

CSE215 Lab: Project Specification

Suppose, you are developing a website management system using java tailored for small businesses to manage product inventory, customer records, and transaction history. The system will allow business owners to:

- Add, update, and delete product information.
- Maintain a customer database with personal and transaction details.
- Generate invoices and provide discounts based on predefined criteria.

You need to maintain the following requirements during project development.

- At least four classes are required (1 super class and 3 sub classes) - 15 points
- Create at minimum two different packages and use those - 5 points
- In your class design you must have to have the reflection of the concept of Encapsulation, Custom method overloading, Custom method overriding, and Abstraction (using interface). - 20 points

[In terms of using method overriding you need to do some mathematical calculations say giving a certain amount as a discount or bonus]
- Exception must be handled for any abnormal/exceptional cases. At least 1 custom exception must be there. - 10 points
- You need to demonstrate your project specific task for example- showing employee bonus or total salary or company revenue or invoice generation in case of developing employee management system ————10 points
- You have to use text/binary file in terms of storing the data. - 10 points
- Make user interface using either java FX or Swing - 10 points
- Project report including introduction, methodology, class UML diagram, uses, limitations, and conclusion (max 2-3 pages) — 20 points
- Viva ————— to earn above mentioned marks

General Guideline:

- Plagiarism of any form is highly discouraged. In terms of any cheating/copying from any source either online or offline you will get no marks. You must have a clear understanding of how you developed the project.
- During viva you will be asked questions on the entire project. If you couldn't answer any part of the project you will lose that portion of marks.
- At the day of project submission, you need to submit your project softcopy/source code (in canvas) also a project report hardcopy (printed) written in MS word with details about your project and hand over it to me during the project demonstration. In project report don't print the code; only the mentioned details about your project.
- Make sure no individual/group will have the same topic for the project. In that case, project will be rejected and no marks will be given.

N:B: You **can't make project on the following topic: Library/Pharmacy/Hospital/Employee/ATM/Bank/ Bus/Air/ Rail etc. management system, calculator, and any type of game. Also you can not choose any online available project topic.**