Marika Witt

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Requirements Specifications

The user is looking to buy a home. Our program must take in the amount of the loan, the number of years it needs to be paid off in, and interest rate of the particular city they would like to live in out of the options given. Our program will calculate the monthly payment required using differential equations. It must also convert between currencies. It will then output all this information to a text file so the user can make an informed decision. One assumption is that interest is compounded continuously. Another assumption is that the user would like to live in one of five cities.

We have five classes, one for each city we provide: Seattle, Boring, Toronto, Tokyo, and Paramaribo. Our private variables in each class are double interestrate, double loan, int numyears, and double monthlypayment. Our public functions are void setinterestrate(), double getinterestrate(), double calculatemonthlypayment(double loan, double interestrate, int numyears), and double convertcurrency().