**Computer Programming Project**

**200-250 Points**

**Goal** – You will be creating a program in Visual Basic of your own design. It should be a fresh idea, not the recreation of an existing program. It could be a useful application. (Algebra tutor) It could be a game (Boggle, Connect the dots, etc…). It could be creative (coloring book). The program is only limited by your ability to write code and utilize the various components.

**Step 1 – Come up with an idea**

You must first propose a program to me and get it approved. Your proposal should be word processed, include an initial concept of your form, and provide what your program will do and how you will write code to make the program work. I’m not expecting to have all of the code written, and I’m very confident that subtle changes will be made along the way, but you should be able to explain your logic. I do not want anyone trying to create a program that is outside of their ability level. If you can’t explain to me how the program will work, choose another idea, or adapt the one you have. Your proposal should include:

1. Sample form – Explain what each object on the form will be used form.
2. Detailed description of what your program does.
3. Variables you intend to use and what their purpose will be.
4. Subroutines and logic use within your program.

**Ideas** – You can choose/adapt one of the following or be creative and come up with your own!

Connect the dots game Coloring book Air Force Game Variant

Database program Choose your own adventure Simple RPG

Hangman (One or Two player) Checkers Cards(Memory, Go Fish, Blackjack)

Roulette Grade Calculator (fancy) Statistics Program (sports?)

SuperMaze Cell Phone Address Book Medical History with interactivity

Mad Libs Variation Text – Input/Output Dating Compatibility program

Loan Amortization/Investment Program Mastermind game Vision Test

**Step # 2 – Build your Form**

Once you have approval, now is the time to build the form. You will want this to look as professional as possible. Font, font size, alignment, balance, etc… All of these should factor into your program. You can also create your program from code only, like what we did in previous programs.

**Step # 3 – Declare your variables**

In Microsoft word, keep a list of all variables that you intend to use and what their purpose will be. This is a vital part of your grade because if something doesn’t work and I’m trying to determine what the problem might be when grading, I will need to know what exactly **num1** is supposed to do in your program. Ex: **monsterHealth**

**Step # 4 – Start Coding**

You will each go your own way at this point. Use the apostrophe ( ‘ ) to put comments in your code, not only for yourself, but also for me. If your program doesn’t work and I can’t follow your logic, it will be nearly impossible for me to give credit for inexplicable code.

**Advice**

I want to see a variety of programming structures. I do not want a trivia program with the same redundant code showing different questions. The more objects and programming variety I see, the better your grade will be in the end.

Keep it simple! Don’t overreach. It is very easy to want to build Halo 5, but you simply don’t have the tools or knowledge yet to do so. Make sure your program is achievable.

You are on your own. This assignment is designed for you to test your ability to design and troubleshoot as well as to discover your programming limitations. If you are struggling with the content in the class, pick something that is manageable and achievable. I know most everyone’s ability level and will expect everyone to challenge themselves.