

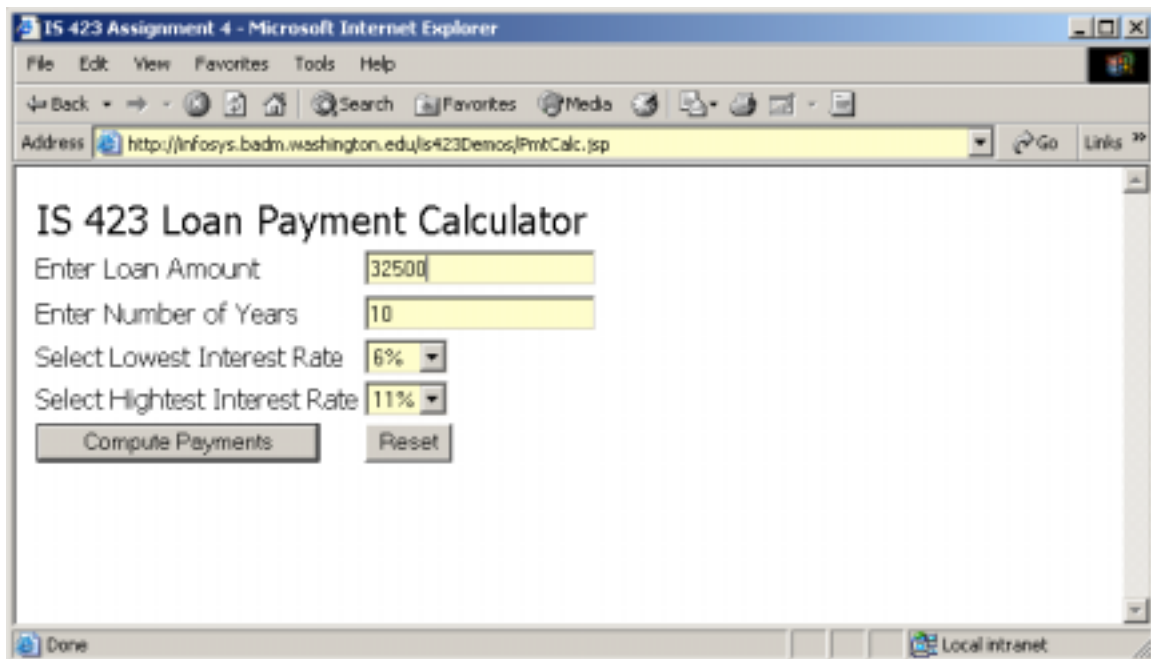
Objective

This assignment is designed to introduce you to the use of Java Server Pages (jsp) to support server-side processing. It also introduces the use of JavaBean components.

Problem description

Your solution should accept four parameters from a web page and then compute monthly payment amounts given the values of the parameters.

Your first jsp page should accept a loan amount, a maximum number of years, and two interest rates. You should use text boxes and drop-down lists as shown below.



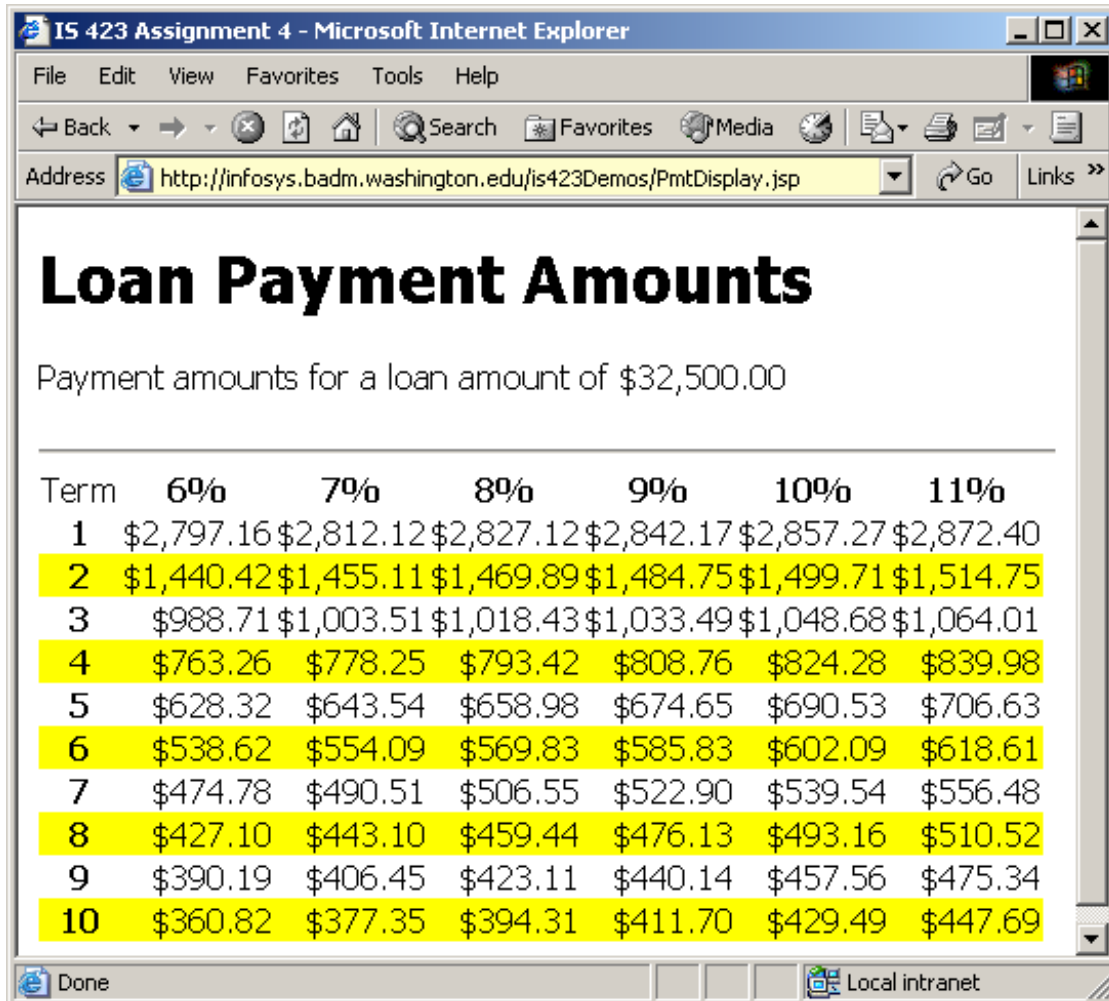
The screenshot shows a Microsoft Internet Explorer browser window titled "IS 423 Assignment 4 - Microsoft Internet Explorer". The address bar contains the URL "http://infosys.badm.washington.edu/is423Demos/PmtCalc.jsp". The main content area displays the "IS 423 Loan Payment Calculator" form. The form includes the following fields and controls:

- "Enter Loan Amount": A text input field containing the value "32500".
- "Enter Number of Years": A text input field containing the value "10".
- "Select Lowest Interest Rate": A dropdown menu with "6%" selected.
- "Select Highest Interest Rate": A dropdown menu with "11%" selected.
- Two buttons: "Compute Payments" and "Reset".

The browser's status bar at the bottom shows "Done" and "Local intranet".

After the user enters the values for the four parameters, a table of monthly payment amounts should be displayed. This table should display the payment amounts for each year starting at year 1 and stopping at the value entered by the user as the Number of Years. The table should also display monthly payments for each of the interest rates between the user-specified low and high values (inclusive). The interest rates should be incremented in 1% steps.

The screen shot at the top of the next page shows a sample output.



IS 423 Assignment 4 - Microsoft Internet Explorer

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Address <http://infosys.badm.washington.edu/is423Demos/PmtDisplay.jsp> Go Links >>

Loan Payment Amounts

Payment amounts for a loan amount of \$32,500.00

| Term | 6% | 7% | 8% | 9% | 10% | 11% |
|------|------------|------------|------------|------------|------------|------------|
| 1 | \$2,797.16 | \$2,812.12 | \$2,827.12 | \$2,842.17 | \$2,857.27 | \$2,872.40 |
| 2 | \$1,440.42 | \$1,455.11 | \$1,469.89 | \$1,484.75 | \$1,499.71 | \$1,514.75 |
| 3 | \$988.71 | \$1,003.51 | \$1,018.43 | \$1,033.49 | \$1,048.68 | \$1,064.01 |
| 4 | \$763.26 | \$778.25 | \$793.42 | \$808.76 | \$824.28 | \$839.98 |
| 5 | \$628.32 | \$643.54 | \$658.98 | \$674.65 | \$690.53 | \$706.63 |
| 6 | \$538.62 | \$554.09 | \$569.83 | \$585.83 | \$602.09 | \$618.61 |
| 7 | \$474.78 | \$490.51 | \$506.55 | \$522.90 | \$539.54 | \$556.48 |
| 8 | \$427.10 | \$443.10 | \$459.44 | \$476.13 | \$493.16 | \$510.52 |
| 9 | \$390.19 | \$406.45 | \$423.11 | \$440.14 | \$457.56 | \$475.34 |
| 10 | \$360.82 | \$377.35 | \$394.31 | \$411.70 | \$429.49 | \$447.69 |

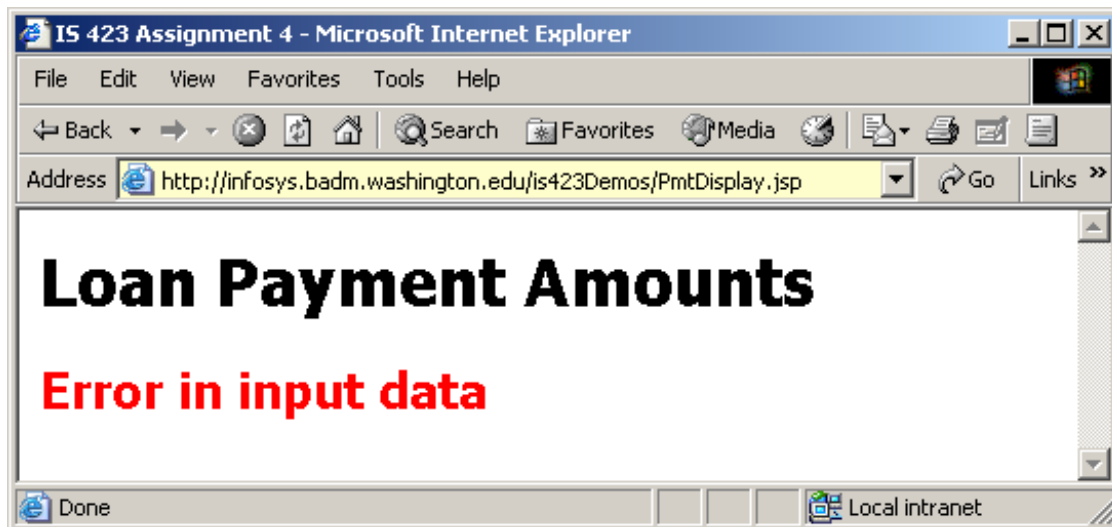
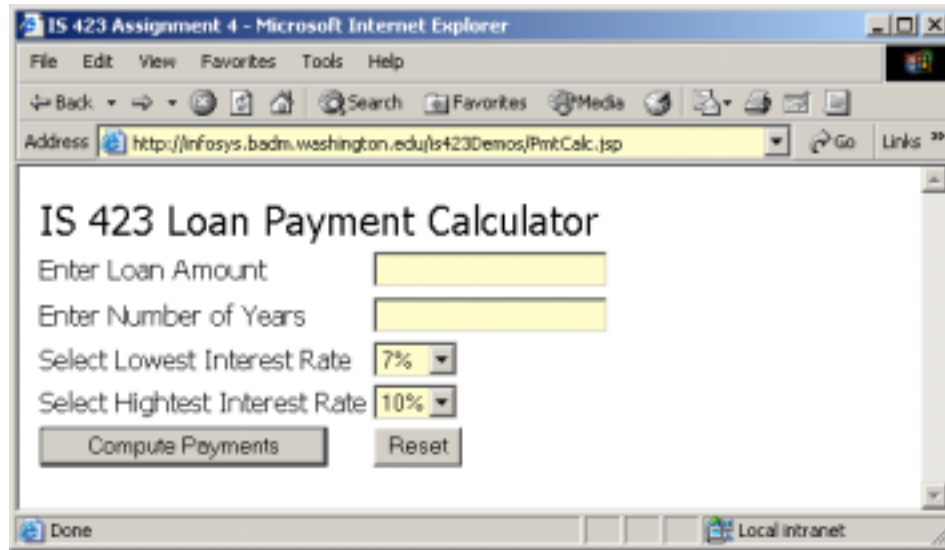
Done Local intranet

You **must** use a JavaBean to compute each individual payment amount. The bean should include the following methods:

```
public void setAmount(double amount)
public void setRate(double rate)
public void setYear(int year)
public double getPayment()
```

Use the same formula you used in Assignment #1 to compute the monthly payment amount.

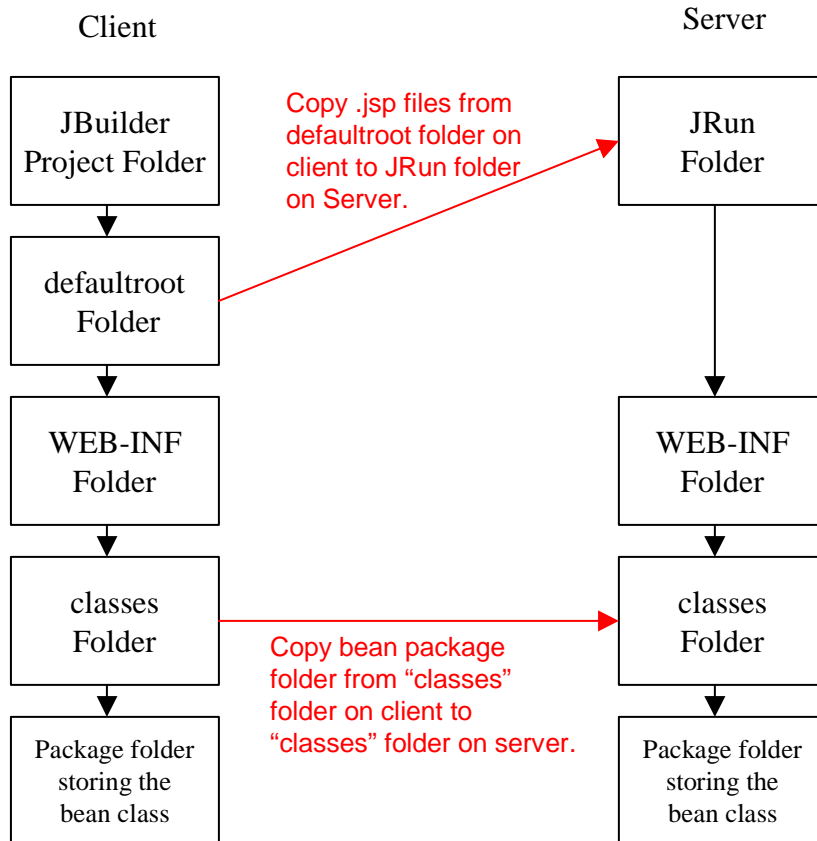
Be sure to check for invalid data and respond appropriately. The two screen shots on the next page show what happens if the user leaves a field empty and then clicks on the **Compute Payments** button.



Directory Setup

You need to FTP your java server pages and your JavaBean class package to the server for final testing and grading. The location of these files is critical for successful deployment. When you log in to the server, you will be in a directory with the same name as your team account. For example, if you log in as is423t127, you will be in a directory named is423t127. Within that directory will be another directory named JRun. It is within this JRun directory that you need to store your files.

The following diagram shows how this directory is structured and where you should place the various files. It also shows a typical JBuilder directory structure and where the files that need to be uploaded are located.



Your URL

The URL for your jsp projects will be similar to the one below. You need to replace "t127" with your own team number and "a4.jsp" with the name of your jsp file.

<http://infosys.badm.washington.edu/is423t127jsp/a4.jsp>

To Turn In

Send an email to is423wb@u.washington.edu. In the subject heading put your team account number:

Subject: is423t127

In the body of the email include all your team member names and include the URL to the first page of your solution. Provide the entire URL including the http:// prefix.