**1. package** emp;

**public** **class** employee {

**int** id,salary;

String name,department;

**public** employee(**int** id,**int** salary,String name,String department)

{

**this**.id=id;

**this**.salary=salary;

**this**.name=name;

**this**.department=department;

}

**public** **int** getId() {

**return** id;

}

**public** **void** setId(**int** id) {

**this**.id = id;

}

**public** **int** getSalary() {

**return** salary;

}

**public** **void** setSalary(**int** salary) {

**this**.salary = salary;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

**public** String getDepartment() {

**return** department;

}

**public** **void** setDepartment(String department) {

**this**.department = department;

}

**public** **void** displayDetails()

{

System.***out***.println("id : "+getId()+" salary: "+getSalary()+" name:

"+getName()+" department: "+getDepartment());

}

}

**public** **class** hashset {

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

{

Set<employee> set=**new** HashSet<>();

employee emp=**new** employee(1, 20000 , "Joy", "marketing");

set.add(emp);

emp.displayDetails();

}}

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

**public** **class** Hashmap {

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

{

Map<Integer,Double> map=**new** HashMap<>();

map.put(34, 33.9);

map.put(67, 67.7);

map.put(96, 56.7);

map.put(35, 3.5);

map.put(11, 33.9);

map.put(25, 5.9);

map.put(99, 89.8);

map.put(56, 23.5);

map.put(84, 98.5);

map.put(54, 87.6);

Set<Map.Entry<Integer, Double>> set = map.entrySet();

Iterator<Map.Entry<Integer, Double>> itr = set.iterator();

**while**(itr.hasNext()) {

Map.Entry e = itr.next();

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

}

}

}

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

**public** **class** Array\_swap {

**public** **static** **final** <T> **void** swap(T[] a,**int** i, **int** j){

T t = a[i];

a[i] = a[j];

a[j] = t;

}

**public** **static** **final** <T> **void** swap(List <T> l , **int** i, **int** j) {

Collections.<T> *swap*(l,i,j);

}

**public** **static** **void** test() {

String[] a = {"Apple","Bottle","Aeroplane"};

*swap*(a, 0 ,1);

System.***out***.println("a:"+Arrays.*toString*(a));

List<String> l =**new** ArrayList<String>(Arrays.*asList*(a));

*swap*(l, 0 ,1);

System.***out***.println("l:" + l);

}

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

*test*();

}

}

**4. a. import** java.util.\*;

**public** **class** pair {

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

{

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

map.put("Hi", "8");

map.put("hello", "9");

System.***out***.println(map);

}

}

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

**public** **class** pair1 {

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

{

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

map.put("Today is", **new** java.util.Date());

System.***out***.println(map);

}}