**Assisted Practice: 2.4 Map**

This section will guide you to:

* Create a Java project in your IDE
* Write a program in Java to create maps

This lab has three subsections, namely:

2.4.1 Writing a program in Java to verify implementations of maps

2.4.2 Executing the program and verifying it is working

2.4.3 Pushing the code to your GitHub repositories

**Step 2.4.1:** Writing a program in Java to verify implementations of maps

There are two ways you can perform this step; you can create a new Java project, or you can create a new Java class in the existing project. It is preferable to create a new Java class in the existing project but feel free to explore the first option. The steps mentioned below will work once you create a project in Java.

* Open Eclipse
* *[Right click]* on the **src** folder of the project
* Select *New* -> *Java Class* -> Enter the filename (follow camelCasing)
* Execute the code below resolving the warning and errors due compatibility-related issues

**import** java.util.\*;

**public** **class** mapDemo {

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

// map

//Hashmap

HashMap<Integer,String> hm=**new** HashMap<Integer,String>();

hm.put(1,"Tim");

hm.put(2,"Mary");

hm.put(3,"Catie");

System.***out***.println("\nThe elements of Hashmap are ");

**for**(Map.Entry m:hm.entrySet()){

System.***out***.println(m.getKey()+" "+m.getValue());

}

//HashTable

Hashtable<Integer,String> ht=**new** Hashtable<Integer,String>();

ht.put(4,"Ales");

ht.put(5,"Rosy");

ht.put(6,"Jack");

ht.put(7,"John");

System.***out***.println("\nThe elements of HashTable are ");

**for**(Map.Entry n:ht.entrySet()){

System.***out***.println(n.getKey()+" "+n.getValue());

}

//TreeMap

TreeMap<Integer,String> map=**new** TreeMap<Integer,String>();

map.put(8,"Annie");

map.put(9,"Carlotte");

map.put(10,"Catie");

System.***out***.println("\nThe elements of TreeMap are ");

**for**(Map.Entry l:map.entrySet()){

System.***out***.println(l.getKey()+" "+l.getValue());

}

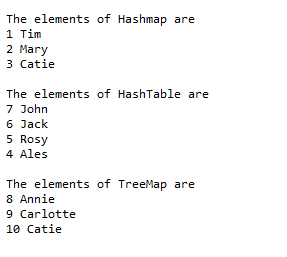
}

}

**Step 2.4.2:** Executing the program and verifying it is working

Before you execute the program, check for syntactical corrections. If no errors are found, follow the steps mentioned below:

* ***[Right click]*** in the program space
* Select *Run As Java Application*



**Step 2.4.3:** Pushing the code to your GitHub repositories

* Open your command prompt and navigate to the folder where you have created your files.

**cd <folder path>**

* Initialize your repository using the following command:

**git init**

* Add all the files to your git repository using the following command:

**git add .**

* Commit the changes using the following command:

**git commit . -m “Changes have been committed.”**

* Push the files to the folder you initially created using the following command:

**git push -u origin master**