**Project Design Phase-II**

**Project Development Phase**

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| **Date** | 04 Nov 2023 |
| **Team Id** | **NM2023TMID02492** |
| **Project Name** | Cosmetics Store Management |

Considering a functional feature related to customer registration. The objective is to implement a feature where a new customer can register in the system. The code should be well-structured, readable, and reusable.

public class CustomerRegistration {

// Functional Feature: Customer Registration

public static void registerNewCustomer(String firstName, String lastName, String email, String address) {

try {

// Check if the provided email is unique and not already registered

if (!isEmailRegistered(email)) {

// Create a new Customer record

Customer\_\_c newCustomer = new Customer\_\_c();

newCustomer.FirstName\_\_c = firstName;

newCustomer.LastName\_\_c = lastName;

newCustomer.Email\_\_c = email;

newCustomer.Address\_\_c = address;

// Insert the new customer record into the database

insert newCustomer;

System.debug('Customer Registration Successful: ' + newCustomer.Id);

} else {

System.debug('Customer Registration Failed: Email already in use.');

throw new Exception('Email already in use.');

}

} catch (Exception e) {

System.debug('Error during Customer Registration: ' + e.getMessage());

}

}

// Check if the provided email is already registered

private static Boolean isEmailRegistered(String email) {

Integer existingCustomerCount = [SELECT COUNT() FROM Customer\_\_c WHERE Email\_\_c = :email];

return existingCustomerCount > 0;

}

}

1. The functional feature is Customer Registration, which allows a new customer to register in the system.
2. The code is well-structured, readable, and reusable, making it easy to understand and maintain.
3. We use an algorithm to check if the provided email is already registered, which ensures optimal memory utilization.
4. Debugging and traceability are performed using the **System.debug** statements to log registration success and failure.
5. Exception handling is used to catch and handle exceptions, such as when the provided email is already registered.