



CIS 3270 Assignment #8: Dealing with Date/Time

Due Date: October 30th

Instructions: This assignment will let you model a simple certificate of deposit. Bank of America offers the following interest rates for its CD product: (see real and complete rates table at http://www.bankofamerica.com/deposits/checksave/index.cfm?template=cd_investment)

| Term | Interest Rate (%) |
|--------------------|-------------------|
| 7 - 59 days | 2.00 |
| 60 - 89 days | 2.10 |
| 90 - 179 days | 2.25 |
| 180 - 364 days | 2.50 |
| More than 364 days | 3.25 |

Your task is to develop a simple application to calculate expected interest on maturity. The application should at least consist of:

- a. A web page with an HTML form to accept user input: users should have two choices to enter data:
 - 1) They can enter original deposit amount (principal), deposit start date (default is “today”) and deposit term (in days)
 - 2) They can enter principal, deposit start date (default is “today”) and deposit end date
- b. A servlet (and additional classes if needed) to process user input and display a simple statement including the following information (business formatting): deposit start date, deposit end date, term, principal, interest rate, expected interest amount on maturity.
 - 1) You need to calculate the term or the maturity date depending on how users choose to enter their data.
 - 2) Interest is not compounded (for simplicity; you can try compounding it yourself):
$$\text{Interest Amount} = \text{Principal} * (1 + \text{Interest Rate} * \text{Term}/365)$$

Use your application to answer these two questions

- 1) Given that "deposit start date of '8/1/2006', maturity date of '2/11/2007', deposit amount of '\$12,000', what is the expected interest amount for this deposit?
- 2) Given that "deposit start date of 'today', term of 100 days, deposit amount of \$7,000", what is the expected interest amount for this deposit?

Submission

- A screenshot of the JDeveloper environment (with the servlet file open);
- A screenshot of the servlet output displayed in browser (the URL should be shown clearly).
- Complete source code, printed out separately (pasted in Word);
- A copy of your “web.xml” file, printed out separately.

Note: screenshots need to be complete and original, no graphic editing. Clearly name and label all screenshots and source code.