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System Software and Computing Concepts (CT123-3-1-SSCC)

Total Marks: 40%

1. Group Assignment

Intake	:	
Hand-Out Date	:	Week 5
Hand-in Date Work	:	Week 12
Lecturer	:	███████████

2. Instructions:

- This is a group assignment. You will be set up into groups (about 6 members per group).

- The group is to research and investigate an area of Computing in information technology as it is used within a context.

- The goal of this assignment is to engage students in critical thinking about the implementation of a **Smart Classroom** in Education.

    - *You are not writing a document about How or What the capabilities of this piece of tech are. Rather, you are writing about the advantages and disadvantages of this piece of Technology in this particular environment according to your understanding of Technology.*

    - *You are not describing How the Technology works, you are describing the benefits that you think the Technology will be able to provide and highlighting the dangers that you think the Technology is going to provide.*

    - *Summary: It is one thing to write about Technology and it is another thing to write regarding evaluating the use of Technology. Your concentration is what is good and bad not how it works. Most of your assignments in other Modules will be How does XYZ work? – To describe and explain. This is not it. This explains what you feel, what you think and what you understand, is an advantage or a risk in using this Technology.*

- By exploring your attitudes, values and emotional responses, you will gain a deeper understanding and appreciation of the specified technology.

- The total word count of the report should be within the range of 5,000 words. You may exceed this word count if your topic necessitates it however, the limit for word count should be +/- 1000 words. Range: 4000 - 6000 words.

- No marks will be awarded for the entire assignment if:
  - Any part is copied directly from published materials or another student.
  - There is "careless" use of AI tools (*see Section 5: Citing AI Tools…*).
  - The work does not adhere to the assignment case.

- All submissions should be made on or before the due date. Submissions must be on time before the deadline to be entertained. **A zero (0)** mark will be awarded for late submission unless extenuating circumstances are upheld.

- All highlighted items in this document require a good amount of research and as a group, you all must understand the fundamentals before proceeding with the tasks.

- As a group, you will be researching the implementation of a Smart Classroom. Your task is to **investigate and reflect** on the impact Smart Classrooms have had on Educational Institutions.
  - *The term Smart Classroom has been highlighted which means Step 1 to Google – what is a smart classroom? How does a smart classroom work? What are the components included in a smart classroom? What are the benefits of using a smart classroom? You have to have contextual awareness that is literally where you begin.*
  - ***Investigate & Reflect****: you are not writing about what a smart classroom is; you are going to be writing about the benefits and the impact of the smart classroom.*

2A. An Exploration of Smart Classrooms: (Group)

- Begin by researching and providing a concise definition of what constitutes a smart classroom. Include examples of common smart technologies used in educational settings (e.g., <mark>interactive whiteboards</mark>, <mark>digital learning platforms</mark> (Moodle & Microsoft Teams), <mark>automated attendance systems</mark> (*QR Code taking attendance*)).

- **Note**: *Section 2A would be a basic definition of what is smart classroom is. Combining every group member's definition in their own and constructing in final draft. Example Sources: [Smart Classrooms: What Are They & How Do You Set One Up?](#)*

2B. Attitude Exploration: (Individual)

- Reflect on your personal attitude toward smart classrooms. Consider questions such as:
  - How do you feel about the integration of technology in the classroom?
  - What excites you about smart classrooms? (*Like*) What concerns you? (*Dislike*)
  - Are there any ethical considerations related to student privacy or data security?
  - Make sure to document the above as it will be relevant to **2E: Personal Reflections**

- **Note**:
  - *The assignment is not about you explaining the Technology; is about you identifying the impact technology has on a certain use case. In this case, smart classrooms in the education sector – How do you feel about it that is Attitude Exploration.*

  - *Every group member will do their part and place it one after the other. Example: Student 1 Section B, Student 2 Section B,…*

2C. Value Assessment: (Group)

- Identify and discuss the values associated with smart classrooms. Consider the following:
  - **Enhanced Learning Experience**: How can smart classrooms improve student engagement and learning outcomes?
    - *What are the advantages of using smart classroom technologies and what benefits do they offer students?*

  - **Equity and Accessibility**: Explore how smart technologies impact students with diverse needs.
    - *Equity → has to do with the concept of equality, and fairness.*
    - *Accessibility → how easily can people get access to that technology?*
    - *In other words, is the technology so complicated and so expensive? That is not easy to be used by people who are not rich or is the technology accessible which means it is very cheap?*

  - **Sustainability**: Consider the environmental impact of technology adoption in education.
    - *Sometimes the use of technology reduces the amount of resources that are used in the world.*

    - *For example, I am going to order food and I am going to drive to the actual place to place my order, wait for my order, and bring it back that will cost me time and I will probably drive a car that uses fuel and it is burn to causes pollution. If everybody wanted to buy food and they had to drive and go out to buy the food, it would contribute to the pollution of the environment by using necessary energy, and fuel to power your vehicles. But now you have an online platform where you can place an order. The beauty of that online platform is because so many people are placing orders online, you can combine many people's orders on one rider's bike, which is cheaper and easier to manoeuvre, and that one guy will deliver to multiple people. So instead of those multiple people having to have made the journey to the restaurant and come back spending more fuel, you have just one person delivering to several people. So that's part of sustainability.*

2D. - Case Study Analysis: (Group)

- Choose a real-world case study related to the implementation of smart classroom technology (e.g., a school adopting a new learning management system).

- Analyse the case study from an affective (*relating to moods feelings and attitudes*) perspective:
  - **How do educators and students perceive the changes brought about by smart classrooms?**
    - *In other words, the people who you're looking at the case study from how did they feel at the end of their adoption of smart technologies in the classroom? Were the teachers happy? Were the students happy? Was the school administration happy?*

  - **What emotions are associated with the transition?**
    - *Did they like the transition from no technology to smart technology?*

2E. - Personal Reflections: (Individual)

- Write a reflective essay (around 800 words for each student) synthesizing your attitude, values, and insights related to smart classrooms.

- Consider both positive and negative emotions, ethical considerations, and potential implications for teaching and learning.

- **Note***:*
  - *Every group member will do their part and place it one after the other. Example: Student 1 Section E, Student 2 Section E,…*

3. Guidelines for the Report:

- Document the results of your work **professionally and systematically**, in the form of a **computerized report,** appropriately formatted.

- Your completed documentation should include the following sections:
  - Cover
  - Abstract
  - Table of contents
  - Introduction
  - Chapters / Sections
  - The following chapters should be a **combination/summary** of **ALL** student's works/findings
    - An Exploration of Smart Classrooms
    - Attitude Exploration
    - Value Assessment
    - Case Study Analysis
    - Personal Reflections
  - Conclusion
  - References

3A. Reminder for Sections 2B and 2E

For Sections 2B and 2E, you will need to submit individual contributions initially, but these sections will be combined into a unified document for the final submission.

Here's how you should approach it:

- **Individual Contributions**:
  - Each group member should write an 800-word personal reflection for Section 2E. This should capture your individual insights and perspectives.
  - Ensure that you address unique ideas and points of view in your personal reflections.

- **Combining Contributions**:
  - Once all individual reflections are collected, you will merge them into one cohesive section.
  - In the final combined section, consolidate similar ideas to avoid redundancy. Each point should be represented only once, even if multiple members have mentioned it.
  - The final combined section should include every unique piece of data from each group member.

- **Length and Submission**:
  - The length of the combined section can vary, but ensure that the overall document does not exceed 6000 words.
  - Focus on synthesizing all individual reflections into a coherent narrative that includes the unique perspectives of all group members.

By following these guidelines, you will create a comprehensive and well-organized final submission.

4. Assessment Criteria (Marking Grid) - 100%

4A. Assessment Criteria (Marking Grid):

1. Formatting (10%)

- **Distinction:** Excellent formatting with perfect line spacing, numbering, margins, and headers/footers. Spelling and grammar are flawless. APA referencing style is correctly applied.

- **Credit:** Good formatting with most elements well done. APA referencing style is applied correctly.

- **Pass:** Sufficient formatting with APA referencing done. The report appears a bit unpolished due to minor missing formatting elements and typos.

- **M-Fail:** Poor formatting with minimal consideration for readability. Referencing may be incomplete.

- **Fail:** Very poor formatting with no attention to readability. Referencing is inadequate or missing.

2. Clarity and Coherence (30%)

- **Distinction:** Outstanding style with effective use of rhetorical devices, tone, and sentence structure. The report is logically organized and formatted appropriately for its purpose. Writing is articulate and consistent.

- **Credit:** College-level style with appropriate tone and use of rhetorical devices. The report is logically organized and formatted as a report, though not specifically tailored for its purpose. Writing is mostly articulate and consistent.

- **Pass:** Approaches college-level usage with some variety in sentence patterns and rhetorical devices. The report is logically organized but lacks specific formatting for its purpose. The writing is mostly clear, but the tone could be more consistent.

- **M-Fail:** Elementary form with limited sentence structure, diction, and rhetorical devices. The report is logically organized but not formatted as a report. The writing is understandable but the tone is inconsistent.

- **Fail:** Lacks logical organization and proper formatting as a report. Writing is unclear with an inappropriate or inconsistent tone.

3. Critical Thinking (30%)

- **Distinction:** High degree of attention to logic and reasoning. Unity in writing leads the reader to the conclusion and stimulates thought. The content shows the synthesis of ideas, in-depth analysis, and original thought with strong support.

- **Credit:** Coherent and logically organized writing with good transitions. Unity of ideas is present. Content shows original thinking with sufficient evidence and analysis.

- **Pass:** Some misplaced points but overall coherence with the logical organization. Transitions are evident but not consistent. The content shows some original thought with basic reasoning.

- **M-Fail:** Shows some reasoning but ideas are underdeveloped and lack unity. Writing lacks logical organization and coherence.

- **Fail:** Serious errors in reasoning and originality. Ideas are poorly developed and lack coherence.

4. Depth of Reflection (30%)

- **Distinction:** Excellent transformative reflection leading to profound shifts in thinking and values. Challenges existing beliefs and seeks personal growth. The introduction and analysis of the device are comprehensive.

- **Credit:** Good reflection with significant insights and understanding. The introduction highlights primary innovations, and the analysis is comprehensive and logical.

- **Pass:** Acceptable reflection with sufficient detail on the device. The introduction lacks some detail and the analysis is less comprehensive.

- **M-Fail:** Poor reflection with minimal insight into the device. The introduction and analysis lack depth and detail.

- **Fail:** Fails to reflect meaningfully on the device. Key aspects of analysis are missing or inadequate.

4B. Marking Criteria:

1. Distinction

- Demonstrated comprehensive research with detailed evidence. High level of analysis performed, exceptional and thorough knowledge and understanding displayed about attitude, values, and insights on System Software and Computing Concepts. Documentation is presented professionally, without any spelling or grammar mistakes. Displayed evidence of critical appraisal.

2. Credit

- Adequate research was conducted with fair detail of evidence presented. Moderate level of understanding, analysis and knowledge displayed. Good level of documentation presented. Some level of reflection in the documentation. Moderate level of critical appraisal.

3. Pass

- Low-level research was conducted. Some evidence of research is displayed. Basic level of analysis, knowledge and understanding displayed. Satisfactory level of documentation. Satisfactory or low level of reflection displayed. Poor level of critical appraisal demonstrated.

5. Citing AI Tools in Your Assignments

5A. AI and Your In-Course Assignments

- **Confirm Usage: Always verify with your professor** whether the use of AI tools, such as ChatGPT, **is permitted for each assignment**.

- **Verify Information:** Ensure that you cross-check any information and sources provided by AI tools. **AI may generate incorrect information or cite non-existent sources,** and it can also present content without proper attribution, raising ethical concerns.

- **Non-Retrievable Content:** AI-generated content is typically non-recoverable and cannot be linked or retrieved for citation purposes. As such, it should be cited as **personal communication**.

- **Personal Communication Citation:** Content derived from AI tools should be cited in-text as personal communication. This citation format does not appear in the References list.

- **APA Style for AI:** According to current APA guidelines, AI-generated text should be cited as "Personal Communication." The citation includes the communicator and the date but is not included in the References list.

5B. APA Citation Format

- **In-Text Citation:**
  - (Communicator, personal communication, Month Date, Year)
    - Example: (OpenAI, personal communication, January 16, 2023).

- **Usage in Text:**
  - When referring to information generated by AI, include the citation as follows:
    - Example: When asked to explain psychology's main schools of thought, OpenAI's ChatGPT's response included ... (personal communication, February 22, 2023).

5C. Note

- This guidance is subject to change as recommendations and best practices for citing AI tools evolve. Always consult the latest APA style guidelines or your professor for the most current information.

Location: [Location]
Date: [Date]
Time: [Time]

Attendance:
[List Names of Attendees]
Absentees:
[List Names of Absentees]

Agenda Items:
- [First Agenda Item]
- [Second Agenda Item]
- [Third Agenda Item]
- [Additional Agenda Items as Needed]

Action Items:
1. **Item Description:** [Brief Description]
   Responsible: [Name or Team]
   Due Date: [Date]
2. **Item Description:** [Brief Description]
   Responsible: [Name or Team]
   Due Date: [Date]
3. **Item Description:** [Brief Description]
   Responsible: [Name or Team]
   Due Date: [Date]
4. **Item Description:** [Brief Description]
   Responsible: [Name or Team]
   Due Date: [Date]

Other Notes:
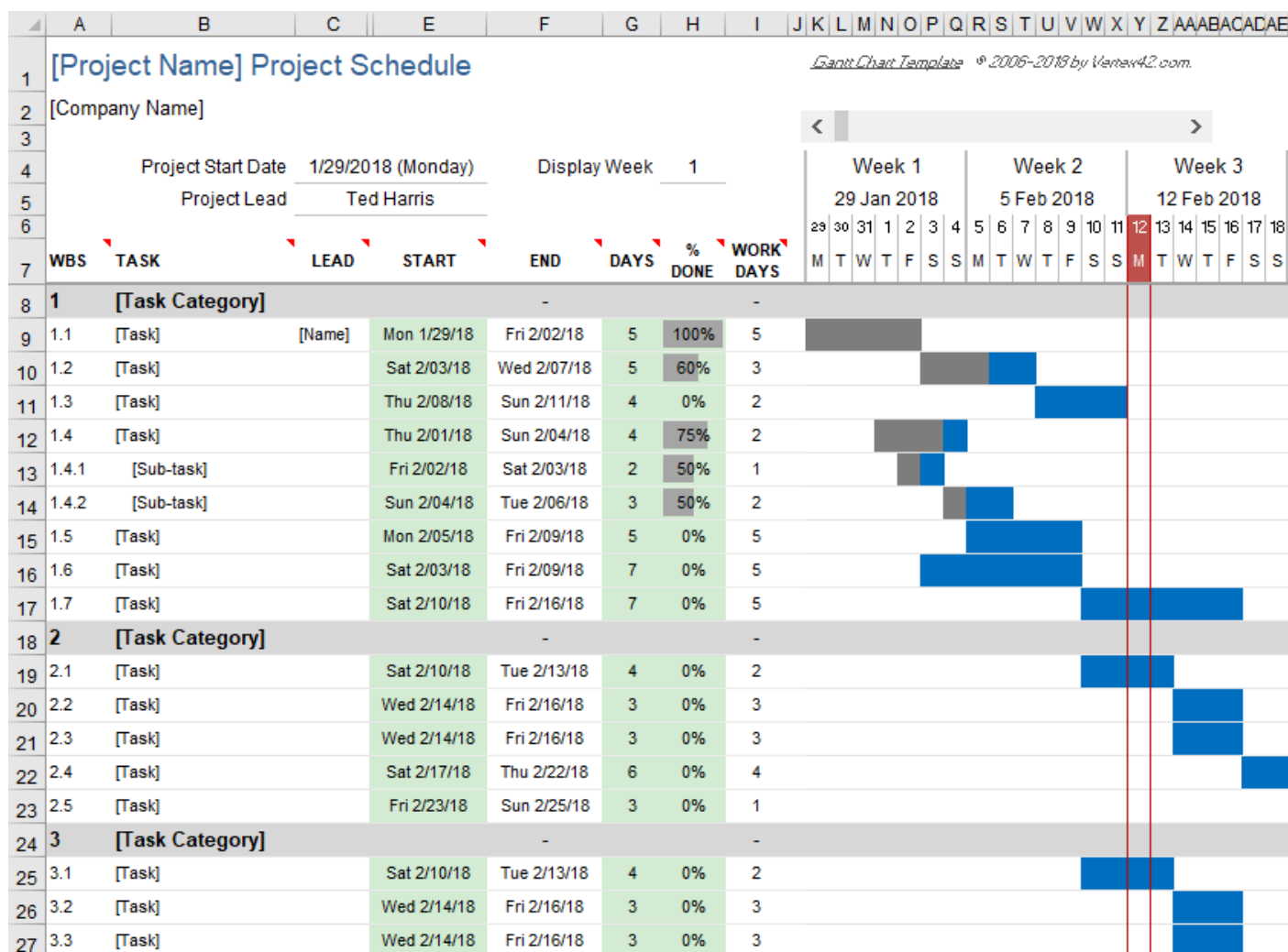[Include any additional important details or discussions that occurred during the meeting.]

This template provides a structured format for documenting meeting minutes, ensuring that all relevant information is clearly recorded and easily accessible.

7. Submission Guidelines

Week 1:
- No specific activities or submissions are scheduled.

Week 2:
- No specific activities or submissions are scheduled.

Week 3:
- No specific activities or submissions are scheduled.

Week 4:
- No specific activities or submissions are scheduled.

Week 5:
- **Activity:** In-course Assignment Brief
- **Post-activity:** Introduction to the topic.

Week 6:
- **Activity:** Submission of **Section 2A**
- **Remark:** Submission of **Sections 2A & 2B** will be due at the end of Week 7.

Week 7:
- **Activity:** Submission of **Section 2B**
- **Remark:** Submission of **Sections 2A & 2B** will be due at the end of Week 7.

Week 8:
- **Activity:** Test 1 (Hardware)
- **Pre-requisite:** Submission of **Sections 2A & 2B**
- **Topics Covered:** Digital Logic Gates, Computer Hardware & Subsystems.

Week 9:
- **Activity:** Submission of **Section 2C**

Week 10:
- **Activity:** Submission of **Section 2D**
- **Pre-requisite:** Single topic selection from the given case studies.

Week 11:
- **Activity:** Submission of **Section 2E**

Week 12:
- **Activity:** Test 2 (Software)
- **Pre-requisite:** Submission of **Section 2C - 2E**
- **Topics Covered:** Operating Systems Concepts, including CPU Scheduling, Memory Management, Disk Scheduling, and File Systems.

Week 13:
- No specific activities or submissions are scheduled.

Week 14:
- **Activity:** Final Assignment Submission
- **Pre-requisite:** N/A
- **Post-activity:** Consolidated work from all students.
- **Due Date:** **Sunday, 6 October 2024, 11:59 PM**

8. Gantt Chart - Vertex42.com

[Project Name] Project Schedule

[Company Name]

Gantt Chart Template © 2006-2018 by Vertex42.com.

| | | Project Start Date | 1/29/2018 (Monday) | Display Week | 1 |
| | | Project Lead | Ted Harris | | |

Week 1	Week 2	Week 3
29 Jan 2018	5 Feb 2018	12 Feb 2018

WBS	TASK	LEAD	START	END	DAYS	% DONE	WORK DAYS
1	[Task Category]			-			-
1.1	[Task]	[Name]	Mon 1/29/18	Fri 2/02/18	5	100%	5
1.2	[Task]		Sat 2/03/18	Wed 2/07/18	5	60%	3
1.3	[Task]		Thu 2/08/18	Sun 2/11/18	4	0%	2
1.4	[Task]		Thu 2/01/18	Sun 2/04/18	4	75%	2
1.4.1	[Sub-task]		Fri 2/02/18	Sat 2/03/18	2	50%	1
1.4.2	[Sub-task]		Sun 2/04/18	Tue 2/06/18	3	50%	2
1.5	[Task]		Mon 2/05/18	Fri 2/09/18	5	0%	5
1.6	[Task]		Sat 2/03/18	Fri 2/09/18	7	0%	5
1.7	[Task]		Sat 2/10/18	Fri 2/16/18	7	0%	5
2	[Task Category]			-			-
2.1	[Task]		Sat 2/10/18	Tue 2/13/18	4	0%	2
2.2	[Task]		Wed 2/14/18	Fri 2/16/18	3	0%	3
2.3	[Task]		Wed 2/14/18	Fri 2/16/18	3	0%	3
2.4	[Task]		Sat 2/17/18	Thu 2/22/18	6	0%	4
2.5	[Task]		Fri 2/23/18	Sun 2/25/18	3	0%	1
3	[Task Category]			-			-
3.1	[Task]		Sat 2/10/18	Tue 2/13/18	4	0%	2
3.2	[Task]		Wed 2/14/18	Fri 2/16/18	3	0%	3
3.3	[Task]		Wed 2/14/18	Fri 2/16/18	3	0%	3

8A. Gantt Chart Template for Excel

- https://www.vertex42.com/ExcelTemplates/excel-gantt-chart.html

8B. About This Template

- This Gantt Chart Template provides an easy way to create a simple project schedule. You only need to know some basic spreadsheet operations, such as how to insert, delete, copy and paste rows and cells. For more advanced uses, such as defining task dependencies, you will need to know how to enter formulas.

- Be sure to read the Getting Started Tips below. Watching the video demos for Gantt Chart Template Pro may also help you see how to use the spreadsheet.

- Watch Demo Videos of the Pro Version on Vertex42.com. Please read the license agreement in the TermsOfUse worksheet to learn how you may or may not use and share this spreadsheet.