



# JOHN EDMONDSON HIGH SCHOOL

## Assessment Notification

Faculty: Industrial Arts Course: Enterprise Computing Year: 11

Assessment Task: Task 2 – Networking Systems and Social Computing

Assessment Weighting: 35% Due: Term 2 Week 9 Date: 27/06/24 (In SOLE room at 8.10 am)

Task Type: Hand in Task  In Class Task  Practical Task

### Outcomes assessed (NESA)

- describes how systems are used in a range of enterprises EC-11-01
- describes how data is safely and securely collected, stored and manipulated when developing enterprise computing systems EC-11-03
- describes how data is used in enterprise computing systems EC-11-04
- explains how innovative technologies have influenced enterprise computing systems EC-11-06
- explores the social, ethical and legal implications of the application of enterprise computing systems on the individual, society and the environment EC-11-07
- documents the management and evaluates the development of an enterprise solution EC-11-09

### Task Description/Overview

#### Type of task:

Inspired by the Internet of Things (IoT) students design and model a network of interconnected devices for a specific purpose and create a video to showcase their project.

Create a video of a network being physically connected by you. This video may include footage of components being configured and networked and include visuals such as **diagrams** and a **network simulator** to showcase their interconnected devices. If you are unable to physically connect the devices then you can do the screen recording (Windows+Alt+R) or (Windows+G) of the simulator program that you are using to create the virtual network.

Students may access networking equipment at school, or examine their own home network or that of an investigated enterprise system including a local business or researched organisation.

Students in a group of 3-4 design and develop a Networking solution to address the specific requirements of an organisation or their researched network setup. Delegation of each part to the appropriate team members, along with strict time management, will be vital!

**Submission details**

There are two sections for submission of this task:

- A. Video or screen capture of the connecting the network (**computers, nodes (printer/scanner), hub, switches, routers etc**). Do not forget to mention what type of **network topology** is being used.
- B. Digital Documents (submitted on USB) related to proposed interactive media and UX system that has been used to communicate information to an audience. (Please refer to Table 1)
  - Identifying and defining
  - Researching and planning
  - Producing and implementing (Video or Screen Recording of your Networked project)
  - Testing and evaluating

Table 1

Steps	What I need to do
<p><b>Identifying and defining</b></p> <p>Investigate how you will design and model a network to communicate information for a specific purpose.</p>	<ul style="list-style-type: none"> <li>• Design and model a network of interconnected devices for a specific purpose.</li> <li>• Choose an environment or location to represent and model a network.</li> <li>• Define the specific purpose of the network.</li> <li>• Examine what IoTs are used in the network.</li> </ul>
<p><b>Research and planning</b></p> <p>Document using project management tools.</p> <p>Plan the video you will create to showcase your network.</p>	<ul style="list-style-type: none"> <li>• Apply appropriate project management tools to develop a project by creating a storyboard and script to plan the video.</li> <li>• Use voice narration, titles, relevant graphics, diagrams or videos to describe how systems are used in enterprises and how data is safely and</li> </ul>

Steps	What I need to do
	<p>securely collected, stored and manipulated when developing enterprise computing systems.</p> <ul style="list-style-type: none"> <li>• Use voice narration, titles, relevant graphics, diagrams or videos to explain how innovative technologies have influenced systems and explores the social, ethical and legal implications of the application of enterprise computing systems on the individual, society and the environment.</li> </ul>
<p><b>Producing and implementing</b></p> <p>Develop your network of interconnected devices with naming conventions and update devices that are configured with safety protocols, and ensure they can connect to the internet.</p>	<ul style="list-style-type: none"> <li>• Video record how you configure devices within a network</li> </ul> <p>Including</p> <ul style="list-style-type: none"> <li>– naming the device</li> <li>– updating the device</li> <li>– configuring security protocols</li> <li>– connecting to the internet.</li> </ul>
<p><b>Producing and implementing</b></p> <p>Develop your network of interconnected devices considering security protocols and cybersecurity.</p> <p>Develop your network of interconnected devices optimising network performance.</p>	<ul style="list-style-type: none"> <li>• Implement procedures and security protocols considering cybersecurity.</li> <li>• Explore opportunities for optimising network performance</li> </ul> <p>Including</p> <ul style="list-style-type: none"> <li>– improving bandwidth</li> <li>– updating drivers and firmware.</li> </ul>
<p><b>Testing and evaluating</b></p> <p>Review and improve your network of interconnected devices.</p>	<ul style="list-style-type: none"> <li>• Evaluate the role of hardware and software related to the transmission of data</li> </ul> <p>Including</p>

Steps	What I need to do
	<ul style="list-style-type: none"> <li>– unsecured data</li> <li>– encrypted data</li> <li>– infrastructure.</li> </ul>

**Remember:**

**Delegation of each part to the appropriate team members, along with strict time management, will be vital!**

**Satisfactory completion of courses**

**A course has been satisfactorily completed, when the student has:**

- **Followed the course developed/endorsed by the NSW Educational Standards Authority (NESA)**
- **Applied himself/herself with diligence and sustained effort to the set tasks and experiences provided in the course.**
- **Achieved some or all of the course outcomes**

**RESOURCES:**

Cisco Networking Academy (2023) [Getting started with Cisco Packet Tracer](#), Cisco, accessed 15 September 2023.

Firefox Browser Add-ons (n.d.) [Firefox lightbeam \[website\]](#), accessed 15 September 2023.

# Marking guidelines

**Mark  
Range**

**Table 2– assessment marking guidelines**

<b>Grade</b>	<b>Marking guideline descriptors</b>	
<b>A</b>	<p>The student demonstrates extensive knowledge of content and understanding of course concepts and applies highly developed skills and processes in a wide variety of contexts.</p> <p>In addition, the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.</p>	<b>50-60</b>
<b>B</b>	<p>The student demonstrates thorough knowledge of content and understanding of course concepts and applies well-developed skills and processes in a variety of contexts.</p> <p>In addition, the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.</p>	<b>40-49</b>
<b>C</b>	<p>The student demonstrates sound knowledge of content and understanding of course concepts and applies skills and processes in a range of familiar contexts.</p> <p>In addition, the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.</p>	<b>30-39</b>
<b>D</b>	<p>The student demonstrates a basic knowledge of content and understanding of course concepts and applies skills and processes in some familiar contexts.</p> <p>In addition, the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.</p>	<b>16-29</b>
<b>E</b>	<p>The student demonstrates an elementary knowledge of content and understanding of course concepts and applies some skills and processes</p>	<b>0-15</b>

**Rubric:**

Criteria	Limited	Basic	Sound	High	Outstanding
<p><b>Criteria 1</b></p> <p><b>Describes how systems are used in enterprise and how data is safely and securely collected, stored and manipulated when developing enterprise computing systems.</b></p> <p><b>EC-11-01</b></p> <p><b>EC-11-03</b></p>	<p>The student's documentation of the system and data in the interconnected network device is incomplete or was not provided.</p>	<p>The student identifies ways systems are used in an enterprise system and how to implement procedures and security protocols considering cybersecurity in the interconnected network device.</p>	<p>The student outlines ways systems are used in an enterprise system and ways to implement procedures and security protocols considering cybersecurity in the interconnected network device.</p>	<p>The student describes ways systems are used in a range of enterprise systems and how the use of data in the interconnected network device operates including aspects such as how to implement procedures and security protocols considering cybersecurity.</p>	<p>The student describes ways systems are used in a range of enterprise systems and how the use of data in the interconnected network device operates.</p> <p>The student explains how the interconnected network device will implement procedures and security protocols considering cybersecurity.</p>
<p><b>Criteria 2</b></p> <p><b>Describes how data is used in enterprise computing systems.</b></p> <p><b>EC-11-04</b></p>	<p>The student's video mentions data used in the interconnected network device.</p>	<p>The student's video identifies use of data in the interconnected network device.</p>	<p>The student's video outlines use of data in the interconnected network device.</p>	<p>The student's video describes the use of data in the interconnected network device, including aspects such as user feedback and hardware.</p>	<p>The student's video describes the use of data in the interconnected network device.</p> <p>The student explains how the digital product will collect user feedback and the performance requirements of</p>

Criteria	Limited	Basic	Sound	High	Outstanding
					hardware.
<p><b>Criteria 3</b></p> <p><b>Explains how innovative technologies have influenced systems and explores the social, ethical and legal implications of the application of enterprise computing systems on the individual, society and the environment.</b></p> <p><b>EC-11-06</b></p> <p><b>EC-11-07</b></p>	<p>The student's video identifies innovation and some social, ethical and legal implications.</p>	<p>The student's video identifies innovative technologies and social, ethical and legal implications.</p>	<p>The student's video outlines innovative technologies used in networking and outlines social, ethical and legal implications.</p>	<p>The student's video describes innovative technologies used in networking and social, ethical and legal implications on the individual, society and the environment.</p>	<p>The student's video describes innovative technologies used in networking and their influence on enterprise systems.</p> <p>Relevant social, ethical and legal implications on the individual, society and the environment are explored in the video.</p>
<p><b>Criteria 4</b></p> <p><b>Uses film to document the management and evaluate</b></p>	<p>The student attempts to create a film/documentary based on the themes and issues</p>	<p>The student creates an, informative, film/documentary. The film/documentary</p>	<p>The student creates a substantial and informative, film/documentary. The film/documentary</p>	<p>The student creates a well-developed, informative, and entertaining film/documentary. The</p>	<p>The student creates an outstanding, informative, and entertaining film/documentary. The</p>

Criteria	Limited	Basic	Sound	High	Outstanding
<p><b>the development of an enterprise solution.</b></p> <p><b>EC-11-09</b></p>	presented.	demonstrates use of production including a range of filming processes and techniques including pre- and post-production. The end product is a film/documentary of an elementary standard.	y demonstrates reasonable quality in some aspects of its production including a range of filming processes and techniques including pre- and post-production. The end product is a film/documentary of substantial standard.	film/documentary demonstrates reasonable quality in every aspect of its production including a range of filming processes and techniques including pre- and post-production. The end product is a film/documentary completed to a high standard.	film/documentary demonstrates quality in every aspect of its production including a range of filming processes and techniques including pre- and post-production. The end product is a film/documentary of professional standard.
<p><b>Criteria 5</b></p> <p><b>Original use of video footage to document the management and evaluate the development of an enterprise solution.</b></p> <p><b>EC-11-09</b></p>	The student attempts to capture relevant and original footage related to the task.	The student provides original video footage that they have captured. The footage directly relates to some of the themes and issues associated with this task.	The student provides a range of original video footage that they have captured. The footage directly relates to the themes and issues associated with this task.	The student provides a wide range of original video footage that they have captured. The footage directly relates to the themes and issues associated with this task.	The student provides an outstanding range of original video footage that they have captured. The footage directly relates to the themes and issues associated with this task.
<p><b>Criteria 6</b></p> <p><b>Students</b></p>	The student attempts to provide a	The student provides a limited	The student provides a substantial	The student provides a detailed narration	The student provides an extensive and



<b>Criteria</b>	<b>Limited</b>	<b>Basic</b>	<b>Sound</b>	<b>High</b>	<b>Outstanding</b>
<b>narrated voice to document the management and evaluate the development of an enterprise solution.</b>  <b>EC-11-09</b>	narration using their own voice.	narration using their own voice.	narration using their own voice.	of the themes and issues using their own voice. Audio clarity is of a high standard.	detailed narration of the themes and issues using their own voice. Audio clarity is of a professional standard.