MIDTERM EXAM ODD SEMESTER ACADEMIC YEAR 2021/2022
STUDY PROGRAM INFORMATION SYSTEM
FACULTY OF ENGINEERING AND INFORMATICS
UNIVERSITAS MULTIMEDIA NUSANTARA

Subject	:	Visual Programming (LAB)	Date	:	
Lecturer(s)	:	Rudi Sutomo,S.Kom.,M.Si.,M.Kom.	Time	:	
Form	:	~~Essay~~ / Project	Type	:	Onsite / ~~Takehome~~

EXAM CONDITIONS / INSTRUCTIONS:
Please answer the following questions clearly and meaningfully. Answers are collected in PDF format with the name [NIM_NAME_CLASS].pdf.

COURSE SUB LEARNING OUTCOMES (SUB-CLO):

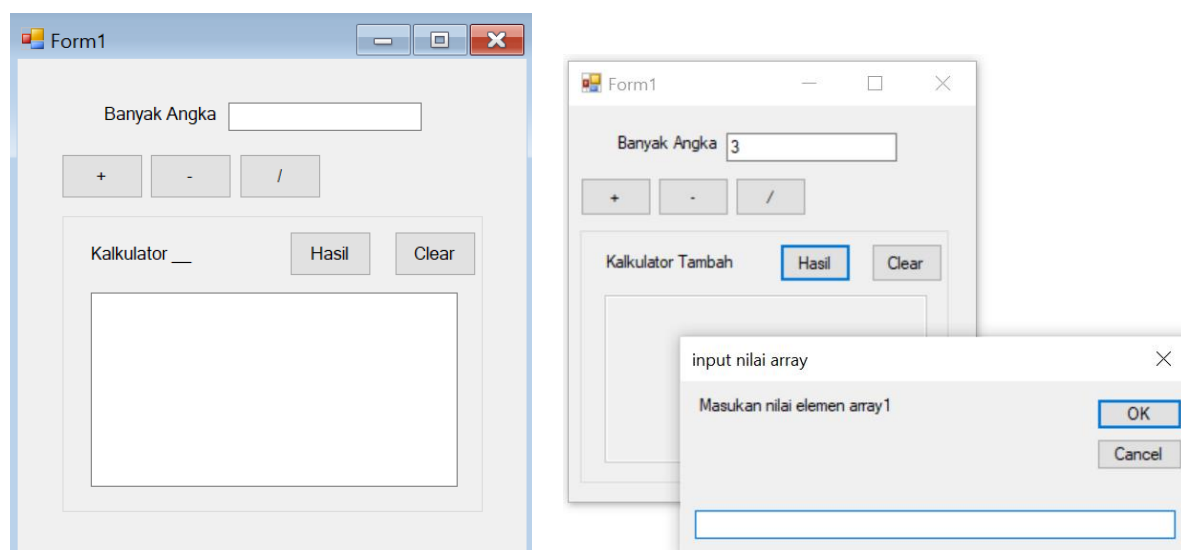| SUB LEARNING OUTCOMES (SUB-CLO)		ELO
Code	**Description**	
CLO1-Sub-CLO1	Students understand concepts and terminology in .Net technology (C2)	ELO B
CLO2-Sub-CLO2	Students understand the concept of control, selection, looping (C2)	ELO G
CLO2-Sub-CLO3	Students implement the concept of class, objects in program making (C3	ELO G
CLO3-Sub-CLO4	Students implement the concept of method and instance variables in program development (C3)	ELO H
CLO3-Sub-CLO5	Students implement the concept of method functions and procedures in program making (C3)	ELO H

PROBLEM/QUESTIONS:

1. Question 1: Sub-CLO 1,2, Weight (40%)

Make a Calculator application that can add, multiply and divide. On The calculator uses an array to store input numbers that can be determined. The following are the conditions for the application that must be made:
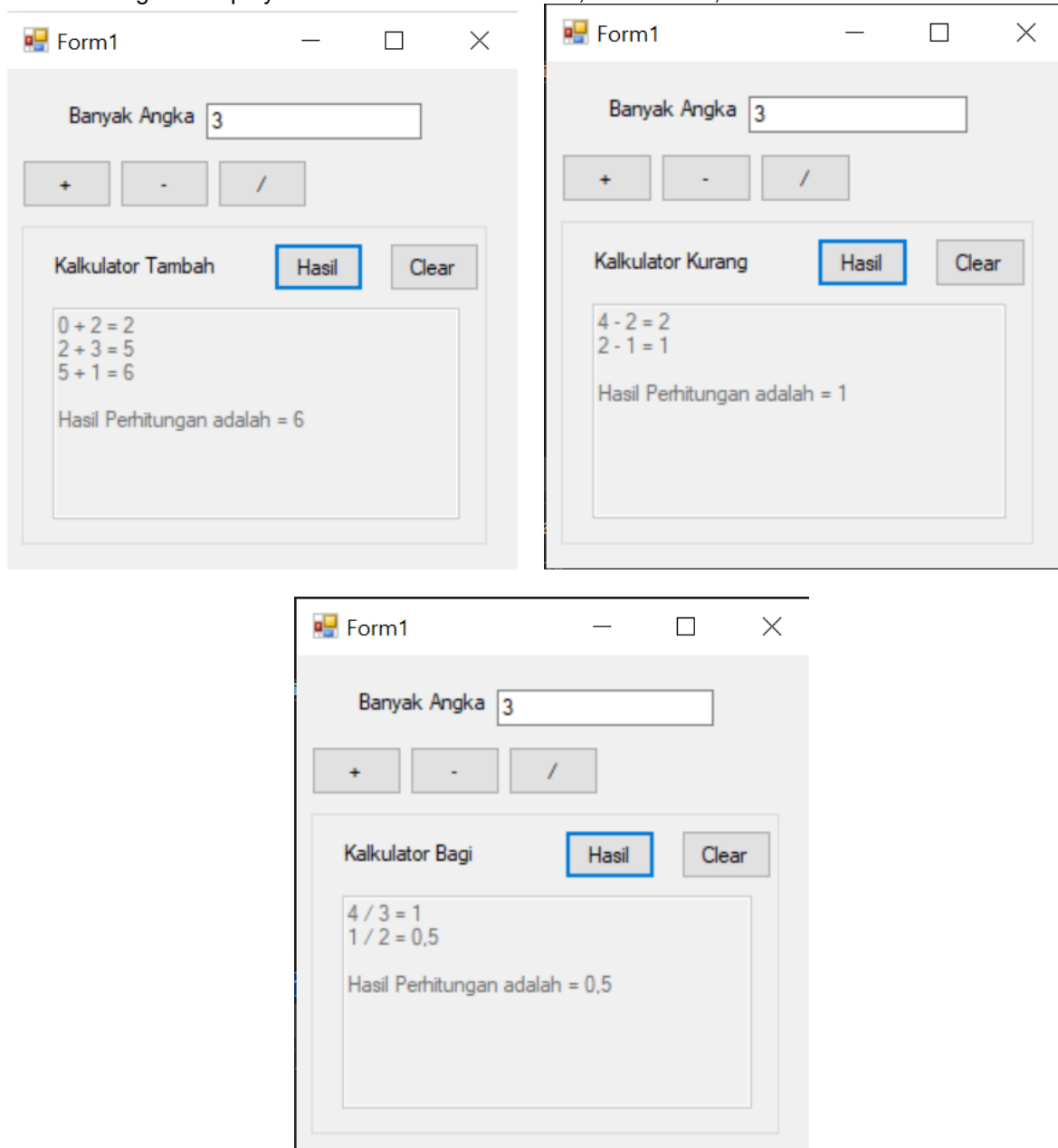
a. The application can enter many numbers using the InputBox according to the input (using an array).

b. If + is clicked, then the label "calculator __" changes to "Calculator Add", If - is clicked, then the label "calculator __" changes to "Calculator Less", If \ is clicked, then the label "calculator __" changes to "calculator for",

c. There are 3 classes, namely: Count Add, Calculate Subtract, Count Divide. Class it is to do the calculations.

d. Shows the calculation process shown in the textbox.

e. If the clear button is clicked then all text boxes will be empty again

The following is an overview of the application that will be made:

The following is a display of the results of the addition, Subtraction, and division calculations:

ASSESSMENT RUBRIC (per question):

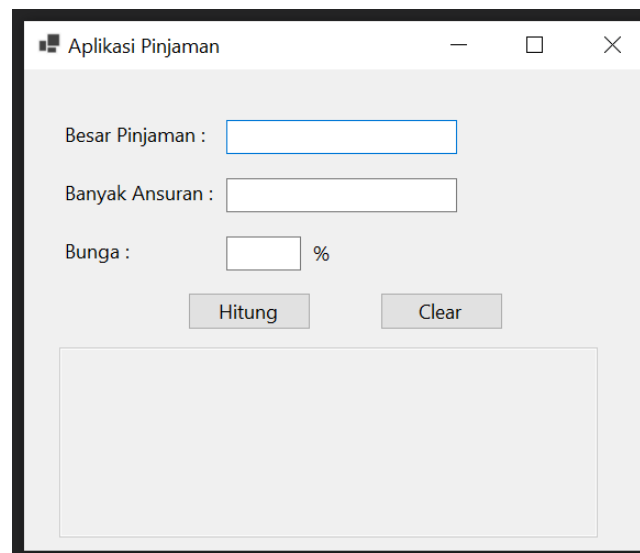| Rated aspect	Assessment criteria				
	Very Poor	**Poor**	**Satisfactory**	**Good**	**Excellent**
	< 45	**45-54**	**55-69**	**70-84**	**(Score ≥ 85)**
	Invalid Project	The program runs but no processes or functions are running	The program runs but the process or function is running but only part of it	The program runs but all processes or functions are running but there are still bugs	The program runs but the processes or functions that run all and smoothly

2. **Question 2: Sub-CLO 3,4,5, Weight (60%)**

Make a loan application that calculates the balance of the loan that must be paid every month and the balance of the loan including the interest. Make an app with create 2 methods:
- Monthly Payment Method: This method accepts interest input, total loan and installment amount
- PrintLoan Method: In this Method Displays the remaining loan that must be paid.
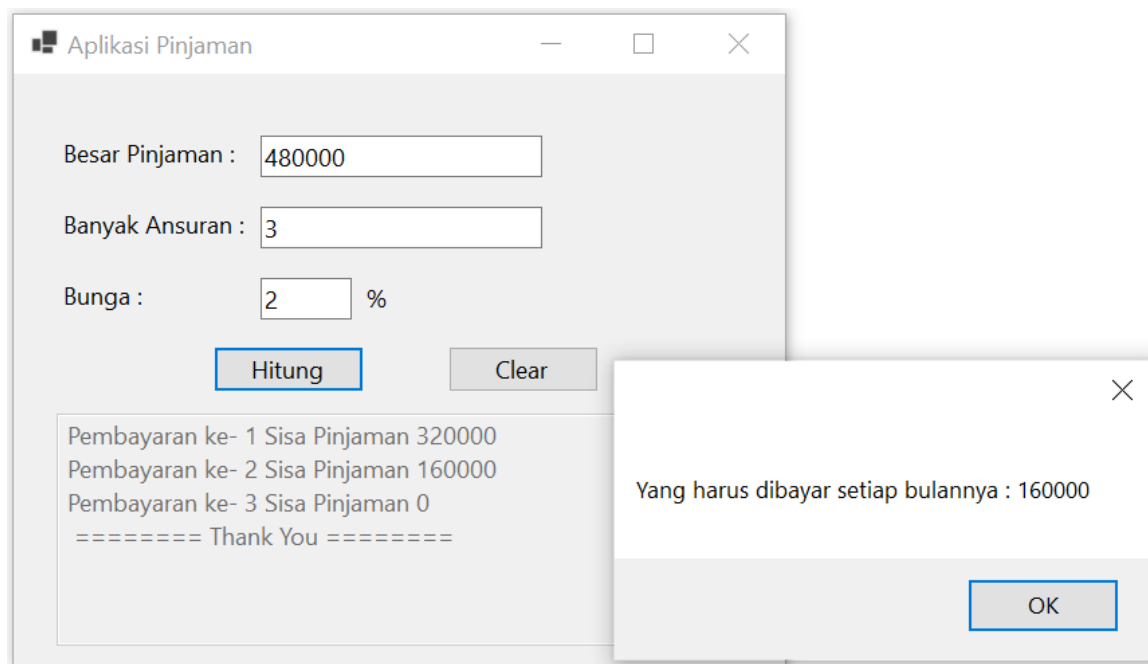
Displays a message box to show how much will be paid each month.

The following is an overview of the Loan Program

Program results :

ASSESSMENT RUBRIC (per question):

Rated aspect	Assessment criteria				
	Very Poor	**Poor**	**Satisfactory**	**Good**	**Excellent**
	< 45	**45-54**	**55-69**	**70-84**	**(Score ≥ 85)**
	Invalid answer	2 out of 3 criteria do not match	1 of 3 criteria does not match	3 criteria are answered correctly but there are parts that are slightly inappropriate	Can make project programming well and perfect

References:	Created by:	Approved by:
Material Week 1-7	**on behalf of the Lecturer Team**	
	(Rudi Sutomo,S.Kom.,M.Si.,M.Kom.)	**(Ririn Ikana Desanti, S.Kom., M.Kom.)**
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