

P8 Programming Assignment

Mortgage Calculator API

Using a language and framework of your choice, build a BC mortgage calculator API.

Input

- property price
- down payment
- annual interest rate
- amortization period (5 year increments between 5 and 30 years)
- payment schedule (accelerated bi-weekly, bi-weekly, monthly)

Expected Output

- payment per payment schedule
- an error if the inputs are not valid. This includes cases where the down payment is not large enough.

Mortgage Payment Formula

$$M = P \frac{r(1+r)^n}{(1+r)^n - 1}$$

M = payment per payment schedule

P = principal

r = per payment schedule interest rate, calculated by dividing the annual interest rate by the number of payments per annum

n = total number of payments over the amortization period

Notes

1. Testing is required and can be done using any framework of your choice.
2. For bonus points, build a user interface that communicates with the API.