Lab - Research a Hardware Upgrade (Instructor Version)

**Instructor Note**: Red font color or gray highlights indicate text that appears in the instructor copy only.

# Introduction

Use the Internet, a newspaper, or a local store to gather information about hardware components. Your customer’s computer currently has one module of 2 GB of RAM, a 500 GB hard disk drive, and a PCIe video adapter card with 256 MB of RAM. Your customer wants to be able to play advanced video games.

**Instructor Note**: Check to make sure students have chosen parts that are compatible with the current configuration and meet the needs of the customer.

# Instructions

## Research memory options.

Shop around, and in the table below list the brand, model number, features, and cost for two different 8 GB modules of DDR3.

| Brand and Model Number | Features | Cost |
| --- | --- | --- |
| Kingston KCP316ND8/8 | 8 GB 240-Pin DDR 3 DIMM CAS Latency 11Voltage 1.5V Non-ECC | $64.99 |
| Kingston  KVR16R11S4/8 | 8 GB 240-Pin DDR 3 DIMM Programmable CAS Latency: 11, 10, 9, 8, 7, 6 Voltage 1.5V ECC | $81.41 |

### Question:

Based on your research, which RAM would you select? Be prepared to discuss your decisions regarding the RAM you select.

Type your answers here.

Answers may vary.

## Research hard disk drive options.

Shop around, and in the table below list the brand, model number, features, and cost for a 3 TB 7200 rpm SATA 3 hard disk drive and a 500GB or 1TB solid state drive (SSD).

| Brand and Model Number | Features | Cost |
| --- | --- | --- |
| Seagate ST2000DM006 | 2 TB 7200 RPM 64 MB Cache SATA 3 3.5” | 1TB: $44.99  2TB: $59.99  3TB: 84.99  4TB: 98.15  6TB: 165.99 |
| Western Digital WDS500G2B0A | SATA 3 6 GB/s 2.5" / 7mm  Also need a mounting bracket: 2.5" to 3.5" | 250GB: $52.99  500GB: $79.99  1TB: $144.99 |

### Question:

Based on your research, which hard disk drive would you select? Be prepared to discuss your decisions regarding the hard disk drive you select.

Type your answers here.

Answers may vary.

## Research video adapter card options.

Shop around, and in the table below list the brand, model number, features, and cost for two different PCIe video adapter cards with at least 1 GB of RAM.

| Brand and Model Number | Features | Cost |
| --- | --- | --- |
| XFX Radeon HD6850 | PCIe 2.1  1 GB GDDR5 900 MHz GPU  256-bit Interface  2 x DVI, 1 x HDMI, 1 x DisplayPort | $199.99 |
| PowerColor AXRX 570 4GBD5-3DHD/OC | PCIe 3.0  4 GB GDDR5 1250 MHz GPU  256-bit Interface  3x DisplayPort, 1 x DVI | $144.99 |

### Question:

Based on your research, which video adapter card would you select? Be prepared to discuss your decisions regarding the video adapter card you select.

Type your answers here.

Answers may vary.

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