

IFS 104 Homework #4

Financial Applications

Use the concepts and examples of **Chapter 4** as your guide.

Save all your files in the homework04 folder on your k: drive.

1. Complete “Apply Your Knowledge 1 Monthly Loan Payment” on page 296.
Save each of the three cases to a separate workbook.
2. Complete “In the Lab 3 Loan Analysis and Amortization Schedule” on page 302. You can skip the hide and unhide parts.
3. I’m producing a new CD with Justin Timberlake (I think that’s his name). The finances for the deal look pretty sweet to me:
 - Fixed expenses for the project: \$4,300,000
 - Expenses per CD: \$0.25
 - Revenue per CD: \$7.10

So, what I’d like to know is if I front the \$4.3 million, how many CD’s do I have to sell to break-even? I think this formula will do the trick:

$$\text{Break even} = \text{Fixed expenses} / (\text{Revenue per CD} - \text{Expense per CD})$$

Please use names liberally (and correctly) in your solution.

I’m kind of concerned about the high fixed expenses of this project. I want to break-even after selling only 500,000 CD’s. What will fixed expenses have to be for the company to achieve this **goal**? Please save this to a separate workbook/file.

4. My buddy Patty McPatt has an offer in to buy one of those expensive tear-downs in downtown Naperville. Here are the numbers that Patty's financial advisor gave him:
- With some measure of negotiation, the house will probably cost \$865,000.
 - Patty has \$125,000 saved up for a down payment.
 - The banker said he can get Patty a sweet interest rate of 5.75% for a 15 year, fixed rate loan.

So, please:

- a) Calculate Patty's monthly payments for the house, using cell names in your formulas
 - b) I have a picture of this little place. It's [shack.jpg](#) on the k: drive at `common_area/homework`. Please tastefully insert this graphic into your worksheet and assign a hyperlink to some City of Naperville site.
 - c) Create an amortization table so that I can follow the details of Patty's loan over its 15 years. There are a number of examples of amortization schedules available in Chapter 4 to help you.
 - d) Properly protect the worksheet, so that your good work can be shared with others. No passwords please!
5. **Web special** – no web special this homework because I've got bigger fish to fry. My Ebay business (selling Legos remember?) is doing so well that I'm going to start saving to buy one of those cool "personal jets" from Honda called the HondaJet (<http://world.honda.com/HondaJet/>). It's a beauty, a sweet ride, and only \$3.65 million.

So anyway, I'm saving up, and I need your help. I'm going to try and save \$100,000 a month. I'll stash the money each month into some mutual funds that I think can return 7.5% annually. If I do this for 2 years, will I have enough to buy my HondaJet?

If I am not saving enough, then how much would I have to save each month to reach my **goal**? Save each of these to separate workbooks. Done!