



Karunya INSTITUTE OF TECHNOLOGY AND SCIENCES

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A CHRISTIAN MINORITY RESIDENTIAL INSTITUTION

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END SEMESTER EXAMINATION (NOV 2021)

Subject: SOFTWARE ENGINEERING LAB

Date: 8/11/2021

Subject Code: 20CS2050

Time: 11:00 AM- 12:45 PM

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CLOTH SHOP MANAGEMENT SYSTEM

OBJECTIVE:

The Objective of this Experiment is to draw the Class diagram for the project Cloth Shop Management System and COCOMO model manual calculation for semidetached model along with website validation.

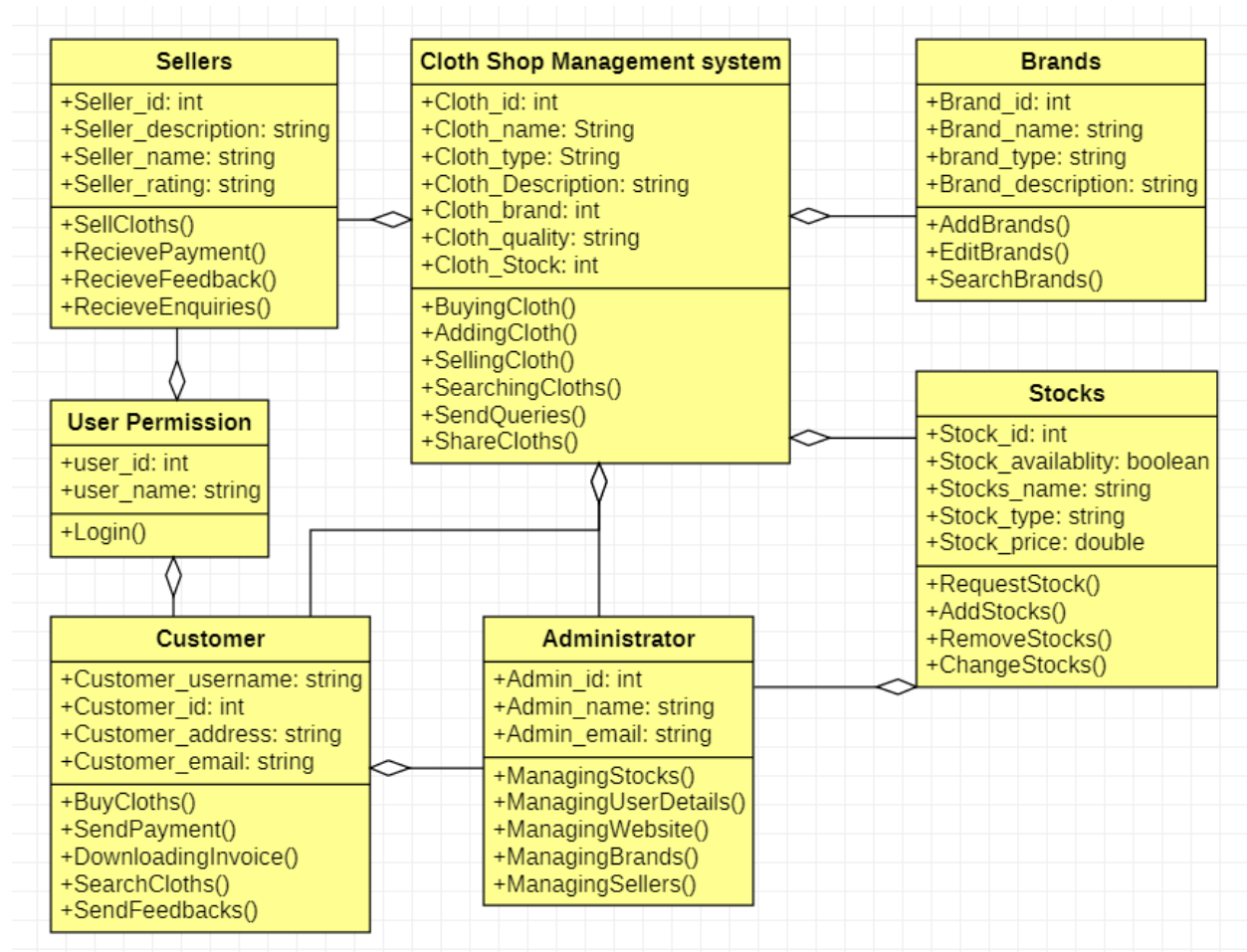
DESCRIPTION OF THE PROJECT MODULE (300 words):

The description of this class diagram states that the class diagram is for Cloth shop management system where the System has large number of cloths for user and sellers to buy and sell from any point of the world. It has Administrator who has in charge of managing user's, sellers, admins, accounts. This system will have been providing a minimalist User Interface for better user experience around each and every part of the website. The class diagram for this Cloth shop management system is drawn along with the COCOMO model manual calculation and Website validation.

PART 1 – SPECIFIED DIAGRAM:

CLASS DIAGRAM:

CLOTH SHOP MANAGEMENT SYSTEM



This Class diagram of this cloth shop management system indicates there is seven classes are available to sell, buy, search clothes. Here it all begins with the user level permission, After the permission granted the user can redirect to the user Interface, the admin will be redirect to the admin dashboard and the seller will gone through the seller Interface respectively.

PART 2- CALCULATION/TESTING:

MANUAL CALCULATION:

$$\text{Effort} = a * \text{KLOC}^b = 3 * 3^{1.12}$$

$$\text{Effort} = 10.268$$

$$\text{Duration} = c * \text{effort}^d = 2.5 * 10.268^{0.35} = 2.5 * 2.2595$$

$$\text{Duration} = 5.648$$

$$\text{Staffing} = \text{effort} / \text{duration}$$

$$\text{Staffing} = 1.81$$

WEBSITE VALIDATAION:

YOUR BASIC COCOMO RESULTS!!								
MODE	"A" variable	"B" variable	"C" variable	"D" variable	KLOC	EFFORT, (in person/months)	DURATION, (in months)	STAFFING, (recommended)
semi- detached	3	1.12	2.5	0.35	3	10.26826480453278	5.648901209585753	1.8177455090041796

Explanation: The coefficients are set according to the project mode selected on the previous page, (as per Boehm,81). The final estimates are determined in the following manner:

effort = $a * \text{KLOC}^b$, in person/months, with KLOC = lines of code, (in the thousands), and:


duration = $c * \text{effort}^d$, finally:

staffing = $\text{effort} / \text{duration}$

For further reading, see Boehm, "Software Engineering Economics", (81)

WARNING: If you see "NaN" in any field above, you have entered an **INVALID** value for KLOC!! Hit the "BACK" button on your browser, hit the "RESET" button, and enter a **DECIMAL NUMBER** in the KLOC input text box!

Thank you, and happy software engineering!



Gmeet video link of the screen recording:

Video Explanation Start Time: 12:00pm

Video Explanation End Time: 12:03pm

RESULT:

As a result, the Class diagram and COCOMO model manual calculation and website validation was carried out successfully.