

- 1) Given a `TreeMap<Long, Contact>` which has phone numbers for keys and contact objects for values.

Write solutions to

- a. Fetch all the keys and print them,
- b. Fetch all the values and print them
- c. Print all key-value pairs

Note:

a) Contacts should be stored in descending order of phone number

b) Contact Class:

- PhoneNumber: `<long>`
- Name: `<String>`
- Email: `<String>`
- Gender: `<Enum>`

- 2) Write an application to store 10 unique product objects. In case there is an attempt to add a duplicate product, it should be silently rejected. Hint: **Use** `HashSet` or `TreeSet`

Extra(optional): Use `ArrayList` in the above solution. (This is optional)

- 3) Store at least 10 Employee Objects in an `TreeSet<Employee>`. When the application runs the user should be asked to select one of the options upon which you will print the employee details in a sorted manner.

For E.g.

Run Application:

- a) ID
- b) Name
- c) Department
- d) Salary

Your choice: b

<Should print all the employee's details sorted by name>

- 4) Given a `LinkedList` of Objects representing date of birth's (use any inbuilt java class to represent date), print the date's along with the message: Your date of Birth is DD-MM-YYYY, and it (was or was not) a leap year.

E.g.

- a) For the date 23-12-2000

Your date of birth is 23-12-2000 and it **was** a leap year

c) For the date 23-12-2001

Your date of birth is 23-12-2000 and it **was not** a leap year

Note: You need to access the Dates in the reverse order. I.e. start from the last object and move towards the first object