

Database Application Project Proposal Guidelines

CCINFOM

Developing a Database System requires the group to submit a project proposal for approval by Week 3 of the trimester. Approval of the proposal will span from Week 03 to Week 04 in preparation for the official start of the project development period from Week 09-12, although student groups are highly encouraged to make early preparations before Week 09-12 to avoid piling up requirements typical during Week 10-12. This document is a proposal guideline and not the project's full specification (expectations).

Deadline of Submission: May 24, 2025 (Sa), 4:00 PM

Late Submissions will result in a deduction in the project grade of 5 points per day of late submission; a fraction of a day is considered a whole day.

Proposal Document: Created in Google Docs, Arial 10 in all texts, default margin

Document Sections:

Section 1.0 Group Composition

Section 2.0 Why is this Database System important to be developed

Section 3.0 Records Management

Section 4.0 Transactions

Section 5.0 Reports to be Generated

Key components of the Database System Development project

1. Design of an appropriate and correct database to meet the records management and report requirements of the project
2. Design and develop the application in Java that correctly and completely implements the project's records management and report requirements.

Proposal Requirements

1. The proposal must have a background (one paragraph, maximum of 5 lines) that explains why this Database System is needed and that using Excel will not be enough to help users with their data requirements.
2. There should be at least two (2) records that should be managed in the Database System. Each group member should be assigned at least one (1) record with its corresponding set of record management functions. Record management means adding a new record, updating an existing record, deleting an existing record, viewing a record, listing records (that can be filtered using a set of fields), and viewing a record & the related other records. In the proposal, the itemized data within each record will have to be enumerated, as shown in the example below:

Example:

Product Record Management	(product code, product name, description, quantity in stock, discontinued)	assigned to group member 1
Customer Record Management	(customer number, last name, first name, first engagement date)	assigned to group member 2
Sales Representative Record Management	(sales rep number, last name, first name, branch code, quota, active)	assigned to group member 3
Branch Record Management	(branch code, branch name, address)	assigned to group member 4

Also list the specific outputs for “viewing a record & the related other records”. Here are some examples:

- Viewing of a specific product record and the list of customers who bought the product
- Viewing a customer record and the list of products they bought
- Viewing a branch record and the list of active sales representative

In the proposal, it should be indicated as:

Product Record Management	(product code, product name, description, quantity in stock, discontinued) Including viewing of a specific product record and the list of customers who bought the product	assigned to group member 1
Customer Record Management	(customer number, last name, first name, first engagement date) Including viewing a customer and the list of products they bought	assigned to group member 2
Branch Record Management	(branch code, branch name, address) Including viewing a branch record and the list of active sales representative	assigned to group member 4

3. There should be at least two (2) transactions that can be performed in the Database System. Each group member should have at least one (1) transaction to develop. Transactions differ from records management because they combine data operations on several records.

Example:

Selling of Product as a Transaction will involve the following data, operations assigned to group member 2

- a. Reading the record of the customer buying to check if the customer is still allowed to buy products
- b. Reading the records of products that can be sold (e.g., products that are not yet zeroed in quantity)
- c. Recording the sales record with the total amount sold, the sales representative that facilitated the sales, among others
- d. Recording the products sold in the sale with the quantity sold and price given
- e. Updating the product record to deduct the quantity sold

In the proposal, the operations within the transaction will have to be enumerated, and the group member assigned to develop the transaction. Performing transactions will require the development of additional tables aside from the core ones specified in records management. Identification of transaction tables is not yet required in the database application proposal to be submitted.

Reminder: Ensure that you have the necessary core records to be able to perform the proposed transactions.

4. At least (2) reports should be generated, combining and aggregating data from at least two records. At least one (1) report must be assigned to each group member. Imperatively, reports always have a *time* dimension (e.g., Report per *Month* and *Year*, Report per *Year*, Report per *Day*) that will be asked from the user before the report is generated. Reports are different from listings. Data for listing are operating on records managed, and data for reports are extracted from transactions.

Example:

Sales Report	(total and average sales amount) per day, for a given Year and Month	assigned to group member 3
Customer Engagement Report	(number and total amount of sales transactions) per customer for a given Year and Month	assigned to group member 4

Reminder: Ensure that you have the necessary data to be able to produce the proposed reports.