**Part A**

**I**

**A**

**B**

**C**

**D**

**E**

**F**

**G**

**Objective** : Name and decribe each component



**H**

|  |  |  |
| --- | --- | --- |
| Download [**http://tinyurl.com/CW208-CAG-SIM**](http://tinyurl.com/CW208-CAG-SIM) PC Build Simulator.  Go through steps of building a PC, as you complete the simulation find and describe in detail components A to I. To run simulator first install <http://www.swffileplayer.com/> and open ***RootMovie.swf*** using SWF player. Alternatively install [Macromedia Flashplayer](https://fpdownload.macromedia.com/pub/flashplayer/updaters/32/flashplayer_32_sa.exe) . Ideally use a simulator as listed in class. | | |
| Label | Name each component | Description |
| A | Wireless NIC | Connects the computer to a wireless network |
| B | Video card | Provides video to display on the device |
| C | Heat sink fan | Circulates air |
| D | Power Supply | Provides electricity and power to the device to make it run |
| E | Optical Drive | Reads digital disks |
| F | Floppy disk drive | Reads / writes data to a floppy disk |
| G | Hard disk drive | Reads and writes data |
| H | SATA Cable | Connects drivers to the motherboard |
| I | Motherboard | The main printed component of the computer |

**Part B**

**Objective**

Compare a pre-assembled system and the components that could be assembled to build a comparable system. After completing this practical, you should be able to:

1. Identify the components of a pre-assembled system
2. Locate prices for components needed to assemble a comparable system
3. Compare the cost of a pre-assembled system and a self-assembled system.

If you can’t find exact match for components, find the closest possible substitute. Use the Internet and available computer-related publications as your sources for information. Examples of websites for computer parts [www.komplett.ie](http://www.komplett.ie), [www.dell.ie](http://www.dell.ie), [www.custompc.ie](http://www.custompc.ie) [www.amazon.de](http://www.amazon.de)

MAKE SURE TO INCLUDE VALID LINKS TO WEB REFERENCES

|  |  |  |
| --- | --- | --- |
|  | **Pre-Assembled Computer Package** | **Computer Package**  **Components** |
| **CPU** | |  |  | | --- | --- | |  | Intel Core i3 3240 | | Intel Core i5 9600 ( memory ) €208.20 |
| Intel Core i3 3240 |
|  |
| **Storage / Memory** | | |
| |  | | --- | |  | | RAM | | Hard Drive | |  | | |  | | --- | |  | | 8 GB RAM PC1600 | |  | |  |   1 TB HDD 7200 rpm | 8GB Kingston HyperX Fury RGB DDR4 3200MHz ( MemoryC Ireland ) €63.23  seagate SkyHawk Surveillance 1 TB Internal Hard Drive ( Rs Comonent ) €103.23 |
| **Input/Output** | | |
| |  | | --- | | Keyboard | | Pointing Device | | Monitor | | Speakers | | Network Adapter | |  | |  | | AMDI USB keyboard  AMDI USB Mouse  21.5 Inch Monitor is a 1080p Widescreen LED  802.11bgn | Apex 3 SteelSeries Keyboard  ( steel series ) € 80  Rival 3 SteelSeries Mouse ( steel series ) €40  Lenovo G24-10 23.6-inch FHD WLED Gaming Monitor ( Lenovo )  €149.99  RS PRO USB 3.0 to Ethernet Network Adapter ( Rs Online )  €44.40 |
| **Bundled Software**  (Including Operating System) | Windows 10 Included  ( Bundle off of amazon ) | Windows 10 € 60 |
| **Total Cost** | €946.43 | €749.05 |

Bundle

<https://www.amazon.co.uk/ADMI-Gaming-RGB-PC-Package/dp/B017M4Y59I/ref=asc_df_B017M4Y59I/?tag=googshopuk-21&linkCode=df0&hvadid=310708967400&hvpos=&hvnetw=g&hvrand=4163218753734146683&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=1007846&hvtargid=pla-573079200946&psc=1>

Adapter

<https://ie.rs-online.com/web/p/interface-adapters/1954912/?cm_mmc=IE-PLA-DS3A-_-google-_-CSS_IE_EN_Computing_%26_Peripherals_Whoop_HI-_-(IE:Whoop!)+Interface+Adapters-_-1954912&matchtype=&pla-305134174980&gclid=EAIaIQobChMIoofL-vLq8wIV8AWiAx3OMQFkEAQYAiABEgI2yPD_BwE&gclsrc=aw.ds>

Monitor

<https://www.lenovo.com/ie/en/accessories-and-monitors/monitors/gaming/G24-10C19236FY023-6inch-Monitor-HDMI/p/65FDGAC2UK?cid=ie%3Asem%7Cse%7Cgoogle%7C%7C&gclid=EAIaIQobChMIpJz51fLq8wIVxAh7Ch3IngJoEAQYAiABEgJ4EvD_BwE>

Mouse

<https://steelseries.com/gaming-mice/rival-3?country=BE&mpa=1&gclid=EAIaIQobChMIqOn2l_Tq8wIVuiB7Ch1cpA2FEAQYAyABEgIczPD_BwE>

Keyboard

<https://steelseries.com/gaming-keyboards/apex-3?country=BE&mpa=1&gclid=EAIaIQobChMIoLKnq_Tq8wIV0ImyCh02cAT0EAQYASABEgJBR_D_BwE>

Ram

<https://www.memoryc.ie/28438-8gb-kingston-hyperx-fury-rgb-ddr4-3200mhz-pc4-25600-cl16-1-35v-memory-module-black.html?fc=IE&gclid=EAIaIQobChMIrayRvPTq8wIVxuFRCh1KQw6gEAQYASABEgJX3_D_BwE>

Hard Drive

<https://ie.rs-online.com/web/p/hard-drives/1264379/?cm_mmc=IE-PLA-DS3A-_-google-_-CSS_IE_EN_Computing_%26_Peripherals_Whoop_HI-_-(IE:Whoop!)+Hard+Drives-_-1264379&matchtype=&pla-304523614043&gclid=EAIaIQobChMI_4rb0_Tq8wIV2dnVCh3EmA9tEAQYASABEgIjFPD_BwE&gclsrc=aw.ds>

Intel i5

<https://www.memoryc.ie/25433-intel-core-i5-9600k-3-7gh-9mb-coffee-lake-boxed-desktop-processor.html?fc=IE&gclid=EAIaIQobChMIhM-6y_Xq8wIVkgZ7Ch3n4gUyEAQYASABEgLhZPD_BwE>

**Part C**

**Objective**

You have been asked by a family friend to assist them with a computer purchase. They’re unfamiliar with technology and the terms used and have presented you with two alternatives machine choices. They would like to be able to write word documents, surf internet and play Minecraft © Mojang and Half-Life © Valve Software. They are considering playing Fortnight but are not sure yet, as it depends on machine cost and if they can extract some money from their Bitcoin wallet.

Compare Personal Computer Option A and B in relation to each of the side headings and recommend a system and any alterations.

|  |  |  |
| --- | --- | --- |
|  | Personal Computer  Option A | Personal Computer  Option B |
| CPU | 2.2 GHz Intel Celeron 450 | 3.2 GHz Intel Core i5 |
| Memory |  |  |
| |  | | --- | | Cache | | RAM | | Hard Drive | | CD-ROM/DVD | | |  | | --- | | 512 KB Cache | | 4 GB RAM | | 320 GB Hard Drive | | DVD+/-RW drive | | |  | | --- | | 4 MB Cache | | 8 GB RAM | | 1 TB Hard Drive | | DVD+/-RW drive | |
| Input/Output |  |  |
| |  | | --- | | Keyboard | | Pointing Device | | Screen | | Speakers | | Network Adapter | | |  | | --- | | USB multifunction keyboard | | USB optical mouse | | 20’’ HD flatscreen monitor | | Multimedia Speaker System | | Integrated 10/100/1000 Ethernet | | |  | | --- | | wireless multifunction keyboard | | wireless optical mouse | | 25’’ HD flatscreen monitor | | Dolby Surround Sound Speakers | | Integrated 10/100/1000 Ethernet | |

|  |
| --- |
| **Recommendations** |
| In option A the cpu is a lot worse than the cpu in option B. The better the cpu is in your computer the better the frame rate on the game that you are running.  The RAM in option B are also better because instead of getting the 4GB of Ram in the option A you get double the amount in option B. RAM is volatile memory that stores data temporarily for rapid access while gaming.  The hard drive in option A is a lot worse than the hard drive is in Option B. You are getting almost triple the storage in option B than in option A. The hard drive is key for gaming because it stores all of the games when you download them and all of the data from them games.  The keyboard and the mouse in both option is personal preference, if you want a mouse with a wire or if you want a wire without one. This is the same for the keyboard wire or no wire.  The monitor in option B is better because the screen is bigger this will allow for the display to be bigger and the display will be bigger and easier to see.  Both options have a CD Drive so that’s not a problem, because there both the same.  Id choose option B because overall it is a better system to play the games that you wanted too and what you wanted too use the device for. |

**Your Recommend System**

|  |  |
| --- | --- |
|  | Personal Computer  Recommendation |
| **CPU** | Intel core i5 |
| **Memory** | |
| |  | | --- | |  | | RAM | | Hard Drive | | SSD Drive | | |  | | --- | | Ram 8gb ddr4 | |  | | Seagate SkyHawk Surveillance 1 TB Internal Hard Drive | | 1TB Samsung 860 EVO M.2 Serial ATA III Internal Solid State Drive | |
| **Input/Output** | |
| |  | | --- | | Keyboard | | Pointing Device | | Screen | | Speakers | | Network Adapter  GPU | | |  | | --- | | Razer Blackwidow Keyboard  Razer deathaddar mouse  Lenovo G24-10 23.6-inch FHD WLED Gaming Monitor ( Lenovo )  €149.99 | | Logitech Z200 PC Speakers, 5 W (RMS)W (RMS) | | RS PRO USB 3.0 to Ethernet Network Adapter | | GTX 1060 | |  | |

Hand up this practical report at the end of session and ensure it has been checked

|  |  |  |  |
| --- | --- | --- | --- |
| **Student Name** | **Kyle Kelly** | **Student Number** | **C00261574** |
| **Date** | **27/10/2021** | **Checked** |  |
| **Group** | **A** |  |  |