Computer Science - Core Skills

Semester 1

BSC109224 Group A

Assignment 4

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SUMMARY

Question 1 (50%): The vi editor

For this exercise, you must use vi:

You must use Zoom (or a similar tool) to record a video of yourself, similar to the previous assignment. You should introduce yourself stating your name, student number, course and cohort. The video should be clear, concise and cover all the requested tasks. Your face and the screen of the application you use must be visible at all times. You may not paste any text and it must all be typed in. When you are finished the video should be named A4Q1.mp4 for example if my student number is 71234 then my file would be 71234_A4Q1.mp4. You should create a public GitHub repository and upload your video into this repository, you may delete the repository once your have received your grade. You need to include a link to the repository in your answer report.

The goal of this exercise is to show your knowledge of vi, ability to use vi and vi commands. You are free to use any vi command to help you accomplish the task but you must describe what you are doing as you do it and explain your choice of command. Create a file called mypoem.txt and type in the following poem, exactly as it is below:

Let me not to the marriege of true minds
Which alters when it alteration finds,
Admit impediments; lave is not love
O, no, it is an ever-fixed mark,
Or bendz with the remover to remove:
It is the ster to every wand'ring bark,
That looks on tempests and is never shaken;

Now correct the poem to the following and save your work as mypoem-2.txt:
Let me not to the marriage of true minds
Admit impediments; love is not love
Which alters when it alteration finds,
Or bends with the remover to remove:
O, no, it is an ever-fixed mark,
That looks on tempests and is never shaken;
t is the star to every wand'ring bark,
Whose worth's unknown, although his heighth be taken.
Love's not Time's fool, though rosy lips and cheeks
Within his bending sickle's compass come;
Love alters not with his brief hours and weeks,
But bears it out even to the edge of doom.

If this be error and upon me proved,
I never writ, nor no man ever loved.

You should now change the text in your file to the following and show your favorite vi commands to do so and save your work as mypoem-3.txt:
Let me not to the marriage of true minds
Admit impediments; love is not love
Admit impediments; love is not love
Which alters when it alteration finds,
Which alters when it alteration finds,
Which alters when it alteration finds,
Or bends with the remover to remove:
Or bends with the remover to remove:
Or bends with the remover to remove:
Or bends with the remover to remove:
O, no, it is an ever-fixed mark,

O, no, it is an ever-fixed mark,
O, no, it is an ever-fixed mark,
O, no, it is an ever-fixed mark,
O, no, it is an ever-fixed mark,

Please explain and demonstrate how you would do the following:
● Copy a whole line.
● Turn on line numbers
● Delete just one word on a line
● Search in a file for the word love
● Replace one character in a word
● How would you undo your last action

You can find the video in my GitHub repository, just click in the link below:
https://github.com/LucasMaranho21/assignment_4

Question 2 (50%): CRITICAL THINKING

Part A:

Write a brief explanation of what you understand Critical Thinking to be. You should answer this question using diagrams, explaining any methodologies and citing where appropriate. You must write your answer in your own words.

The goal of this exercise is to show you both understand Critical Thinking and have a methodology to apply it.
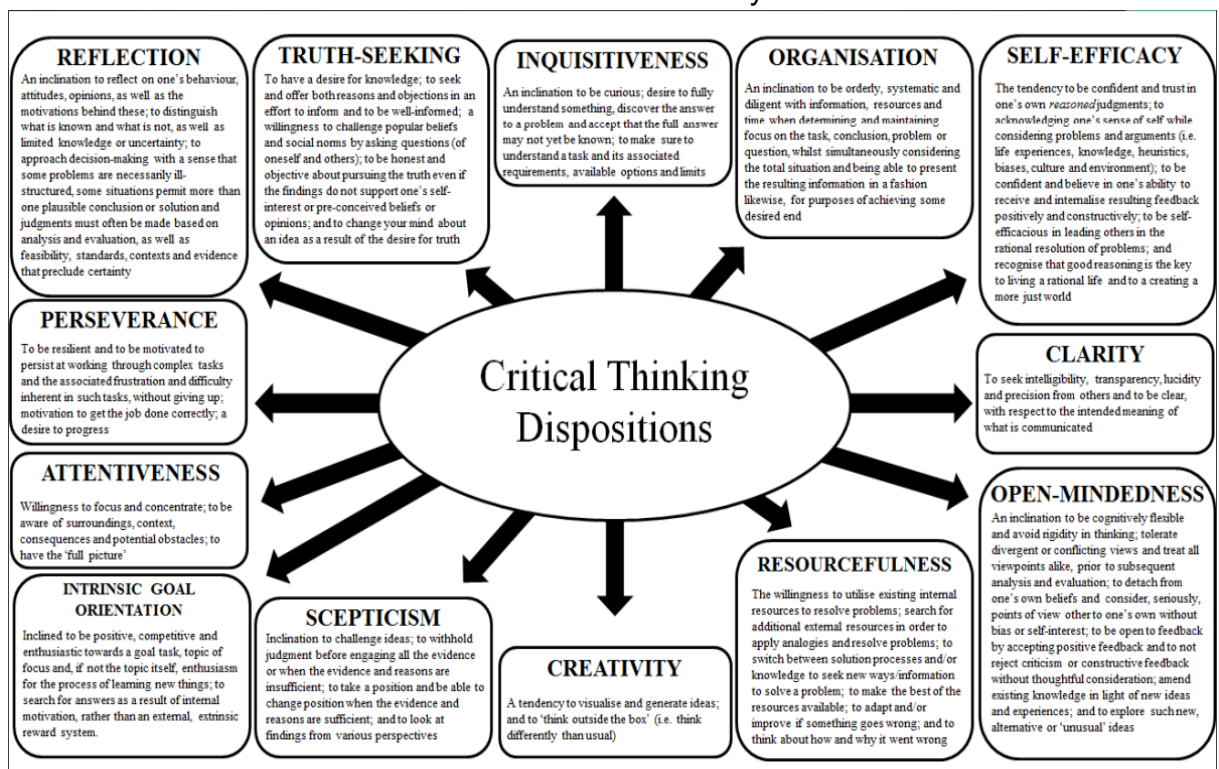
ANSWER (520 words):

1. CRITICAL THINKING:

Critical thinking is the ability to think deeper with logical thoughts about ideas. This kind of thoughts increase the chance of solving logical problems or give to you a conclusion to a valid argument.

Based on some research, there are some keys that help you to have a good critical thinking:

1. Dispositions: When a person has disposition towards critical thinking, it gives them, motivation to make decision and solve problems by using critical thinking. People believe that using critical thinking help them to receive good judgment and tend to approach them having a decision of understanding the problem as better   as   they   can.

2. Skills:
   I. **Analysis**: People don't tell what they think or believe, to get this information you have to ask and then you Analise a better way to understand a complex situation, even breaking it down in small parts to get a conclusion progressively.
   II. **Evaluation**: check the relevance, quality and officiality of evidence or argument.
   III. **Interference**: Bring logical conclusion to evidence, based on analysis and evaluation.

People should care about their decisions, because what they think and want may or may not be a logical decision or reason to do.
Before getting a decision, they should question themselves adding but and because, but why?
Deciding to focus on acceptable reasons is not a critical thinking, because you are taking the decision based on your own beliefs.
Examples:
Do we have to be friends of all our family member just because they are our family?
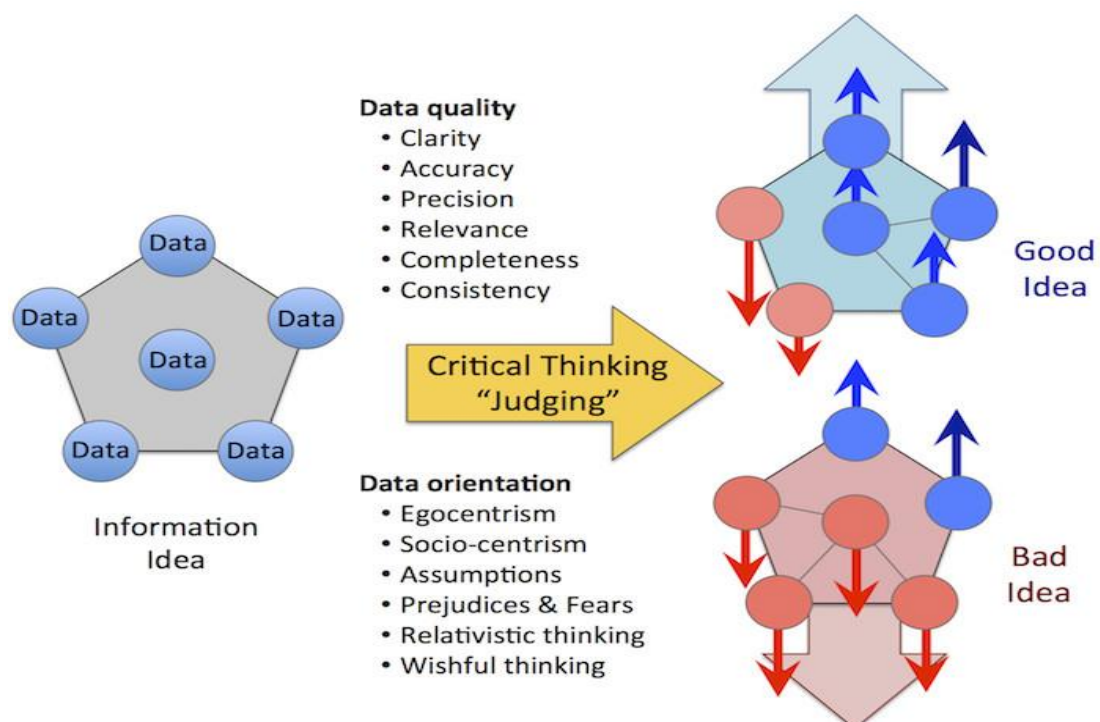Yes, we must be friends of all our family because they always help us when we need.
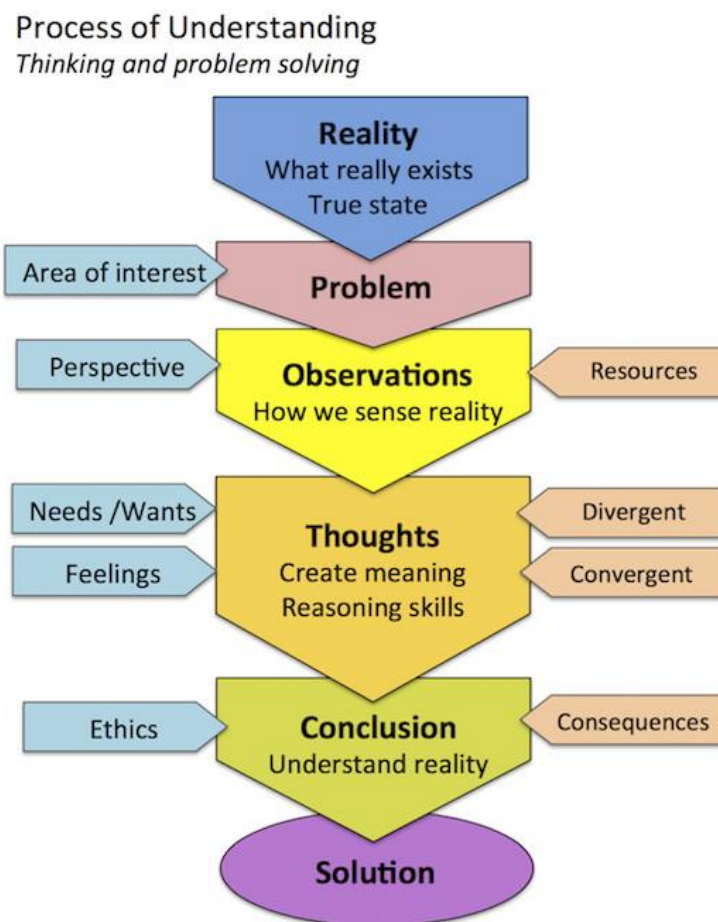But they won't help if it is going to cause problems for them in future.
Yes, because family is forever. But you can just ignore their existence.
No, because they are selfish, when they got engaged with other family, they will think what's best for them. But the other family help it about the selfishness.

3. Reflective judgement: it is the critical thinking from an individual's perspective of knowledge. It is more about going back in their thoughts.

4. Application: It is the action taken.
   I. Argumentation – recognise the point given and judge if its good or bad.
   II. Verbal reasoning – find out if the given structure is true, false and deduce.
   III. Hypothesis – understand that some points cannot be made depending on the reasons.
   IV. Judging Uncertainty – it Shows some points that it's probably wrong and other situations where there is lack of confidence.
   V. Problem solving – find problems and give the solution from them with some alternative.

Process of Understanding
Thinking and problem solving

2. HOW TO DEVELOP CRITICAL THIKING?

After all this explanation, you are probably asking yourself, but how do I to develop critical thinking skills?

According to researchers, to develop critical thinking skills it is as any other skill, you will have to be patient, it will take time and practice. As a student, you can practice for example with other students with your lecturer about the topic studied. It doesn't come easily, so read and understand the topic is absolutely important, because you can have a strong argument compared to others.

Part B:

Consider the following question: Should students be allowed to use AI tools in answering assignment questions? You should answer this question using a structured critical thinking approach. You must write your answer in your own words and must use citations where appropriate. This is an exercise in using Critical Thinking and your goal should be to demonstrate in practice your critical thinking skills.

ANSWER: (425 WORDS)

1. AI TOOLS

Students shouldn't be allowed to use AI tools in answering assignment questions, but AI emerged to solve problems, answer some questions faster than others, and help the students to study with more information in one place at the same time. Are students using AI ethically? How can students learn the better way to use AI?

There are some ways to use AI in a good way. Let suppose that you have an exam to do, and you are afraid of doing it, so you can ask AI to simulate an exam for you based on information that you have been studying and give to it.

Learning how to use AI since you are young may help them in future, because they will have much more skills developed earlier.

According to research, there are pros and cons in using AI tools.

CONS

1. Copy and Paste.
   Most of students are using AI tools to answer questions only copying and pasting and saying that it is their own homework, what it is a cheating or plagiarism.

2. Limited critical thinking
   Students are not able to think deeply about topics which gives them zero motivation, because they use AI tools as a shortcut to think for them, making them lazy.

3. AI mistakes
   AI is a machine programmed by man, so it's not perfect and can make some mistakes.

4. Less learning
   Self-study can develop some essential skills such as critical thinking, analysis, Problem solving, but because of AI, students are losing these skills.

PROS

1. Accessibility
   AI offer learning access to all students, including disable students.
   for example:
   text to speech automatically for students with visual problems or speech to text automatic for students with difficult mobility.

2. Extra tool for research
   Students can use AI tool for research, clarifying some topics or giving some ways to follow in their assignment.
3. Responsible using
   AI is a tool that won't disappear, so professors would teach the students to use AI with etic and intelligent way.

AI there are more pros than cons, so the tendency is the improvement of the AI tool and people must get used to this kind of technology and improve their knowledge and etic to not be treated as a trash in future.

Using AI could make you more antisocial, because you would stop talking to people for information and just search in the tools, which could hinder the development of communication.

REFERENCES:

From Part A:
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2. https://www.criticalthinking.org/pages/defining-critical-thinking/766
3. https://www.linkedin.com/pulse/theory-application-critical-thinking-leadership-zeljko-zed-zidaric
4. https://asana.com/resources/critical-thinking-skills

From Part B:
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2. https://hongkongtesol.com/blog/using-ai-assignments-homework-strategies-students-and-teachers
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