## Collection Exercises

- 1. Create a new list and populate it with the days of the week. Lastly, print the out the list.
- 2. Create a new list and populate it with the days of the week. Lastly, iterate through the list and print out each element separately.
- 3. Create a new list and populate it with the days of the week excluding THURSDAY. Lastly, insert the weekday THURSDAY into the right position in the list.
- 4. Create a new list and populate it with the days of the week. Then create a new list out of the first three elements of the first list using a subList.
- 5. Create a new hashset and populate it with the days of the week. Lastly, print the set out and pay attention to the order of the elements.
- 6. Create a new hashSet and populate it with the days of the week. Then convert the hashSet to an arrayList.
- 7. Create a new hashSet and populate it with random names. Then convert the hashSet to an arrayList. Lastly, manually sort the list in alphabetical order and print it out.
- 8. Create a new hashSet and populate it with random names. Lasty, sort the names in alphabetical order using only a Set or a child of Set.
- 9. Create a new hashMap of type <Integer,String> and populate it with elements containing an id(Integer) and a car brand(String). Lastly, print out the entire hashMap.
- 10. Create a new hashMap of type <Integer,String> and populate it with elements containing an id(Integer) and a car brand(String). Lastly, print out only the keys.
- 11. Create a new hashMap of type <Integer,String> and populate it with elements containing an id(Integer) and a car brand(String). Lastly, print out only the values.
- 12. Create a new class and call it Car. Add fields for Id,Brand and Model + getters and setters Create a new hashMap of type <Integer,Car> and populate it with elements containing an id(Integer) and a car object(Car). Lastly, print out only the car's brand.

## Challenges

- 1. Create an empty set and populate it with the all the days of the week. Next create a second set and populate it with ONLY the weekend days (SATURDAY and SUNDAY). Lastly, compare the two sets and retain in the first set only those days that are the same in both sets.
- 2. Create a new hashMap of types <String,String> and populate it with elements containing an email (String) and a name (String). Next, create a new Set and populate it with the keys from the hashMap you created.
- 3. Create a new class and call it SuperHero. Add fields for Id,Name and Age + getters and setters. Have the class implement the Comparable interface. Implement the override method and have it compare the AGE of the superhero. Next, create a new arrayList of type SuperHero. Sort the list by age and print out each element.
- 4. Create an array of type int with numbers: {1,4,4,2,6,7}. Next, create an appropriate Collection and populate it with the content of the int array. Lastly, print out each element in the Collection without duplicates.