

Please note that my repo is : <https://bitbucket.org/kadeembestteaches/basic-javascript/src/master/>

You have been contracted as a web programmer to develop a loan calculator web application for a Bank. The loan calculator must allow any user using the web application to generate their monthly payments for a given loan amount based on a given annual interest rate.

Your Loan Calculator Web Application **MUST ONLY** allow the user to enter the following data, via a web form:-

- **Loan Amount**
- **Loan term(years)**

Please note that the Annual Interest Rate of the bank is (5%)- This should be fixed and the user should not be allowed to change this value.

After the user enters the aforementioned data and click on the button titled “Calculate”, the web application would then calculate the user Monthly Loan payment

The web application would then be required to lastly print out the following information below the web form . See information to be displayed :

- **Loan Amount**
- **Annual Interest Rate**
- **Loan term(in months)**
- **Monthly Payments**

The calculations for calculating the monthly loan payments are as follows:

1. Get user loan amount
 - a. If the user enter 5000. Then 5000 becomes the user loan amount.
2. Find the number of payments required on the loan.
 - a. This is done by taking the value that the user entered in the “**Loan term field (years)**” and multiplying it by 12.
 - b. For Example, if the user entered 5 as the Loan term, then the number of payments required would be 60 (5×12).
3. Calculate the monthly interest.
 - a. This is done by dividing the annual interest rate by 12.
 - b. For example if the user entered 5 as the annual interest then the monthly interest would be $((5/100)/12)$ this would equal to 0.00416
4. Add 1 to the monthly interest rate just calculated

- a. For example if the monthly interest rate was 0.00416, adding 1 to it would be it 1.00416
5. Raise the above sum(1.00416) using a negative exponent of the number of loan payments required .
 - a. For example if you have to make 60 loan payments, you raise 1.00416 to the power of - 60.
 - This is done by writing this line of code “ **Math.pow(1.00416 , -60)** “. This should equal to 0.779205.
6. Subtract your above answer from 1
 - a. For example, $1 - (1.00416 \text{ to the power } -60)$. This should equal to 0.2207946
7. Multiply your monthly interest rate by the loan amount
 - a. The user monthly interest rate for this example is 0.00416 and their loan amount is 5000, thus $5000 * 0.00416$ would equal to 20.8333
8. Produce your monthly instalments by, dividing the above answer from $[1 - (1.00416 \text{ to the power } -60)]$.
 - a. For example $20.8333 / 0.2207946$ which would equal to 94.36

GUIDLINES:

1. Develop an HTML page that will contain the relevant text boxes to capture the data.
3. You must create an external Javascript file that will provide all the functionality stated above.
4. When displayed, the monthly instalments should be displayed in red text. This must be done through Javascript.
5. Your app should look like the below

Simple Loan Calculator

The Simple Loan Calculator will determine your estimated payments for different loan amounts, interest rates and terms.

Simple Loan Calculator

1 Loan Amount

\$ 5000

3 Number of Years

5

Calculate

Your Monthly Payments

Base Calculations

Loan Amount	Interest Rates	Number of Years	Monthly Payments
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