ITEC 3150, Homework #5 HashMap

Fall, 2018

Due Date: no later than 11:59 PM on Friday, November 30 ( 10 PM if D2L has maintenance!!!)

Coding standards note: The coding standards are in a document in a D2L module titled Coding Standards. See Grading Criteria for points lost if not followed.

Competencies being graded:

1. Ability to implement a HashMap
2. Ability to populate and print from a HashMap
3. Ability to write items from a HashMap
4. Ability to read an English language problem description and design a multi class solution in Java
5. Ability to follow given coding standards- in D2L content under Coding Standards.

Problem Statement:

Create a program that reads in the Courses objects from either the text file you created in Homework 1. (Yes, you can use the code from previous homeworks) or the binary file from Homework 2. Please make sure to **include ALL FILES NEEDED TO COMPILE** (Course.java, English.java, Math.java, History.java)

Implement your own HashMap implementation. You may use the HashMap example provided in the notes, but you MUST modify it to handle Course bjects only and bring it completely up to coding standards to receive all points. **You MAY NOT use java.util.HashMap or java.util.TreeMap in this problem.**

After reading in the Course objects, store the Course objects into your HashMap implementation using the unique ID as the key to the map rather than storing them in the ArrayList used in Homework 1. Then print the Course objects from the HashMap in a user friendly fashion. You may use iterator or for-each loop-> DO NOT JUST System.out.println THE HASHMAP- ITERATE THROUGH IT. Hint: Modify your toString to get a nice looking output.

Grading Criteria

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| Reads a file | 15 |
| Correctly creates an appropriate HashMap | 20 |
| Correctly adds Course objects to the HashMap with ID as key | 25 |
| Correctly prints the HashMap | 25 |
| Meets coding standards | 15 |