No.Hands-on AssignmentTopics CoveredStatus1

Modify all the List programs you have done earlier with Generics

Generics

**SET**

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| **No.** | **Hands-on Assignment** | **Topics Covered** | **Status** |
| 1 | Develop a java class with a instance variable Country HashSet (H1) add a method saveCountryNames(String CountryName) , the method should add the passed country to a HashSet (H1) and return the added HashSet(H1).  Develop a method getCountry(String CountryName) which iterates through the HashSet and returns the country if exist else return null.  NOTE: You can test the methods using a main method. | Set HashSet |  |
| 2 | Write a program to store a group of employee names into a HashSet, retrieve the elements one by one using an Iterator. | Set HashSet |  |
| 3 | Create Collection called TreeSet which is capable of storing String objects. The Collection should have the following capabilities  a)Reverse the elements of the Collection  b)Iterate the elements of the TreeSet  c) Checked if a particular element exists or not | Set TreeSet |  |
| 4 | Implement the assignment 1 using TreeSet | Set TreeSet |  |

**MAP**

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| **No.** | **Hands-on Assignment** | **Topics Covered** | **Status** |
| 1 | 1. Develop a java class with a instance variable CountryMap HashMap (M1) add a method saveCountryCapital(String CountryName, String capital) , the method should add the passed country and capital as key/value in the map M1 and return the Map (M1).  Key- Country Value - Capital  India Delhi  Japan Tokyo  2. Develop a method getCapital(String CountryName) which returns the capital for the country passed from the Map M1 created in step 1.  3. Develop a method getCountry(String capitalName) which returns the country for the capital name passed from the Map M1 created in step 1.  4. Develop a method which iterates through the map M1 and creates another map M2 with Capital as the key and value as Country and returns the Map M2.  Key – Capital Value – Country  Delhi India  Tokyo Japan  5. Develop a method which iterates through the map M1 and creates an ArrayList with all the Country names stored as keys. This method should return the ArrayList.  NOTE: You can test the methods using a main method. | Map HashMap |  |
| 2 | Create a Collection called HashMap which is capable of storing String objects. The program should have the following abilities  a) Check if a particular key exists or not  b) Check if a particular value exists or not  c) Use Iterator to loop through the map key set | Map HashMap |  |
| 3 | Write a program that will have a Properties class which is capable of storing some States of India and their Capital. Use an Iterator to list all the elements of the Properties. | Map HashTable Properties |  |
| 4 | Write a program to create a HashMap to store name and phone number (Telephone book). When name is given, we can get back the corresponding phone number. | Map HashMap |  |
| 5 | Implement the assignment 1 using TreeMap | Map TreeMap |  |
| 6 | Implement the assignment 1 using HashTable | Map HashTable |  |

**Project 1**