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Mini-Project 3 Design

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First I define all my needed components. In my app I used 1 Jframe, 1 Jbutton, 5 Jtextfields, and 5 Jlabels. In the tutorial I watched it said its best to have the app be non static so I call a method called LoanCalculator() in my main method. In the LoanCalculator method I set the size and layout of the Jframe where all of my components will reside. I define the locations of all components using setBounds(). I wanted two of the Jtextfields to display the calculation output so I used setEditable(fasle). Then add all my components to the Jframe.

After the UI was set I added an ActionEvent to be triggered when the button was pressed. When the button is pressed the function would get the input from the fields relating to the interest, the number of years, and the amount of the loan. Then convert the strings to integers then used the equation below to calculate the monthly pay of the loan. From that I calculated the total pay by multiplying the monthly pay by the number of months, and converted both to strings. Then set the monthlyPayField to monthlyPayString and totalPayField to totalPayString.

i ∗ A

1−(1+ i)-n

where *i* = periodic interest rate, *A* = amount of loan, *n* = number of compounding periods (12).

One design aspect I highly considered was to create an listArray of the components names then loop through the array adding each value to the frame. I decided against this I wanted to just keep this app simple and easy to read and I wasn’t sure if this was actually worth it. I thought about was how you could create your own classes building these comments together to make more complex and reusable components, I feel this would be needed as applications scale.