# Use Case 1

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| A screenshot of a computer  AI-generated content may be incorrect. | A screenshot of a computer  AI-generated content may be incorrect. |
| For this use case I used real-time data from a house I plan on purchasing. The results of my test came out positive and it gave me an accurate monthly mortgage payment based on my inputs. Based on a $200,000 home with $10,000 as a down payment, the application gave me a loan amount of $190,000. I then inputted the loan years, interest rate, taxes, insurance, PMI, and HOA fees into the entry fields, and it returned a correct monthly payment. To the right there is a picture of an amortization schedule to show my monthly payment breakdown throughout the 30-year loan term. | |

# Use Case 2

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|  | A screenshot of a computer  AI-generated content may be incorrect. |
| In this data set I decided to use real-time data from a house my parents are buying. The results came out positive without any errors as it gave me my proper monthly mortgage payment and atomization schedule as well. This was based on a $600,000 home and a $120,000 down payment. When entering the down payment, the loan amount by itself updated and gave me the loan amount of $480,000. Based on other factors such as property taxes, insurance, etc. I got a monthly mortgage payment of $3,165.74. I also got a proper atomization schedule to show the breakdown and how long until the interest was paid off. | |

# Use Case 3

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| A screenshot of a home loan application  AI-generated content may be incorrect. |  |
| In this final use case I decided to use data from the house my parents are selling. They are selling for a base home price of $485,000 and we are basing the down payment off a conventional 20% of the home price. This brought the down payment to $97,000 and a final loan amount of $388,000. Based on other made-up factors such as property tax, home insurance, etc. we got a final monthly mortgage payment of $2,824.53. After checking with other mortgage estimators on lender sites I was able to determine that the information and program was correct and is ready for use by other users. | |