**CSC 1302: PRINCIPLES OF COMPUTER SCIENCE II**

**Lab 7**

**How to Submit**

Please submit your answers to the lab instructor once you have completed.

Failure to submit will result in a **ZERO FOR THIS LAB. NO EXCEPTIONS**.

Consider the following client class:

**import** java.util.Collection;

**import** java.util.Collections;

**import** java.util.HashMap;

**import** java.util.Map;

**import** java.util.Set;

**public** **class** PresidentsMain {

**public** **static** **void** main(String[] args) {

Map<String, String> PresidentsOfTheUnitedStates = **new** HashMap<String, String>();

PresidentsOfTheUnitedStates.put("George Washington", "Unaffiliated");

PresidentsOfTheUnitedStates.put("John Adams", "Federalist");

PresidentsOfTheUnitedStates.put("Thomas Jefferson", "Democratic-Republican");

PresidentsOfTheUnitedStates.put("James Madison", "Democratic-Republican");

PresidentsOfTheUnitedStates.put("James Monroe", "Democratic-Republican");

PresidentsOfTheUnitedStates.put("John Quincy Adams", "Democratic-Republican");

PresidentsOfTheUnitedStates.put("Andrew Jackson", "Democratic");

PresidentsOfTheUnitedStates.put("Martin Van Buren", "Democratic");

PresidentsOfTheUnitedStates.put("William Henry Harrison", "Whig");

PresidentsOfTheUnitedStates.put("John Tyler", "Whig");

}

}

}

Extend given client class:

* Implement a static method called FilterMapByValue, that takes 2 parameters:
  + Map<String, String> InMap;
  + String TargetValue;

Method should print out all map elements, for which Value == TargetValue. Test the implementation by filtering PresidentsOfTheUnitedStates map so that only presidents, affiliated with Democratic-Republican party are printed. Note: use the following to iterate over a map:

for (Map.Entry<String,String> Entry : InMap.entrySet())

* Implement a method PrintValues, that prints all values for a given map (use map’s values() function). Test the implementation on PresidentsOfTheUnitedStates map.
* Implement a method PrintKeys, that prints all keys for a given map (use map’s keySet() function). Test the implementation on PresidentsOfTheUnitedStates map.