National University of computer and emerging sciences

CS-2001 Data Structures SE

Assignment 1(Total Marks: 100)

Due Date: 11:59 PM 26th, Sept 2021

INSTRUCTIONS

- Zero marks will be awarded to the students involved in plagiarism.
- All the submissions will be done on google classroom.
- You have to submit zip folder containing all .java files. The name of the folder should be named after course section and roll number. i.e. CS2001_Section_RollNO
- Naming convention must be followed strictly.
- No late submissions will be entertained in any case.
- Assignment should be implemented in java

Telephone Directory System

A telephone book system, also known as a telephone directory, telephone address book, or Phone book, is a listing of telephone subscribers in a geographical area or subscribers to services provided by the organization that publishes the directory. Its purpose is to allow the telephone number of a subscriber identified by name and address to be found. The features of telephone book system are mainly related to adding, listing, searching, sorting, modifying and deleting telephone directory-related records. Here we are going to create a java application for Telephone directory system.

- **Contact module**: This module allows the user to enter all the details like auto-generated ID, name, phone number, city, country, residential address, website, mobile, company, and date of birth
- **Insert record**: In this module, all the details regarding contacts are inserted.
- **Delete record**: In this module, the records with a specific id or name are deleted.
- **View records**: This module allows the user to view a specific contact detail.
- **Update record:** This module is responsible for updating
    - First name of the user
    - Second name of the user
- **Sort record**: Sort the records in the ascending order of the ID and by name. Sort all persons in the phone directory ascending based on person first name. (Note: use bubble or selection sort to arrange the entire phone directory)

- **Search record**: This module allows to search for the contact details by just entering its name. Search for an input name and print their address and phone number. (Note: use binary search to find all telephones for the given first name)
- **Recent Birthdays**: Shows the recent birthdays of the contacts.