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| **PROGRAM 5 -Monster Island** | | | **NAME:** |
| **Earned Points** | **Possible Points** | | **Detailed Description** |
|  | **5** | **Compiling / Syntax Errors** | |
|  | | | Compiles with no errors – 5 points  Does not compile – 0 points |
|  | **85** | **Specifications** | |
| **Earned Points** |  | **10** | Source/Header Files: (10 points)   * Main function is in its own source file (Prog5.cpp) * Programmer-defined functions in separate file (functions.cpp) * #include headers, structure definitions and function prototypes are all in header file (Prog5.h) |
|  | **5** | Monsters Text File (5 points)   * Submitted a text file with information on 5 monsters * All data is separated by a pound sign. |
|  | **5** | Structures (5 points)   * Cost Structure * Monsters structure |
|  | **10** | Main Function (10 points)   * Creation of Monsters array (100 elements) * Shows main menu / correct choices * Runs until user chooses option 5 * Validate user choice * Function call statements * saveMonstersToFile if user wants to after choosing option 5 |
|  | **15** | enterMonsters Function (15 points)   * Check if current # of monsters is less than 100, error message if equal to 100. * Menu of two choices * Validate user’s choice   CHOICE 1   * Ask user for filename * Open file as input * Check file for errors * Read from file using getline, while loop (eof) and increment num monsters. * Close file * Confirmation message   CHOICE 2   * Ask user for each piece of data in specified/neat way * Read data from standard input * Place data in Monsters array in correct element. * Choice 2 happens as many times as user wants it to * Confirmation message |
| **Possible Points** | | **Detailed Description** |
|  | **10** | deleteMonster Function (10 points)   * List each monster’s name * Ask user which one they want to delete * Send the name of the one to delete to mAE(), returning a bool if it was removed. * If removed, decrement num monsters * Confirmation message if it was removed or not. |
|  | **5** | moveArrayElements Function (5 points)   * Use for loop to see if string sent in matches any in the array. * If found, for loop to move array elements & return true * If not found, return false |
|  | **15** | printMonsters Function (15 points)   * Menu of two options * Validate user’s choice   CHOICE 1   * Print each monster to the screen * Neat/uses stream manipulators * **BONUS** (5 points) does word wrapping for description   CHOICE 2   * Ask user for filename * Open file as output file * Print each monster to the file * Neat/uses stream manipulators * Close file * Confirmation message |
|  | **5** | printStatistics Function (5 points)   * Cost of each monster per week is printed out with for loop * Total cost of all monsters is printed out |
|  | **5** | saveMonstersToFile Function (5 points)   * Filename is acquired from user * File is opened as output file * Use for loop to print out monsters to file with # between each piece of data * File is closed * Confirmation message |
|  | **10** | **Readability of Code** |  |
|  | | | Sufficient comments in code & naming of variables |
| Includes comment block at top containing title of program, date, author, and purpose of program. |
| Code is indented properly. |
|  | **100** | **TOTAL (FINAL) GRADE** | |