

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: September 20, 2024, 8:30-9:00 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 four (4) records that should be managed in the Database System. Each record management must be assigned to a group member. 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.

Table with 4 columns: Example, Record Management, Fields, and Assigned To. Rows include Product Record Management, Customer Record Management, Sales Representative Record Management, and Branch Record Management.

- For "viewing a record & the related other records," examples could be
- 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:

Table with 4 columns: Record Management, Fields, Description, and Assigned To. Rows include Product Record Management, Customer Record Management, and Branch Record Management.

- 3. There should be four (4) transactions that can be performed in the Database System. 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 itemized operations within the transaction will have to be enumerated, and the group member assigned to develop the transaction.

- 4. Four (4) reports should be generated, combining and aggregating data from at least two records. Each 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 (number and total amount of sales transactions) Report per customer for a given Year and Month, assigned to group member 4