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LA - 95

Personal Report

Assurance of Learning\_Algorithm and Programming

This documentation will explain about the program flow of ‘Bee Bank’ Transaction System, along with the assumptions and validations in the program.

The program starts with an welcome text and menu selection display. There would be two types of transaction that the customer can make, deposit and planned saving. Then the customer would be prompted to input their selection, along with a validation to make sure that the chosen option is valid. Each type of transaction will be explained below:

1. Deposit

Deposit is a type of saving with bigger interest rate than normal saving but the customer can’t withdraw their money for a period of time that they have set themselves.

Firstly, the customer would be asked to input the amount of money that they want to deposit. We make an assumption that the deposited money should be at least Rp 1.000.000, 00

Secondly, we assume that Bee Bank has an deposit annual interest rate of 5%.

Thirdly, the customer would be prompted to input their deposit period, with a minimal of 1 month.

Fourthly, the system would calculate interest and total amount of money in per month according to this formula

100% - 20% is the percentage of profit that has been deducted by the deposit tax percentage of 20%. According to government regulations that 20% tax for deposit storage.

Lastly, the system would display the monthly report of interest gain and amount of money, then save the monthly data to a file so customer can check their deposit record.

The deposit calculation will be simulated below:

Deposited Amount: Rp 1.500.000  
Annual Interest Rate: 5%  
Duration (in months): 3 months

|  |  |  |
| --- | --- | --- |
| Month | Monthly Interest Gain | Total Amount |
| 0 | - | Rp 1.500.000 |
| 1 | Rp 5.000,- | Rp 1.505.000 |
| 2 | Rp 5.016,- | Rp 1.510.016 |
| 3 | Rp 5.033,- | Rp 1.515.049 |

1. Planned Saving

Planned saving is a type of saving where the customer would send a fixed amount of money every month with an increasing interest rate based on saving amount and duration.

The table for interest rate is shown as below:

|  |  |  |  |
| --- | --- | --- | --- |
| Monthly Routine | Deposit Interest rate per year (floating), can change at any time | | |
| >1 to < 3years | 3 to < 5years | 5 to < 10years |
| < 1.000.000 | 1% | 1.2% | 1.5% |
| >= 1.000.000 | 1.2% | 1.5% | 1.7% |

Firstly, the user would be prompted to input their saving title. Validation is made to ensure that the length of the title is between 5 to 30 characters.

Secondly, the user would be prompted to input their monthly saving routine. The minimal amount is Rp 100.000,00.

Thirdly, the user would be prompted to input the duration period. The minimum duration is 1 year (12 months).

Fourthly, the user would be prompted to input their autodebit date, with assumption that it can be only from date 1 – 28. (28 was chosen just to make it convenient for month February, which only has 28 days)

Fifth, the system will calculate the monthly interest and track the saving according to the following formula

Lastly the system will display the saving record and save the record to a file.

The planned saving calculation will be simulated below:

Saving Title: For Car  
Monthly Amount: Rp 1.500.000  
Duration: 14 months  
Autodebit Date: 1

|  |  |  |
| --- | --- | --- |
| Month | Interest | Total Amount |
| 1 | Rp 15000 | Rp 1.515.000 |
| 2 | Rp 15000 | Rp 3.030.000 |
| … | … | … |
| 13 | Rp 18000 | Rp 19.698.000 |
| 14 | Rp 18000 | Rp 21.216.000 |

After customer has done the transaction, they will be given a choice to whether they want to make another transaction or not. If the customer doesn’t do any other transaction the program would display thank you page and closed.