Assignment

Question 1:

Specification	What each specification means..	
Display	Outputs the information in visual form	
Processor (CPU)	Cores	If we have more than one core, we can divide one task into several parts and let each core work on one part of the task. Thus, having more cores means that we can speed up execution
	Clock speed / CPU frequency	This indicates the number of cycles a CPU performs per second. The CPU can perform more quickly with a higher number of cycles.
Random Access Memory (RAM)	Provides the device with the memory it needs to run multiple applications at once	
Cache Memory	Data and instructions that are frequently requested are stored in cache memory so that the CPU can access them without delay when needed	
Operating System (OS)	The primary program (system software) that manages all of a computer's hardware and other software	
Battery	The source of electric power which allows us to use the device as long as it is charged	
Secondary Storage	This is where we store all our files such as videos, images and documents which are non-volatile	

Device Name	Display	Processor	RAM	Cache Memory	Operating System	Battery	Secondary Storage	As a mobile device..
Apple iPad 10.2'' (9th generation)	Size: 10.2 inches Resolution: 2160 × 1620 pixels	A13 Bionic chip No of cores: 6 cores Types of cores: 2x2.65 GHz Lightning cores + 4x1.8 GHz Thunder Clock speed: 2.65 GHz	Size: 3GB Type: LPDDR4X SDRAM	L1 128 KB + 128 KB L2 8192 KB	iPad OS 15	Li-Ion, non-removable 8557 mAh (32.4 Wh)	Internal: 64 GB/ 256GB Does not have an internal memory card slot	This device is lightweight and compact, which makes it easy to carry around and use for most of our tasks at any time. Also, the A13 Bionic chip is made to be energy-efficient, which makes us do our tasks much more effectively.

Apple iPad Pro 11" (2022)	Size: 11 inches Resolution: 2388 × 1668 pixels	Apple M2 No of cores: 8 cores Types of cores: Four high-performance "Avalanche" cores + four energy-efficient "Blizzard" cores Clock speed: 3.50 GHz	Size: 8GB/ 16GB Type: LPDDR4X	High performance cores: L1 192 KB + 128 KB, L2 16 MB Energy-efficient cores: L1 128 KB + 64 KB	iPadOS 16.1	Li-Po, 7538 mAh (28.65 Wh) non-removable	Internal: 128 GB/ 256 GB/ 512 GB/ 1024 GB/ 2048 GB Does not have an internal memory card slot	The Apple M2 processor is known as a faster processor which will allows us to run our programs much faster. This device is designed light weight and slim so that we are able to use at any time anywhere. The RAM is more than enough for essential tasks and also for gaming and for editing software.
Microsoft Surface Pro 9	Size: 13 inches Resolution: 2880 X 1920 pixels	12th Gen Intel® Core™ i5-1235U processor/ 12th Gen Intel® Core™ i7-1255U processor No of cores: 10 cores Clock speed: 4.40 GHz/ 4.70 GHz	Size: 8GB/ 16GB/ 32GB Type: LPDDR5 RAM	L3 12MB	Windows 11 Home	Up to 15.5 hours of typical device usage	Internal: 128 GB/ 256 GB/ 512 GB/ 1TB Type: SSD	A great device for those who require the portability of a tablet and the power of a laptop in a single device. The long-lasting battery also enables you to work for longer periods of time without needing to recharge.

Samsung Galaxy Tab S8+	Size: 12.4 inches Resolution: 1752 × 2800 pixels	Qualcomm SM8450 snapdragon 8 Gen 1 (4nm) No of cores: 8 cores Types of cores: 1 × Cortex-X2 + 3 × Cortex-A710 + 4 × Cortex-A510 Clock speed: 1 × 3 GHz/ 3 × 2.5 GHz/ 4 × 1.8 GHz	Size: 8GB/ 12 GB/ 16 GB	L2 1MB L3 6MB	Android 12	Li-Po, 10090 mAh, non-removable	Internal: 128 GB/ 256 GB/ 512 GB/ Storage can be expanded up to 256 GB with the use of a micro SD card	This device is designed slim with an excellent display panel. Multitasks better than other Android tablets. Long lasting battery life which allows you to work on your projects for longer.
Apple iPad Mini 6	Size: 8.3 inches Resolution: 1488 × 2266 pixels	Apple A15 Bionic chip No of cores: 6 cores Types of cores: 2 performance cores + 4 efficiency cores Clock speed: 2.93 GHz	Size: 4GB Type: LPDDR5	L2 12MB L2 4MB	iPadOS 16	Built-in 19.3-watt-hour rechargeable lithium-polymer battery	Internal: 64 GB/ 256 GB/ Does not have an internal memory card slot	This can be used for a variety of activities, including web browsing, reading e-books, watching movies, playing games, and using a selection of productivity apps using the strong A15 Bionic chip. Compared to most smartphones, it has a larger screen, which

								is advantageous for tasks requiring additional screen space.
Amazon Fire HD 10	Size: 10.1 inches Resolution: 1920 × 1200 pixels	Mediatek MT8183 Helio P60T No of cores: 8 cores Clock speed: 2 GHz	Size: 3 GB	Detail is not available	Android 9 (Pie), Fire OS 7	Li-Ion, non-removable, 12-hour battery	Internal: 32 GB/ 64 GB Storage can be expanded up to 1024 GB with the use of a micro SD card	Has a faster processor considering the price of the device. The RAM is sufficient for day to day essential tasks
Samsung Galaxy Tab A8	Size: 10.5 inches Resolution: 1200 × 1920 pixels	Unisoc Tiger T618 (12nm) No of cores: 8 cores Clock speed: 2 GHz	Size: 2GB/ 3GB/ 4GB	L3 1 MB	Android 11	Li-Po, 7040 mAh, non-removable	Internal: 32 GB/ 64 GB/ 128 GB Storage can be expanded up to 1024 GB with the use of a micro SDXC card	Has a solid performance thanks to the processor. Wide display is great for video streaming Furthermore, this device's battery has a long battery life

References [Accessed all in May 2023]

Device 1: Apple iPad 10.2'' (9th generation)

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Device 2: Apple iPad Pro 11'' (2022)

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Device 3: Microsoft Surface Pro 9

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Device 5: Apple iPad Mini 6

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Device 6: Amazon Fire HD 10

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Device 7: Samsung Galaxy Tab A8

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