



Design Based Experiment No-2

Advanced Java Programming – Even Semester 2013-14

Handout Date: 25/2/2014

Duration: 3-4 weeks

Submission Date: 17/3/2014

Presentation dates: 20/3/2014

Total Marks: 10

Instructions to students:

- You can make use of the library resources to find information.
- Present the relevant references /citation at the end of the report.
- Marks will be awarded for the content written in your own words.
- If two or more documents (different group) contain duplicate information marks will be deducted as per plagiarism policy.

Note: This is a group activity based design experiment; any request of working alone will not be acceptable. (You will learn the working in a team, team management and leadership skills)

Objective:

The aim of this design experiment is to give the students an overview of Advanced Object Oriented Programming techniques during the application development process.

Learning Outcomes: At the ends you will be able to

1. Understand the meaning of analyze the problem.
2. Identify and define the requirements for the applications keep “Software Engineering Models” concepts in mind.
3. Analyze and design a computer-based solution to a clearly defined problem using object oriented techniques
4. Apply design and development principles in the construction of software systems of varying complexity.

Tasks: Read the following scenario, understands and present your response for the tasks assigned in a documented for not more than 10 pages.

Note: Use appropriate tools Java Platform and databases as appropriate (*Any other tool like designing in word will not be acceptable and student will be given zero marks*)

Description of the Scenario

“Result Generating System”

Amity University is the leading University in India achieved many milestones. Once day University management decided to use client server based service to generate students result. And therefore, few students of computer science and engineering were called and discussed this matter. The discussion was held on several points but the student’s team reached to the following conclusions.

1. The team decided to develop RMI based service system to fulfill the need of the University.
2. As university decided to generate the result based on the following category
 - a) Distinction.
 - b) First Class.
 - c) Second Class.
 - d) Fail

And above all they want to display these result on the client machine from where the request is coming.

3. The officer at exam cell said we will provide the students marks to the developer team in the file.

Based on the above narration, do the following tasks:

Develop an RMI based application, which should reads a file with list of marks provided from the exam cell of student from a client, send it to server and find how many students having distinction, first class, second class and fail and display the result on client side.

- | | | |
|---------------|---|----------------|
| Task-1 | Create an interface and declare an appropriate method to perform the marks calculation for generating the result according to the client demand | 1 Mark |
| Task-2 | Implement the method declare in Task -1 | 2 Marks |
| Task-3 | Write a server program to fulfill the requirement as discussed above. | 4 Marks |
| Task-4 | Write a client program where access the students marks file provided by the exam cell to check students result | 3 Marks |

Sample Output:

----- studentdetails.txt -----

Arun 45 56 74 68

Rishi 88 85 96 92

Sngeeta 41 42 51 52

Arun 62 53 62 48

Ankur 35 38 41 40

name is: Arun

Obtained marks are:

Marks of subject 0 is 45.0

Marks of subject 1 is 56.0

Marks of subject 2 is 74.0

Marks of subject 3 is 68.0

Arun has Firstclass

name is: Rishi

Obtained marks are:

Marks of subject 0 is 88.0

Marks of subject 1 is 85.0

Marks of subject 2 is 96.0

Marks of subject 3 is 92.0

Rishi has Distinction

name is: Sangeeta

Obtained marks are:

Marks of subject 0 is 41.0

Marks of subject 1 is 42.0

Marks of subject 2 is 51.0

Marks of subject 3 is 52.0

Sangeeta has passcalss

name is: Ankur

Obtained marks are:

Marks of subject 0 is 62.0

Marks of subject 1 is 53.0

Marks of subject 2 is 62.0

Marks of subject 3 is 48.0

Ankur has secondclass

name is: hari

Obtained marks are:

Marks of subject 0 is 35.0

Marks of subject 1 is 38.0

Marks of subject 2 is 41.0

Marks of subject 3 is 40.0

Hari has fail

Instruction:

- Answer all the given questions/tasks.
- One consolidated report should be submitted from each student.
- The report should contain the following:
 - Title Page (includes Title of the design experiment, Names of the student, Student ID, Department Name, Semester Name, Academic Year)
 - Table of Contents (Topics covers and page number)
 - Answer for tasks given.
 - References (book, journals, internet resources used in preparing the presentation report/slides or others)
- Student has to submit the report to the e-mail ID provided also.
- Each individual will have one presentation schedule and should be present, unless due to illness. Otherwise, no marks will be awarded to the absent student. The absent candidate will be scheduled for another presentation and should present the whole case study.

Guidelines

Follow the guidelines mentioned below for your case study.

- Reports/answers should be **typed** by group members and individual should be clear about each part of the report and should be ready to answer for question (s) asked at the time of presentation.
- **Handwritten report will not be accepted**
- The report should have a Title Page. Title Page should contain the following information.
 - ❖ Subject Name and Subject Code
 - ❖ Student name
 - ❖ Student ID
 - ❖ Department Name
 - ❖ Semester Name
 - ❖ Academic year
- It should have Table of Contents
- Use page numbers when you are preparing a report.
- Limit the number of points in presentation slides to **4** points per page.
- Presentation report should be typed in your own words using **Times New Roman font size 12.**
- Presentation report heading should be with **Font Size 14, Bold, Underline**
- Use caption for each diagram with diagram number.
- Library and internet resources can be used for finding information.
- Marks will be awarded for the content written in your own words.
- Copy paste from the Internet is strictly not acceptable.
- Reference should be included in the last page as follows
 - Author name, Book Title, Publisher, Year in case of books
 - In case of web site references type the full path of the web page with referenced date
 - In case of magazines/ periodicals type article name, magazine name, Issue Number and date

Rules & Regulations

- If any topic or diagram of report is found copied from the other then marks will be deducted from both reports.
- The purpose of design experiment is to do some brain storming so you can consult books in Library or use internet or computer magazines or any other source.



Design Experiment and Presentation
Advanced Java Programming Even Semester 2014

Evaluation Grid

Deliverables	0	1	2	3-4	5	Marks
Task-1	Incomplete/ Weak/Plagiarized work	Partially answer without presentation	Partial answer and presentation is ok	Satisfactory	Complete and accurate in all aspects	
Deliverables	0	1	2	3-4	5	Marks
Task-2	Incomplete/ Weak/Plagiarized work	Partially correct without appropriate definition of operations	Partially correct but not in all aspects	Satisfactory	Complete and accurate in all aspects	
Total Marks Obtained						

**** Marks will totally depend on your performance in the presentation of each task. Just providing the answer will not give any benefits to you.**

**** Any students fail to come for presentation will be awarded zero marks.**

Date of submission and presentation_____

S No	Student Id	Student Name	Total Marks Scored out of 10	Penalty	Final Mark obtained
1					

Signature of Faculty