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CISC-2000-R03

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Final Project

**Description of the Code**

My code reads from a given input file which has names in the form of Last Name, First Name. Then, it prints out the name to the terminal in the form of First Name Last Name avoiding the comma. Next to the name it outputs an ID, and a unique username in the form of “First letter of first name+Last Name.” However, if there are multiple names that would output the same username, then the program will change the username for the students by incrementing a number for every identical username. Therefore, all usernames will be unique.

**Extension**

My code is a modified version of the University Member code. It generates a unique username.

**Here are the new functionalities:**

* +1: Inheritance- class FinalWithNumber : public Final //used a derived class of the Final class to print an unique username
* +1: Friend function- friend ostream& operator<<(ostream& os, const Final& obj); //overloaded<< are commonly friend functions
* +1: Overloading- friend ostream& operator<<(ostream& os, const Final& obj); //reads from the file and prints the info
* +1: New Dynamic objects- Final\* x = nullptr; x = new FinalWithNumber(n); //dynamically allocates memory for a FinalWithNumber
* +1: Copied files to github, under anouribrahim10
  + <https://github.com/anouribrahim10>
  + https://github.com/anouribrahim10/FinalProject

(For the following I am not sure if I earned the point(s))

* +2: New application functionality- unordered\_map<string, int> uCount; //this is a container that stores a collection of key-value pairs where each key is unique

**Below is a picture of an example output of the terminal-**

