

CS360 Design Specification

Today's Date: Thursday, April 29, 2010
Final Project Due Date: Monday, May 17, 2010 (3 pm)
Days Until Project Is Due: 18

I would like each group to produce a design specification and a time table for their final project by Sunday, May 2, midnight.

Design Specification

Minimally, each group is to create a set of javadocs where the javadocs contain all classes that will be used in the final project. Each class is to contain method stubs for each public method that will be used to communicate with a class object. Each method is also to be documented as to the purpose of the method. Please notice that I am not asking for any code to be written.

In a perfect world, you will provide for each method:

- 1) the values passed into the method
- 2) what will be returned from the method

Provide as much complete information as possible. The more information you can provide, the easier it will be to integrate each person's code into the final project. What you really need to get out of the design specification is the interface portion for each class. The more specific the description, the better.

Here is a minimal example for a LoanInfo class:

```
public class LoanInfo
{
    /**
     * Compute the loan payment for a loan given the principal, interest rate,
     * and time in years.
     */

    public void computePayment ()
    {
    }

    /** Compute the amount of interest paid over the life of the loan given the
     * original principal, loan payment, and time in years.
     */

    public void computeInterestPaid ()
    {
    }
}
```

Here is a much better example for a LoanInfo class:

```
public class LoanInfo
{
    /**
     * Compute the loan payment for a loan given the principal, interest rate,
     * and time in years.
     *
     * @param principal loan amount
     * @param interestRate yearly interest rate
     * @param timeInYears number of years the loan is for
     *
     * @return monthly payment used to pay off the loan
     */

    public double computePayment (double principal, double interestRate,
                                   double timeInYears)
    {
    }

    /** Compute the amount of interest paid over the life of the loan given the
     * original principal, loan payment, and time in years.
     *
     * @param principal loan amount
     * @param monthlyPayment monthly payment used to pay off the loan
     * @param timeInYears number of years the loan is for
     *
     * @return amount of interest paid over the life of the loan
     */

    public double computeInterestPaid (double principal, double monthlyPayment,
                                       double timeInYears)
    {
    }
}
```

Time Table

Once you have finished your Design Specification, you will have 15 days left to code up your project, integrate each person's code into the final project, and test your final project. I would like you to give me a time table for when:

1. each class will be implemented
2. you will begin incorporating each class into the final project
3. all code will be integrated into the final project
4. all testing will be complete

Final Presentation

Remember, for the final, each group will give a 30 minute presentation that teaches the class specifics of what they learned and then demo their final presentation. More about this later, but I don't think it will take each group that long to put this presentation together. You will know your project like the back of your hand by then.