| Variable Name | Type | Purpose |
| --- | --- | --- |
| font | Font.New | Changes text font in game |
| score | real | calculates the final score of the user at the end of the quiz |
| correctAnswer | int | Detects the number of correct answers in the quiz |
| incorrectAnswer | int | Detects the number of incorrect answers in the quiz |
| questions | array 1 .. 15+ of string | contains the questions for the quiz |
| quizTaken | boolean | Detects whether the user takes the Quiz or not. Offers different goodBye screens |
| information | array 1 .. 15+ of string | Contains the information about the hardware devices for the user to learn from |
| answer | string | To get the user’s answer and to be used within if statements |

| Procedure | Purpose |
| --- | --- |
| title | “Computer Hardware” is centred at the top of the screen. |
| intro | Displays use of the program, along with title and a Continue button (leads to mainMenu). |
| mainMenu | Displays the following buttons for the user to choose from: Learn (to learn the material), Quiz (to take the quiz), Instructions (for the instructions on what to do) and an Exit button. |
| instructions | Activated when the user clicks the Instructions button and it displays the instructions for the user. The window also has a Back To Main Menu button to return to mainMenu |
| goodBye | If the user chooses to exit, it will display a goodbye message. The window will close after a 10 second countdown or hasch key press |
| quiz  (userInput) | This will be the quiz where the user is tested on their knowledge on computer hardware. The quiz is specific questions where the user must enter a non-case-sensitive answer, there is only one correct answer. |
| display | Displays the result of the quiz and then returns to mainMenu |
| pauseProgram | To pause the program until the user presses a key to continue |
| process | Determines whether the user enters the correct or incorrect answer for the quiz and adds it to the correct or incorrect counter |
| learn | Displays the information about the hardware using an array and will cycle through the information when the user presses any key. There is a back button which returns to mainMenu, |

Computer Hardware (title)

[Question]

[User’s answer]

(Determines questions by randNum procedure with the **questions** array)

Computer Hardware (title)

1. Learn about computer hardware
2. Take the quiz
3. Determine how well you know computer hardware

Back to Main Menu

learn

intro

quiz (quizTaken := true)

[no output window]

correctAnswer := 0 + 1

incorrectAnswer := 0 + 1

(Determines correct and incorrect answer with if structures)

process

Picture

Computer Hardware (title)

Name

Description

Use (if applicable)

Press any key to advance to the next hardware device.

{P

Back to Main Menu

mainMenu

Computer Hardware (title)

Your score was [score] %! Well done.// Try again next time.

This program will return to Main Menu in \_\_ seconds

display (quizTaken := true)

Computer Hardware (title)

This program was designed and created by Tamir Arnesty.

This program will close in \_\_ seconds (countdown)

goodBye (quizTaken := false)

instructions

Computer Hardware (title)

Computer Hardware (title)

This program will teach you about computer hardware along with testing you on it. You will be given a final score after taking the quiz.

Find out how well you know computer hardware!

Continue

Exit

Instructions

Learn the Material

Take the Quiz