**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 | Sound card | Allows the PC to create sound |
| B | GPU | Provides processing for graphics |
| C | CPU | The CPU interprets and processes instructions for programs. It is the brains of the PC |
| D | Power supply | Converts ac power to low dc and powers the pc components |
| E | Disk/DVD drive | Used to read programs off physical disks and dvds |
| F | Multi-card reader | Allows the PC to read cards such as micro SD and compact flash |
| G | Hard Drive | Stores data (none volatile) |
| H | SATA Wire | Used to connect hard drive to motherboard |
| I | Motherboard | circuit board that connects all of your hardware to the processor |

**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 i7-2600 Quad CPU 3.4 GHz | Intel Core i7 –  <https://www.amazon.co.uk/Intel-BX80684I79700K-I7-9700K-3-60GHZ-SKT1151-Noir/dp/B07HHN6KBZ/ref=sr_1_3?dchild=1&keywords=Intel+i7-2600+Quad+CPU+3.4+GHz&qid=1635347710&sr=8-3> |
| **Storage / Memory** | | |
| |  | | --- | |  | | RAM | | Hard Drive | |  | | 16 GB DDR3  240 GB Solid State Drive and 1TB HDD | 16gb ram --<https://www.amazon.co.uk/Crucial-CT16G4SFRA266-PC4-21300-SODIMM-260-Pin/dp/B08C4VKYFG/ref=sr_1_1_sspa?dchild=1&keywords=16gb+ddr3+ram&qid=1635347512&sr=8-1-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUFGVjROWldRRTBRV1UmZW5jcnlwdGVkSWQ9QTAxODg0MjIyVTBZUlNHMkdZRkMyJmVuY3J5cHRlZEFkSWQ9QTAzMTgxNDVITVQxTlNPTDZYUFUmd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl>  240gb SSD --<https://www.amazon.co.uk/ADATA-Ultimate-SU630-240GB-Solid/dp/B07KQXKK12/ref=sr_1_4?dchild=1&keywords=240gb%2Bsolid%2Bstate%2Bdrive&qid=1635347630&sr=8-4&th=1>  1tb HDD -- <https://www.amazon.co.uk/Seagate-BarraCuda-Internal-Drive-Cache/dp/B07D99KFPK/ref=sr_1_1_sspa?dchild=1&keywords=1tb+hdd&qid=1635347656&sr=8-1-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEzTUVWWTE1V1ExTkhNJmVuY3J5cHRlZElkPUEwMzM1NDYzM09ITVFMMTlCWlZGMyZlbmNyeXB0ZWRBZElkPUEwMzI0MjQ0QzJYWTBFMFVBVUxTJndpZGdldE5hbWU9c3BfYXRmJmFjdGlvbj1jbGlja1JlZGlyZWN0JmRvTm90TG9nQ2xpY2s9dHJ1ZQ>== |
| **Input/Output** | | |
| |  | | --- | | Keyboard | | Pointing Device | | Monitor | | Speakers | | Network Adapter | |  | |  | | RGB gaming keyboard  RGB gaming mouse  24" Full HD screen  entry level speakers  WIFI | Gaming keyboard -- <https://www.amazon.co.uk/White-Shark-Gladiator-2-Anti-Ghosting-Shock-Proof/dp/B08HDC8YBX/ref=sr_1_1_sspa?dchild=1&keywords=gaming%2Bkeyboard&qid=1635347802&sr=8-1-spons&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEyUEZVUklYREw1MjNVJmVuY3J5cHRlZElkPUEwMzc0MjI0Mkg5TUxDMzBJVjhHTSZlbmNyeXB0ZWRBZElkPUEwOTA1ODYxMzdGM0REOUhIT1hFNCZ3aWRnZXROYW1lPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNrPXRydWU&th=1>  Gaming mouse -- <https://www.amazon.co.uk/White-Shark-Octavius-Adjustable-programmable/dp/B08D9KKQ4S/ref=sr_1_2_sspa?dchild=1&keywords=gaming+mouse&qid=1635347826&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUExQ1U0VUI1NjlRV0QwJmVuY3J5cHRlZElkPUEwOTE3MTQ3MktQRDIwRk1SQjFPNCZlbmNyeXB0ZWRBZElkPUExMDM4MjU5M0JXOEcyVVBZSEpKSCZ3aWRnZXROYW1lPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNrPXRydWU>  Monitor -- <https://www.amazon.co.uk/BenQ-GL2480-Eye-Care-Monitor-Anti-Glare/dp/B07W9LRB2J/ref=sr_1_11?dchild=1&keywords=gaming+monitor+24%22&qid=1635347892&s=computers&sr=1-11>  Speakers -- <https://www.amazon.co.uk/Majority-Speakers-External-Computer-controller/dp/B08DHZ11B9/ref=sr_1_18_sspa?dchild=1&keywords=speakers&qid=1635347922&s=computers&sr=1-18-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUFJV0lSRVUzWE04MkMmZW5jcnlwdGVkSWQ9QTAzOTgwMTUzMlM2NlU1UEJZQ1RDJmVuY3J5cHRlZEFkSWQ9QTA0NDk1ODhLQjdGUjZXNkxRREEmd2lkZ2V0TmFtZT1zcF9idGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl>  Wifi -- <https://www.amazon.co.uk/Wireless-Network-Adapter-Receiver-External/dp/B081Z3JR1V/ref=sr_1_2?crid=2KXC4X7URV53H&dchild=1&keywords=wifi+adapter&qid=1635347948&s=computers&sprefix=wifi+ada%2Ccomputers%2C148&sr=1-2> |
| **Bundled Software**  (Including Operating System) | Windows 10 Home | Windows 10 -- <https://www.amazon.co.uk/Windows-10-Home-64-bit/dp/B08TWW8Q56/ref=sr_1_2_sspa?dchild=1&keywords=windows+10&qid=1635347967&sr=8-2-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUE4VU>  1KUU9RS1M3RlEmZW5jcnlwdGVkSWQ9QTA4NDM3NzBDVFMyV01JQjg0TUQmZW5jcnlwdGVkQWRJZD1BMDkxNjExMzJVSzFJMjlRTlVXMTAmd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl |
| **Total Cost** | 693 https://www.ebay.ie/itm/372422143107?hash=item56b616ec83:g:7ioAAOSwtfNfYvxL | 657 |

**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** |
| I would recommend option A because the friend doesn’t seem to need to do any heavy computing,  Word documents and internet surfing doesn’t require much processing power.  The option A PC is powerful enough to run Minecraft and old valve games like half life.  If they decide later on to play something more demanding like fortnite they can upgrade their GPU and RAM. But for the time being they can save money by buying a less powerful machine. |

**Your Recommend System**

|  |  |
| --- | --- |
|  | Personal Computer  Recommendation |
| **CPU** | 2.2 GHz Intel Celeron 450 |
| **Memory** | |
| |  | | --- | |  | | RAM | | Hard Drive | | SSD Drive | | |  | | --- | |  | | 320 GB Hard Drive | | No SSD | |  | |
| **Input/Output** | |
| |  | | --- | | Keyboard | | Pointing Device | | Screen | | Speakers | | Network Adapter  GPU | | |  | | --- | | USB multifunction keyboard  USB optical mouse | | 20’’ HD flatscreen monitor | | Multimedia Speaker System | | Integrated 10/100/1000 Ethernet | |  | |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Student Name** | **Sebastian** | **Student Number** | **C00263348** |
| **Date** |  | **Checked** |  |
| **Group** | **A / B** | **A** |  |