

# Indian Institute of Technology, Kharagpur

## *Department of Computer Science and Engineering*

### Assignments 1 & 2 – Java Programming, Spring 2015-16

Software Engineering (CS 29006)

Assignment	Assign Date	Submission Deadline:
#1	12-Jan-2016	23:55 hrs, 27-Jan-2016
#2	12-Jan-2016	23:55 hrs, 03-Feb-2016

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#### Grading guidelines:

1. *Zero marks for a submission if it does not pass the plagiarism test.*
  2. *Break-up of Credits will be as follows:*
    - (a) *Percentage of features implemented: 70%*
    - (b) *Aesthetics: 10%*
    - (c) *Whether reasonably able to answer questions: 20%*
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#### Assignment #1

1. **Short Term Course Management:** IIT Kharagpur offers up to 10 short-term courses each year. Each course has a course name, course fee, date on which it starts and the duration (up to 2 weeks). Each course has a faculty as the course coordinator and a set of (up to 5) faculty as the instructors. Each faculty has a Department to which he is affiliated, his name, address, mobile number, and e-mail address. Up to 5 participants are allowed to register for each course. Each participant has a name, address, mobile number, organization name, and e-mail address. You should be able to create course lists and display them initially for 1 year.
  - (a) It should be possible to create courses and display all course. [5]
  - (b) It should be possible to create participants for a course and display all participants registered for a course when requested. [5]
  - (c) It should be possible to delete or alter details of specific courses, faculty, or participants. [5]
  - (d) It should be possible to save all entered data in a file and later read them to reconstruct the courses, participants, etc. [5]
2. **Contact List:** You have a set of acquaintances. The acquaintances are of various types. At the moment the types of acquaintances to be supported are: relatives, personal friends, professional friends, and casual acquaintances. For all acquaintances, you need to remember the name, mobile number, and e-mail. For relatives, you would be interested to remember the birth day and the date of last meeting. For professional friends, you would like to remember the specific common professional interests (100 chars max). For personal friends, you would like to remember the context (100 chars max) and date in which acquainted, and specific events that need to be noted (100 chars max). For casual acquaintances, you would like to remember when, where (100 chars max), and in what circumstances (100 chars max) met, and any other useful information (100 chars max). You should be able to perform the following:
  - (a) Create and delete various types of acquaintances. [5]
  - (b) Display the entire list of acquaintances. [5]
  - (c) Display the list of specific category of acquaintances. [1]
  - (d) Store all created acquaintances in hard disk as a file and read them later from the file. [4]
  - (e) Search a given name from the acquaintance list. [5]

## Assignment #2

3. **Short Term Course Management (More):** Refer to Problem 1 in Assignment #1. Extend your implementation to support the following:
  - (a) Create course lists and display them for a 5 year period. [5]
  - (b) Develop appropriate Swing interface for the Short Term Course Management software. [15]
4. **Contact List (More):** Refer to Problem 2 in Assignment #1. Extend your implementation to support the following:
  - (a) Develop an appropriate Swing interface for the contact list. [15]
  - (b) Develop an applet interface for the contact list for accessing through a web browser. [10]
5. **Digital Photo Album:** You should be load up to 10 pictures into your photo album. You should be able to assign each photo a title (up to 20 chars) and annotation of up to 100 chars. You should be able to display photos one by one. Also, from the displayed titles of photos, a click on a title should display the corresponding photo. [15]