**Assignment no-5**

1)Write a Employee class and their properties?

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| --- |
|  |
| class detail { |
|  | int id; |
|  | String name; |
|  | String department; |
|  | int salary; |
|  | public detail(int id, String name, String department, int salary){ |
|  | this.id = id; |
|  | this.name = name; |
|  | this.department = department; |
|  | this.salary = salary; |
|  | } |
|  | public String DisplayId(){ |
|  | return ("The id of " + name + " is: " + id); |
|  | } |
|  | public String DisplaySal(){ |
|  | return ("The salary of" + name + " is: " + salary); |
|  | } |
|  | public String DisplayDep(){ |
|  | return ("Department of " + name + " is: " + department); |
|  | } |
|  | } |
|  | public class generics { |
|  | public static void main(String[] args) { |
|  | HashSet<detail> Employee = new HashSet<>(); |
|  | detail E1 = new detail(01,"Pranjal","IT",3000 ); |
|  | detail E2 = new detail(02,"Harsh", "It", 5000); |
|  | detail E3 = new detail(03,"Abhi", "IT",8000); |
|  | detail E4 = new detail(04,"Rohan", "IT",3000); |
|  | detail E5 = new detail(05,"Harish","IT",7000); |
|  |  |
|  | Employee.add(E1); |
|  | Employee.add(E2); |
|  | Employee.add(E3); |
|  | Employee.add(E4); |
|  | Employee.add(E5); |
|  |  |
|  | for (detail d : Employee){ |
|  | // System.out.println(d.id + " " + d.name + " " + d.department + " " + d.salary); |
|  | System.out.println(d.DisplayId()); |
|  | System.out.println(d.DisplaySal()); |
|  | System.out.println(d.DisplayDep()); |
|  | } |
|  | } |
|  | } |
|  |  |

2)Print the datastore –

|  |
| --- |
| import java.util.HashMap; |
|  | import java.util.Map; |
|  |  |
|  | public class generics2 { |
|  | public static void main(String[] args) { |
|  | HashMap<Integer, Double> hash = new HashMap<>(); |
|  | hash.put(0, 7.5); |
|  | hash.put(1, 7.2); |
|  | hash.put(2, 7.1); |
|  | hash.put(3, 7.3); |
|  | hash.put(4, 7.4); |
|  | hash.put(5, 7.6); |
|  | hash.put(6, 7.7); |
|  | hash.put(7, 7.8); |
|  | hash.put(8, 7.9); |
|  | hash.put(9, 7.0); |
|  |  |
|  | for (Map.Entry k: hash.entrySet()){ |
|  | System.out.println(k.getKey() + " " + k.getValue()); |
|  | } |
|  | // System.out.println(hash); |
|  | } |
|  | } |

3)Write a generic methods to exchange the position the of array element?

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|  |
| import java.util.ArrayList; |
|  |  |
|  | public class generics3 { |
|  | public static void main(String[] args) { |
|  | ArrayList<Integer> arrayList = new ArrayList<>(); |
|  | arrayList.add(54); |
|  | arrayList.add(65); |
|  | arrayList.add(78); |
|  | arrayList.add(99); |
|  | arrayList.add(76); |
|  | arrayList.add(2,104); |
|  | arrayList.add(5,666); |
|  | for (int i = 0; i < arrayList.size(); i++){ |
|  | System.out.println(arrayList.get(i)); |
|  | } |
|  | // System.out.println(arrayList); |
|  | } |
|  | } |
|  |  |

4)Design class name and perform the operation-

a)

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|  |
| class pair{ |
|  | String num; |
|  | String name; |
|  | public pair(String num, String name){ |
|  | this.num = num; |
|  | this.name = name; |
|  | } |
|  | public String pairkey(String num){ |
|  | return num; |
|  | } |
|  | public String pairvalue(String name){ |
|  | return name; |
|  | } |
|  | } |
|  | public class generics4 { |
|  | public static void main(String[] args) { |
|  | HashMap<Integer, pair> hashMap = new HashMap<>(); |
|  | Scanner sc = new Scanner(System.in); |
|  |  |
|  | pair p = new pair("654","Pranjal"); |
|  | hashMap.put(1,p); |
|  | for (Map.Entry<Integer, pair> entry: hashMap.entrySet()){ |
|  | int key = entry.getKey(); |
|  | pair value = entry.getValue(); |
|  | System.out.println(key + " Details: "); |
|  | System.out.println(value.num + " " + value.name); |
|  | } |
|  | } |
|  | } |
|  |  |

b)

|  |
| --- |
| class pair1{ |
|  | String msg; |
|  | Date date; |
|  | public pair1(String msg, Date date){ |
|  | this.msg = msg; |
|  | this.date = date; |
|  | } |
|  | public String Message(String msg){ |
|  | return this.msg; |
|  | } |
|  | public Date getDate(int date){ |
|  | return this.date; |
|  | } |
|  | } |
|  |  |
|  | public class generics4 { |
|  | public static void main(String[] args) { |
|  | HashMap<Integer, pair> hashMap = new HashMap<>(); |
|  | Scanner sc = new Scanner(System.in); |
|  |  |
|  | HashMap<String, pair1> hashMap1 = new HashMap<>(); |
|  | java.util.Date date = new java.util.Date(); |
|  | pair1 p2 = new pair1("Today's Date is: ", date); |
|  | hashMap1.put("Hey",p2); |
|  | for (Map.Entry<String, pair1> entry : hashMap1.entrySet()){ |
|  | String key = entry.getKey(); |
|  | pair1 value = entry.getValue(); |
|  | System.out.println(key); |
|  | System.out.println(value.msg + " " + value.date); |
|  | } |
|  | } |
|  | } |