

Unit 2, Assignment 2 - The Best Solution

Thomas Robinson

Introduction

This document lays out computer recommendations for Mr Ramachandra and his spice business.

System One

Dell XPS Tower

A traditional desktop setup with a separate tower and monitor. Offering some upgradability and more than ample performance for the business needs.

System

PART	COMPONENT	HOW IT RELATES TO NEEDS
CPU	i7-11700 (6 Core)	Latest generation mid-range CPU that will be more than enough to handle all of the applications Mr Ramachandra requires
RAM	16GB DDR4	This is enough to run the Windows 11 Operating System as well as many applications at once
GPU	RTX 3060Ti (8GB)	While not top-end, this dedicated GPU will accelerate the image-editing applications that the client needs to use
SSD	512GB NVMe	This is enough storage to hold the operating system and programs. Being PCIe NVMe means that it will be speedy, ensuring the OS remains responsive.
HDD	2TB 7200RPM	This additional hard drive can be used for storing the bulk of the business's data.
OS	Windows 11 Pro	Windows supports all of the software that the client needs and will likely be a familiar environment, ensuring productivity

Additionally includes keyboard and mouse

Pros

- Upgradable in future
- More than powerful for the business needs

Cons

- Expensive
- Takes up a considerable amount of space compared to other solutions
- Not Portable

Cost of the system from Dell.co.uk: **£1,369**

Additional Hardware

PART	CHOICE	HOW IT RELATES TO NEEDS	PRICE
PRINTER	Canon i-SENSYS LBP663Cdw	A business-oriented printer that will enable Mr Ramachandra to print his invoices and documents quickly	£313.99
DISPLAY	Dell P2722H	A 1080p 27" monitor for interacting with the computer	£208.00

Cost of the system with additional hardware: **£1,890.99**

System Two

Lenovo IdeaCentre AIO (3i)

An entry-level all-in-one (components and display are combined) computer.

System

PART	COMPONENT	HOW IT RELATES TO NEEDS
CPU	i3-10100T (4 Core)	A lower end chip from the previous generation of Intel CPUs.
RAM	8GB DDR4	If this is not enough for the client to multi-task, it can be upgraded in future.
GPU	Intel 630 Integrated	Graphics integrated into the processor. While far from the most performant, will be enough for light photo manipulation.
SSD	128GB PCIe	This is enough storage to hold the operating system and programs. Being PCIe NVMe means that it will be speedy, ensuring the OS remains responsive.
HDD	1TB 5400RPM	This additional hard drive can be used for storing the bulk of the business's data.
OS	Windows 10 Home	Windows supports all of the software that the client needs and will likely be a familiar environment, ensuring productivity
DIS-PLAY	Built-in 27" 1080p IPS	The display is a part of the computer since this is an all-in-one.

This system additionally comes with a built-in WLAN (Wi-Fi) adapter and comes with a keyboard and mouse.

Cost of the system from [Lenovo.co.uk](https://www.lenovo.co.uk): **£579.99**

Pros

- All-in-one design is convenient
- System is affordable

Cons

- Not upgradable in future
- Not as performant as alternative options

Thomas Robinson

Additional Hardware

PART	CHOICE	HOW IT RELATES TO NEEDS	PRICE
PRINTER	Canon i-SENSYS LBP663Cdw	A business-oriented printer that will enable Mr Ramachandra to print his invoices and documents quickly	£313.99

Cost of the system with additional hardware: **£893.98**

System Three

Apple Macbook Air

A highly portable, efficient ultrabook.

System

PART	COMPONENT	HOW IT RELATES TO NEEDS
CPU	Apple M1 (8 Core)	An ARM CPU designed by Apple themselves to be exceptionally performant-per-watt.
RAM	8GB	This is not upgradable in future however will be enough to run the applications required
GPU	Apple M1 (7-Core)	Graphics integrated into the processor. Apple's graphics
SSD	256GB	This is enough storage to hold the operating system and programs. However, this is the only storage on the machine and after a while Mr Ramachandra may need to purchase external drives to store additional photos and documents.
HDD	None	N/A
OS	macOS	macOS can run all of the programs that the client will need to use, particularly the creative applications.
DIS-PLAY	Built-in 13" "Retina"	Apple are known for their high-quality laptop displays. However as this laptop is designed for portability, it is not sizable and may be difficult to read.

Cost of the system from Apple.co.uk: **£999.00**

Pros

- Good price-performance
- Portable (thought client does not require this)

Cons

- No upgradability
- Small display
- Limited expandability without dongles or docks

Additional Hardware

PART	CHOICE	HOW IT RELATES TO NEEDS	PRICE
PRINTER	Canon i-SENSYS LBP663Cdw	A business-oriented printer that will enable Mr Ramachandra to print his invoices and documents quickly	£313.99
USB-C DONGLE	Anker USB C to A Adapter	The Macbook has no USB-A ports that the printer uses to interface with the computer.	£9.99

Cost of the system with additional hardware: **£1322.98**

Software

The software Mr Ramachandra will need to use will be largely the same across all three systems.

Website Creation

To create and design his website, the client can make use of software such as Adobe Dreamweaver.

Image Editing

Perhaps the most demanding task, editing of the images can be done with software such as Adobe Lightroom or Darktable. Further manipulation can be done using programs like Adobe Photoshop or GIMP.

Spice Inventory

To manage the database of spices, programs such as Microsoft Access, Notion and Airtable could be utilised.

Order Database, Company Finances

Managing orders and finances can be done with suites such as Freshbooks, Quickbooks and SAGE. These are all online platforms that are built specifically for generating invoices and managing money.

Recommendation

My recommendation for Mr Ramachandra and his business is System Two. Not only is it the least expensive of the three suggestions I have put forth, but the all-in-one form factor will make it much easier to place into an office environment.

The performance of System One is beyond what is needed for the applications being ran.

The client did not specify that he needed an on-the-go device so therefore the Macbook (System Three) is also not applicable. Additionally, the small display and the requirement to use dongles and adapters may prove an annoyance.