI must adhere to standards relevant to cyber security and AI, such as the Australian AI Ethics Framework.	Adherence to the **Australian AI Ethics Framework** developed by Data61 CSIRO, guiding the ethical development, deployment, and use of AI systems in Australia. *Add more items as necessary.*
e. **Purpose** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be the main reason or objective for which the identified emerging technology is developed. For example, if the student identified generative artificial intelligence, their response can be content creation or automation of tasks.	To provide frameworks and tools to assist developers in creating ethically aligned AI solutions
f. **Primary Function** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be the central task that the identified emerging technology is designed to perform in the context of the organisation. For example, the primary function of generative AI may be to analyse patterns in data and	Assessment and guidance on ethical implications of AI systems during the development phase

	generate accurate text based on learned patterns.	
g.	**Features (at least 2)** **Assessor Instructions:** This must include distinct characteristics of the identified emerging technology that contribute to its overall capabilities. Examples for generative AI can include the ability to understand the right context and adapt to different data patterns.	i. Integration with existing AI development environments to evaluate ethical considerations in real-time
		ii. Reporting and recommendation system for ethical compliance
h.	**Attributes (at least 2)** **Assessor Instructions:** This must include inherent qualities or properties that describe the nature of the identified emerging technology. Examples for generative AI can include data processing speed and content generation accuracy.	i. Enhances transparency and accountability in AI development
		ii. Supports compliance with ethical standards and legal requirements
i.	**Potential Application to the Organisation** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must include a specific area where the identified emerging technology could be used within the organisation. For example, if the student identified Generative Artificial Intelligence, their response can include optimising certain workflows within the organisation's IT processes and improving overall operational efficiency.	Integrating into the AI development lifecycle to ensure all AI projects adhere to ethical standards, improving trust and compliance

EMERGING TECHNOLOGY 3	
Assessor Instructions: This must be the name of the specific innovation, advancement or development within the IT industry that is still in the early stages of development, adoption or application. For example, generative artificial intelligence.	Edge Computing
About the Emerging Technology	
a. **Relevant Current Technology** **Assessor Instructions:** This must be an existing innovation in the IT industry that is impacted by the identified emerging technology. For example, if the student identified generative artificial intelligence, their response can be Natural Language Processing (NLP) Tools.	Cloud Computing
b. **Relevant Trend** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be a broader pattern or movement within the IT industry that directly impacts or is influenced by the identified emerging technology. This can be currently prevalent in the IT industry or still in the early stages of recognition. For example, if the student identified generative artificial intelligence, their response can be Ethical AI practices.	Increasing deployment of IoT devices and the need for real-time computing
c. **Applicable Legal Responsibilities** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must be laws relevant to the identified emerging technology that must be adhered to when using and adopting it.	• Compliance with **data sovereignty laws**, ensuring that data generated in Australia is stored and processed according to Australian legal requirements, particularly relevant for edge devices deployed across different regions.

For example, the use of generative AI must adhere to privacy laws such as the Privacy Act 1988 (Cth).	• Adherence to the **Health Records Act 2001** (Victoria) and similar legislation in other states, crucial for edge computing solutions handling health-related data. *Add more items as necessary.*
d. **Applicable Regulatory Responsibilities** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must be standards established by regulatory bodies within the ICT industry that must be followed when using and adapting the identified technology. For example, the use of generative AI must adhere to standards relevant to cyber security and AI, such as the Australian AI Ethics Framework.	Following the **Information Security Manual (ISM)**, issued by the ASD, providing principles and guidelines for protecting data integrity, confidentiality, and availability in edge computing setups. *Add more items as necessary.*
e. **Purpose** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be the main reason or objective for which the identified emerging technology is developed. For example, if the student identified generative artificial intelligence, their response can be content creation or automation of tasks.	To bring data processing closer to the location where it is needed to improve response times and save bandwidth.
f. **Primary Function** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be the central task that the identified emerging technology is designed to perform in the context of the organisation. For example, the primary function of generative AI may be to analyse patterns in data and generate accurate text based on learned patterns.	Processing data near the edge of the network where the data is generated, rather than relying solely on a centralized data center.

g. **Features (at least 2)** **Assessor Instructions:** This must include distinct characteristics of the identified emerging technology that contribute to its overall capabilities. Examples for generative AI can include the ability to understand the right context and adapt to different data patterns.	i.	Local data processing, reducing latency significantly compared to centralized cloud services.
	ii.	Enhanced data security, as sensitive information does not traverse the entire network.
h. **Attributes (at least 2)** **Assessor Instructions:** This must include inherent qualities or properties that describe the nature of the identified emerging technology. Examples for generative AI can include data processing speed and content generation accuracy.	i.	High-speed data processing capabilities.
	ii.	Ability to operate reliably in remote and distributed environments.
i. **Potential Application to the Organisation** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must include a specific area where the identified emerging technology could be used within the organisation. For example, if the student identified Generative Artificial Intelligence, their response can include optimising certain workflows within the organisation's IT processes and improving overall operational efficiency.	It can be used to enhance the performance and efficiency of fitness devices and mobile applications by processing data locally on devices or nearby servers, thereby improving user experience and responsiveness.	

C. EMERGING PRACTICES

EMERGING PRACTICE 1 *This must be the specific term that represents a novel or evolving methodology or process within the IT industry.* **Assessor Instructions:** This must be the specific term that represents a novel or evolving methodology or process within the IT industry. For example, development, security and operations (DevSecOps).	DevSecOps

About the Emerging Practice	
a. **Relevant Current Practice** **Assessor Instructions:** This must be an existing process in the IT industry that is impacted by the identified emerging practice. For example, if the student identified DevSecOps, their response can be Cross-Functional Collaboration.	Agile and DevOps methodologies
b. **Relevant Trend** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be a broader pattern or movement within the IT industry that directly impacts or is influenced by the identified emerging practice. This can be currently prevalent or ongoing in the IT industry or still in the early stages of recognition. For example, if the student identified DevSecOps, their response can be Shift-Left Security.	Integration of security practices into all phases of software development
c. **Applicable Legal Responsibilities** *[Approximate word count: up to 50 words]*	• Ensuring compliance with the **Privacy Act 1988** as it relates to the security of personal information

	Assessor Instructions: This must outline all applicable legal responsibilities	processed during software development and operations. • Adherence to the **Copyright Act 1968** for software and digital content created as part of DevSecOps processes. *Add more items as necessary.*
d.	**Applicable Regulatory Responsibilities** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must outline all applicable regulatory responsibilities	Following the **ISO/IEC 27001** standards, which provide requirements for an information security management system (ISMS), applicable to the integration of security into development and operational processes. *Add more items as necessary.*
e.	**Purpose** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be the main reason or objective for which the identified emerging practice is used.	To incorporate security decisions and actions at the same pace as development and operations decisions and actions
f.	**Primary Function** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be the primary function for which the identified emerging practice is used.	Continuous integration and deployment of security measures alongside application updates
g.	**Features (at least 2)** **Assessor Instructions:** This must include the features of the identified practice. For example, if the student identified DevSecOps, their response can be its ability to automate security testing throughout the software development lifecycle.	i. Automated security testing tools integrated into CI/CD pipelines ii. Real-time security monitoring and threat detection
h.	**Attributes (at least 2)** **Assessor Instructions:** This must include two attributed of the identified practice. For example, if the student identified DevSecOps, their response can be cross-functional	i. Promotes a culture of security awareness and responsibility across all teams ii.

collaboration between development, security, and operations teams.	Enables faster response to security vulnerabilities and incidents
i. **Potential Application to the Organisation** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must include one potential application of the identified practice to the organisation.	Enhancing the security posture by embedding security practices into the continuous delivery pipeline, ensuring secure software deployment

EMERGING PRACTICE 2	
Assessor Instructions: This must be the specific term that represents a novel or evolving methodology or process within the IT industry. For example, development, security and operations (DevSecOps).	Ethical AI Framework Implementation

About the Emerging Practice	
a. Relevant Current Practice **Assessor Instructions:** This must be an existing process in the IT industry that is impacted by the identified emerging practice. For example, if the student identified DevSecOps, their response can be Cross-Functional Collaboration.	Standard AI development practices
b. Relevant Trend *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be a broader pattern or movement within the IT industry that directly impacts or is influenced by the identified emerging practice. This can be currently prevalent or ongoing in the IT industry or still in the early stages of recognition. For example, if the student identified DevSecOps, their response can be Shift-Left Security.	Adoption of ethical guidelines for AI
c. Applicable Legal Responsibilities *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must outline all applicable legal responsibilities	• Observance of the **Anti-Discrimination Act 1977** (NSW) and equivalent legislation across other states, particularly relevant when deploying AI systems that make autonomous decisions affecting individuals. • Compliance with the **Australian Consumer Law** to ensure AI systems do not engage in misleading or deceptive conduct. *Add more items as necessary.*

d.	**Applicable Regulatory Responsibilities** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must outline all applicable regulatory responsibilities	Implementation of guidelines from the **Australian AI Ethics Framework**, ensuring ethical considerations are integrated into AI development and deployment. *Add more items as necessary.*
e.	**Purpose** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be the main reason or objective for which the identified emerging practice is used.	To ensure AI systems are developed with a focus on ethics from the ground up
f.	**Primary Function** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be the primary function for which the identified emerging practice is used.	Guiding AI projects to address ethical concerns such as fairness, transparency, and accountability
g.	**Features (at least 2)** **Assessor Instructions:** This must include the features of the identified practice. For example, if the student identified DevSecOps, their response can be its ability to automate security testing throughout the software development lifecycle.	i. Ethical assessment checkpoints throughout the AI development process ii. Tools for transparency and explainability in AI operations
h.	**Attributes (at least 2)** **Assessor Instructions:** This must include two attributed of the identified practice. For example, if the student identified DevSecOps, their response can be cross-functional collaboration between development, security, and operations teams.	i. Builds trust with users and regulators ii. Ensures compliance with ethical and legal standards
i.	**Potential Application to the Organisation** *[Approximate word count: up to 50 words]*	

| **Assessor Instructions:** This must include one potential application of the identified practice to the organisation. | Implementing ethical frameworks in all AI initiatives to maintain high ethical standards and comply with regulatory requirements |

EMERGING PRACTICE 3	
Assessor Instructions: This must be the specific term that represents a novel or evolving methodology or process within the IT industry.

For example, development, security and operations (DevSecOps). | Continuous Learning Platforms for IT Skills Development |

About the Emerging Practice	
a. **Relevant Current Practice**
Assessor Instructions: This must be an existing process in the IT industry that is impacted by the identified emerging practice.
For example, if the student identified DevSecOps, their response can be Cross-Functional Collaboration.	Traditional e-learning systems that offer static and periodic training modules.
b. **Relevant Trend**
[Approximate word count: up to 20 words]
Assessor Instructions: This must be a broader pattern or movement within the IT industry that directly impacts or is influenced by the identified emerging practice.
This can be currently prevalent or ongoing in the IT industry or still in the early stages of recognition.
For example, if the student identified DevSecOps, their response can be Shift-Left Security.	Adoption of dynamic, continuous learning platforms that integrate with the workplace environment, offering real-time skills development and adaptive learning paths based on emerging technologies and business needs.
c. **Applicable Legal Responsibilities**
[Approximate word count: up to 50 words]
Assessor Instructions: This must outline all applicable legal responsibilities | • **Compliance with the Australian Privacy Act 1988**: Ensuring that personal data collected through learning platforms is handled securely, with appropriate consent, and only used for intended educational purposes.

• **Compliance with the Education Services for Overseas Students Act 2000 (ESOS)**: For platforms used by international students in Australia, ensuring |

		that the platform and its content comply with the national standards for education and training. *Add more items as necessary.*
d.	**Applicable Regulatory Responsibilities** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must outline all applicable regulatory responsibilities	• **Adherence to the Standards for Registered Training Organisations (RTOs) 2015**: If the platform offers accredited courses, it must maintain compliance with these standards, which ensure quality training and assessment. • **Following the Australian Qualifications Framework (AQF)**: Ensuring that any certifications or qualifications offered through the platform are recognized and aligned with the AQF standards. *Add more items as necessary.*
e.	**Purpose** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be the main reason or objective for which the identified emerging practice is used.	To provide IT professionals with ongoing access to up-to-date training materials and interactive resources that help them keep pace with rapid technological advancements.
f.	**Primary Function** *[Approximate word count: up to 20 words]* **Assessor Instructions:** This must be the primary function for which the identified emerging practice is used.	These platforms function as a hub for continuous professional development, featuring adaptive learning technologies that tailor educational content to the learner's pace and skill level.
g.	**Features (at least 2)** **Assessor Instructions:** This must include the features of the identified practice. For example, if the student identified DevSecOps, their response can be its ability to automate security testing throughout the software development lifecycle.	i. Tailors training programs to individual learning speeds and knowledge gaps. ii. Evaluates learner progress and adapt the curriculum accordingly.
h.	**Attributes (at least 2)**	i.

Assessor Instructions: This must include two attributed of the identified practice. For example, if the student identified DevSecOps, their response can be cross-functional collaboration between development, security, and operations teams.	Can easily accommodate an increasing number of users and evolve as new learning needs arise.
	ii. Available anytime and anywhere, supporting a flexible learning environment.
i. **Potential Application to the Organisation** *[Approximate word count: up to 50 words]* **Assessor Instructions:** This must include one potential application of the identified practice to the organisation.	Can be integrated into the workplace to enhance employee skills in new technologies like cloud computing, cybersecurity, and data analytics, thereby increasing overall productivity and innovation capacity.

SECTION II. EMERGING TECHNOLOGIES AND PRACTICES EVALUATION

A. EMERGING TECHNOLOGIES

EMERGING TECHNOLOGY 1 *This must be the same emerging technology as the one identified in the previous task.*	

	STRENGTHS Identify at least two (2)	**WEAKNESSES** Identify at least two (2)
INTERNAL *(within organisation)*	**Assessor Instructions:** This must be internal characteristics that give the identified emerging technology an advantage over others. For example, if the identified emerging technology is generative artificial intelligence, the student's response can be its capability to generate content from a dataset.	**Assessor Instructions:** These must be internal characteristics that give the identified emerging technology a disadvantage compared with others. An example for generative artificial intelligence is the challenges associated with ensuring ethical use and mitigating biases in generative AI algorithms.
	OPPORTUNITIES Identify at least two (2)	**THREATS** Identify at least two (2)
EXTERNAL *(outside organisation)*	**Assessor Instructions:** These must be external factors that the identified emerging technology can leverage to their advantage. An example for generative artificial intelligence is the growing demand for generative AI applications in creative fields, content creation and problem-solving.	**Assessor Instructions:** These must be external factors that may pose risks or obstacles to the successful adoption or performance of the identified technology. An example for generative artificial intelligence is the potential regulatory scrutiny and ethical concerns regarding the responsible use of generative AI.

Potential Positive Impact on Existing Organisational Technologies Identify at least one (1)	**Assessor Instructions:** An example for generative artificial intelligence is its potential cost savings.

Potential Negative Impact on Existing Organisational Technologies Identify at least one (1)	**Assessor Instructions:** An example for generative artificial intelligence is compatibility issues that can lead to disruptions in the seamless operation of existing technologies.

	EMERGING TECHNOLOGY 2	
EMERGING TECHNOLOGY 2 *This must be the same emerging technology as the one identified in the previous task.*		

		STRENGTHS Identify at least two (2)	WEAKNESSES Identify at least two (2)
INTERNAL *(within organisation)*		**Assessor Instructions:** This must be internal characteristics that give the identified emerging technology an advantage over others. For example, if the identified emerging technology is generative artificial intelligence, the student's response can be its capability to generate content from a dataset.	**Assessor Instructions:** These must be internal characteristics that give the identified emerging technology a disadvantage compared with others. An example for generative artificial intelligence is the challenges associated with ensuring ethical use and mitigating biases in generative AI algorithms.
		OPPORTUNITIES Identify at least two (2)	**THREATS** Identify at least two (2)
EXTERNAL *(outside organisation)*		**Assessor Instructions:** These must be external factors that the identified emerging technology can leverage to their advantage. An example for generative artificial intelligence is the growing demand for generative AI applications in creative fields, content creation and problem-solving.	**Assessor Instructions:** These must be external factors that may pose risks or obstacles to the successful adoption or performance of the identified technology. An example for generative artificial intelligence is the potential regulatory scrutiny and ethical concerns regarding the responsible use of generative AI.

Potential Positive Impact on Existing Organisational Technologies Identify at least one (1)	**Assessor Instructions:** An example for generative artificial intelligence is its potential cost savings.
Potential Negative Impact on Existing Organisational Technologies Identify at least one (1)	**Assessor Instructions:** An example for generative artificial intelligence is compatibility issues that can lead to disruptions in the seamless operation of existing technologies.

EMERGING TECHNOLOGY 3	
This must be the same emerging technology as the one identified in the previous task.	

	STRENGTHS Identify at least two (2)	WEAKNESSES Identify at least two (2)
INTERNAL *(within organisation)*	**Assessor Instructions:** This must be internal characteristics that give the identified emerging technology an advantage over others. For example, if the identified emerging technology is generative artificial intelligence, the student's response can be its capability to generate content from a dataset.	**Assessor Instructions:** These must be internal characteristics that give the identified emerging technology a disadvantage compared with others. An example for generative artificial intelligence is the challenges associated with ensuring ethical use and mitigating biases in generative AI algorithms.
	OPPORTUNITIES Identify at least two (2)	**THREATS** Identify at least two (2)
EXTERNAL *(outside organisation)*	**Assessor Instructions:** These must be external factors that the identified emerging technology can leverage to their advantage. An example for generative artificial intelligence is the growing demand for generative AI applications in creative fields, content creation and problem-solving.	**Assessor Instructions:** These must be external factors that may pose risks or obstacles to the successful adoption or performance of the identified technology. An example for generative artificial intelligence is the potential regulatory scrutiny and ethical concerns regarding the responsible use of generative AI.

Potential Positive Impact on Existing Organisational Technologies Identify at least one (1)	**Assessor Instructions:** An example for generative artificial intelligence is its potential cost savings.
Potential Negative Impact on Existing Organisational Technologies Identify at least one (1)	**Assessor Instructions:** An example for generative artificial intelligence is compatibility issues that can lead to disruptions in the seamless operation of existing technologies.

B. EMERGING PRACTICES	
EMERGING PRACTICE 1 *This must be the same emerging practice as the one identified in the previous task.*	

		STRENGTHS Identify at least two (2)	**WEAKNESSES** Identify at least two (2)
INTERNAL *(within organisation)*		**Assessor Instructions:** For example, if the identified emerging practice is DevSecOps, the student's response can be its enhancement of the overall system security within the organisation.	**Assessor Instructions:** An example for DevSecOps is the upfront costs associated with implementing its practices, including tooling and training.
		OPPORTUNITIES Identify at least two (2)	**THREATS** Identify at least two (2)
EXTERNAL *(outside organisation)*		**Assessor Instructions:** An example for DevSecOps is its growing market opportunity due to the prioritisation of security in the development process.	**Assessor Instructions:** An example for DevSecOps is the resistance from the traditional development or operational teams.

Potential Positive Impact on Existing Organisational Practices Identify at least one (1)	**Assessor Instructions:** An example for DevSecOps is its reduced time to remediate security issues.
Potential Negative Impact on Existing Organisational Practices Identify at least one (1)	**Assessor Instructions:** An example for generative artificial intelligence is the additional complexities and overhead in the development and deployment processes.

EMERGING PRACTICE 2	
This must be the same emerging practice as the one identified in the previous task.	

	STRENGTHS Identify at least two (2)	WEAKNESSES Identify at least two (2)
INTERNAL *(within organisation)*	**Assessor Instructions:** For example, if the identified emerging practice is DevSecOps, the student's response can be its enhancement of the overall system security within the organisation.	**Assessor Instructions:** An example for DevSecOps is the upfront costs associated with implementing its practices, including tooling and training.
	OPPORTUNITIES Identify at least two (2)	THREATS Identify at least two (2)
EXTERNAL *(outside organisation)*	**Assessor Instructions:** An example for DevSecOps is its growing market opportunity due to the prioritisation of security in the development process.	**Assessor Instructions:** An example for DevSecOps is the resistance from the traditional development or operational teams.

Potential Positive Impact on Existing Organisational Practices Identify at least one (1)	**Assessor Instructions:** An example for DevSecOps is its reduced time to remediate security issues.
Potential Negative Impact on Existing Organisational Practices Identify at least one (1)	**Assessor Instructions:** An example for generative artificial intelligence is the additional complexities and overhead in the development and deployment processes.

EMERGING PRACTICE 3	
This must be the same emerging practice as the one identified in the previous task.	

	STRENGTHS Identify at least two (2)	WEAKNESSES Identify at least two (2)
INTERNAL *(within organisation)*	**Assessor Instructions:** For example, if the identified emerging practice is DevSecOps, the student's response can be its enhancement of the overall system security within the organisation.	**Assessor Instructions:** An example for DevSecOps is the upfront costs associated with implementing its practices, including tooling and training.
	OPPORTUNITIES Identify at least two (2)	THREATS Identify at least two (2)
EXTERNAL *(outside organisation)*	**Assessor Instructions:** An example for DevSecOps is its growing market opportunity due to the prioritisation of security in the development process.	**Assessor Instructions:** An example for DevSecOps is the resistance from the traditional development or operational teams.

Potential Positive Impact on Existing Organisational Practices Identify at least one (1)	**Assessor Instructions:** An example for DevSecOps is its reduced time to remediate security issues.
Potential Negative Impact on Existing Organisational Practices Identify at least one (1)	**Assessor Instructions:** An example for generative artificial intelligence is the additional complexities and overhead in the development and deployment processes.

Version Control and Modification History

Date	Summary of Modifications	Version No.
	Version 1 produced following the evaluation of emerging technologies and practices.	1.0
	Version 2.0 produced with the following modifications: *This must contain the outline of changes you made to the report, including specific parts revised and the actions taken to revise them.* ▪ **Assessor Instructions:** This must correspond with the feedback gathered from the organisational representative outlined in the meeting minutes submitted in this task. It must include: - Specific parts within the report where changes were applied based on the gathered feedback. - Actions taken to revise the specific parts identified. These must be the specific actions to incorporate the feedback provided by the organisational representative into the report.	2.0

END OF IT LANDSCAPE ASSESSMENT REPORT