* Can calculate loan payments for fixed-rate loans.
* Can calculate loans for terms of 15 or 30 years.
* Can determine the total loan value as the result of the home’s purchase price, the amount of down payment, and an origination fee of one percent added to the initial loan amount. Additionally, a fee of $2500 for approximate taxes and closing costs on the sale should be included in the total loan amount.
* Can display the equity percentage and value of the home owned by the buyer at inception based on purchase price, market value of home and down payment values.
* Loan insurance will be required on any loan where the total equity at inception is less than 10% of the current market value of the home (for example, buyer is opening a $450,000 loan but only paying $32,000 in a down payment, and the total market value of the home is $429,500, then the buyer needs to cover the 20,500 deficit between loan amount and home value, plus cover at least 10% of the total loan (45,000), so at least $65,500 down (10% + deficit in home value vs.Â loan value) would be required to avoid paying Loan Insurance).
  + The calculation for loan insurance is 1 percent of the initial loan value per year, split into equal payments per year.
* Additional amounts are gathered for yearly HOA fees, this should be calculated for a monthly total based on the yearly fee divided per payment period, and then added to the base payment.
* Additional amounts are gathered for Escrow (insurance and taxes). Assume property tax is 1.25 percent yearly split into monthly payments and homeowners insurance is 0.75 percent yearly split into monthly payments, both based off of the current market value of the home at the time of loan inception. As with HOA fees, compute a payment per term period (most likely - monthly) and then add that payment to the total monthly payment value
* Can determine if the payment is >= 25% of the buyer’s monthly income and use that value to recommend approving or denying the loan. Deny when >=25%, otherwise approve.
* When the recommendation is to deny, display messages to suggest Placing more money down and Look at buying a more affordable home.
* Monthly payments should have the following attributes
  + Base Amount for the loan (principle and interest)
  + Escrow amount:
    - Homeowner’s Insurance
    - Property Tax (1.1% of total home value by year, collected monthly)
  + HOA Fees (if any, by year, collected monthly)
  + Loan Insurance (if applicable), at 1% of the initial loan value per year

Payment = P \* (r / n) \* [(1 + r / n)^n(t)] / [(1 + r / n)^n(t) - 1]

P: Principle (loan amount)  
r: Annual Interest Rate  
n: Number of payments per year  
t: Term (number of years for the loan)