

# Final Project Requirements

## Directions

You have been selected to develop a GUI application called a “Configurator”. The application allows the user to complete the configuration of a computer system and produce a sales price for the system based on the configuration selected. The application must meet the minimum operating requirements and specifications as provided below:

## Operation

1. The user configures the components of a computer system by selecting items from combo boxes, radio buttons, and check boxes.
2. When the user clicks the Calculate button, the application calculates the prices of the system by adding the cost of each selected component to the base price of the system.
3. An option is provided to the user to clear all entries and begin over.
4. As the systems are configured on the “fly”, the program should update the costs automatically to show the user the impact of adding or changing the basic system (running totals)
5. When the user presses the “order” button, the program should display the current configuration in a dialog box of your choice. The dialog box should show the configuration the user is about to order with pricing and totals. The user must confirm the configuration before the order is processed. When the user confirms the order, the order is processed and the order displayed as processed.
6. When the user closes the frame or presses the Exit button, the application exits.

## Specifications

1. You are free to use whatever layouts and panels you need to design the application. You can also create any classes you think might be helpful to solve and develop this application. In short, you’re the developer and may use all resources available to you. The only requirement is: you must use the Java programming language.
2. There are two base priced computers:
   1. Intel based priced system is $499 and includes the following configuration:
      * Intel® Celeron® processor G1610
      * Memory - 4GB Dual Channel DDR3 1600MHz - 1 DIMMs
      * 125GB 7200RPM SATA 3.0Gb/s Hard Drive
      * CD-Rom Drive
      * Integrated Audio
      * Microsoft Windows 8.1 OS
      * 2 Piece Powered Speaker Set
      * USB Wired Entry Keyboard
      * USB Optical Mouse
   2. AMD based priced system is $599 and includes the following configuration:
      * AMD FX-2100 for Desktops
      * 4GB memory
      * 125GB Hard Drive
      * Integrated 3D Graphics
      * CD-Rom Drive
      * Integrated Audio
      * Microsoft Windows 8.1 OS
      * 2 Piece Powered Speaker Set
      * USB Wired Entry Keyboard
      * USB Optical Mouse
3. For the Intel systems, the user can select from 4 processors.

|  |  |
| --- | --- |
| G1620 2.70GHz | Add $50.00 |
| G1630 2.80GHz | Add $90.00 |
| G1820 2.70GHz | Add $105.00 |
| G1830 2.80GHz | Add $130.00 |

1. For the AMD systems, the user can select from 4 processors.

|  |  |
| --- | --- |
| FX-8350 | Add $25.00 |
| FX-9590 | Add $90.00 |
| FX-4100 | Add $187.00 |
| FX-4300 | Add $280.00 |

1. For both based systems, the user can select from 4 memory configurations.

|  |  |
| --- | --- |
| 6GB | Add $28 |
| 8GB | Add $58 |
| 12GB | Add $108 |
| 16GB | Add $176 |

1. For both based systems, the user can select from 3 hard drive configurations.

|  |  |
| --- | --- |
| 250GB | Add $27 |
| 500GB | Add $50 |
| 1TB | Add $89 |

1. For both based systems, the user can select from 3 optical drive configurations.

|  |  |
| --- | --- |
| DVD Drive | Add $17 |
| Combo DVD/CDRW | Add $40 |
| DVD and CDRW | Add $79 |

1. For both based systems, the user can select from 3 graphic enhancements:

|  |  |
| --- | --- |
| NVIDA GeForce G310 512MB DDR3 | Add $80 |
| NVIDA GeForce GT620 1GB DDR3 | Add $169 |
| NVIDA GeForce GT640 1GB GDDR5 | Add $490 |

1. Using option buttons, the user can select from the following 3 operating systems.

|  |  |
| --- | --- |
| Windows 8.1 (Default) | None |
| Windows 8.1 Pro | Add $59 |
| Linux | Subtract $89 |

1. Using check boxes, the user can select any of the following 4 applications packages.

|  |  |
| --- | --- |
| Microsoft Office Home and Student 2013 | Add $139 |
| Microsoft Office Home & Business 2013 | Add $219 |
| Accounting package | Add $399 |
| Graphics package | Add $499 |

## Hints

* Consider using separate classes to represent each of the system configuration options.
* Use the Internet and Google.
* Start NOW.

## Required Enhancements

1. Include sales tax at the rate of 0.078 in the final price. The sales tax should display separately of total and subtotal costing.
2. Include combined shipping and handling rate of 0.025 based on the total cost in the total price. The shipping and handling should display separately of the total, subtotal and sales tax.
3. Use a minimum of two graphics. The graphics could be used as buttons.
4. Print a summary of the configuration. This can be done to a frame, panel or text area.

## Deliverables

Copy of the source code with screen captures showing the main screen and all dialog boxes generated during the order process.

## Special Note

Remember, you are the developer. You can use all the Java tools presented in the text or on the Internet. Develop your program to your satisfaction under the minimum requirements listed above. You are allowed to seek help ***only*** from your fellow class developers. I encourage the sharing of code, ideas and problems and successes but not completed projects.

Do not procrastinate. You currently have the tools to begin the GUI and start the programming construction.