# CIS18A Course Project Part 1:

In Project Part 1, you will create a program for a type of small businesses. The program should incorporate all required elements as listed and described in Chapters 1 – 9. This program is intended to improve business process and operation flow.

**Business Types:**

Select from 1 of the following types of small businesses.

Simple Search Engine

## Program Requirements:

1. Comments: Document your code, program purpose (5 points)
2. Appropriate data type (int, double, long, float…). (10 points)
3. Variables: name and use your variables accordingly, reference the variables, include in blocks. (10 points)
4. Switch statements (20 points):

* Adequate "Options" menu and selection.

1. Loops (If, If-else, While, Do-while, Range-based, for-loop) (20 points).
2. Operators: order precedence, functionality in arithmetic, logical and all parameters (20 points)
3. Class: incorporate at least 2 classes in the program (10 points).
4. Objects and methods: create objects, constructor and use methods to access these objects. (30 points).
5. Arrays: include an array, 1 or more dimension is acceptable. (20 points).
6. Control access to class members: (10 points)
7. Inheritance: allows one class to incorporate another class into its declaration using inheritance. (10 point)
8. Import packages: Include packages to streamline development. (10 points)
9. Implement interfaces: at least more than one interface in the program (20 points).
10. Efficiency and performance: consider design concepts into the program (5 points).

Total: 200 points

## Program Pseudocode and Documentation:

This is just a simple search engine that will most likely not work and It will require me a lot more time and practice and study to be able to make it work. Its purpose or its purpose will be to be a search engine people can trust to keep their searches private and more secure. How you ask? I don’t know yet, there are many components to making a search engine and this will most likely take me months to even make a half decent search engine. I wanted to make a GUI in eclipse so that someone has an space to type in their search using JtextField for a querywindow, JtextArea for a resultwindow, JScrollPane for a resultpane. I also used JmenuBar to display a menu, Jmenu to display menu items, JmenuItem to select items in the menu. JRadioButtonMenuItem as a component within a group of menu items which can be selected and using ButtonGroup so when when button is turned on all the others are turned off. And used insets to make a border.  I also used serialVersionUID which is a universal version identifier for a Serializable class. Deserialization uses this number to ensure that a loaded class corresponds exactly to a serialized object. If no match is found, then an InvalidClassException is thrown. I also used indexers so that my contents can be accessed but not removed.