

**PHI BETA LAMBDA**  
**2007-08 NLC TOPICS (2008 Atlanta)**

The topics are also found in the *Chapter Management Handbook*, Competitive Events section.

**BUSINESS ETHICS**

Ethics in Finance

**DESKTOP APPLICATION PROGRAMMING**

You have been hired by Widget's Incorporated to write a payroll processing system that will process hourly payroll every week.

You will need to:

- Generate an updated file with current payroll information.
- Create a check and check stub based on the information provided in this problem.
- Produce a payroll journal.

The program needs to have a user interface that will offer menu choices to:

- Change the default hours worked (40 hours) for the pay period.
- Process the payroll for every nonterminated employee in the file.
- End program.

The program will read an employee pay file containing term code, employee ID, pay rate, hours worked, dependents, and insurance amount among other fields. The gross pay is calculated based on hours worked times pay rate, with overtime calculated at time and one half for any hours worked over 40. From this gross amount, subtract:

- Federal Insurance Contributions Act (FICA) at 7.65 percent.
- Federal Income Tax at \$65.38 times number of dependents resulting balance times 15 percent (e.g., gross-\$65.38 times dependents times 15 percent).
- Insurance payment amount.
- Calculate net pay to write the check.
- Update the year-to-date (YTD) totals in the employee pay file.

The check must contain check number, name, amount of check in numbers (no words), and date of check. The check stub must contain name, employee ID, hours worked, gross pay, withholdings (breakdown), net pay, YTD taxes withheld, YTD gross, and date. No check should be printed for a zero or negative amount. If a calculation should result in a zero or negative amount, the insurance deduction should not be taken.

There is also a printed detail report for the entire payroll, a summary of final totals for each of the withholding amounts, and the report calculates the employer contribution for FICA at 7.65 percent and Federal Unemployment Tax Act (FUTA) at 6.25 percent.

The terms used in the program assignment must be researched and correct data types must be chosen. The file data as presented is the data at the beginning of the payroll process. All codes and amounts should be treated as such. The file should be a fixed length file named PAYFIL.DAT and must contain the fields:

Field	Len	Description and valid values
TermCode	1	Values are Blank, R, T (Blank is active, R is retired, T is terminated)
EmplID	6	Any number from 1 to 999999
FName	15	First name
MName	1	Middle name
LName	15	Last name
Suffix	5	Suffix (e.g., Jr, Sr)
HourRT	4	Hourly Rate of pay (should be able to hold 99.99)
HourWK	2	Hours Worked (should be able to hold 99)
Dep	2	Number of dependents claimed (should be able to hold 99)
Insur	5	Insurance amount (max amount is 999.99)
YTDGR	8	Must be large enough to hold rate of pay times hours worked for the year

- YTDFICA 7 Must be large enough to hold the amount of FICA paid in for the year
- YTDFED 7 Must be large enough to hold the amount of federal income tax paid in for the year

### Sample Data Payroll Journal

EmpID	Name	Gross Pay	FICA	FED	Insur	Net Pay
987678	Min E. Mouse	290.00	22.19	14.08	125.50	128.24
234843	John Doe Jr	631.25	48.29	94.69	65.00	423.27
432345	Mary H. Lamb	171.00	13.08	15.84	65.00	77.08
234123	Lisa Juno	636.00	48.65	95.40	0.00	491.95
Final Totals		\$1,728.25	\$132.21	\$220.01	\$475.50	\$1,120.53

Total Payroll Liability for: FICA—\$264.42, FUTA—\$108.02, and FED—\$220.01.

### DIGITAL VIDEO PRODUCTION

Create a promotional digital video to highlight FBLA-PBL Week and the chapter activities and promotion for the week.

### E-BUSINESS

Your state PBL chapter is planning to attend the National Leadership Conference this year. Create an E-business Web site where all members and chapters from the state can purchase T-shirts. The site should have a coordinated theme that is apparent in the design of the site. Do an audience analysis and design the features of the Web site to appeal to that audience. The site should include choices of at least three styles of shirts with sizes from XS to XXL. The site should motivate the members to purchase T-shirts. At a minimum, the site should have a navigation scheme, graphics, shopping cart, pricing for individuals and/or groups, payment options, delivery options, and security guarantees. Information may be fictitious.

### EMERGING BUSINESS ISSUES

The cost of health care hurts big businesses, small businesses, health care providers, government, communities, and individuals. As a result, whether it is quality, access, or cost, everybody has an interest in seeking solutions to the rising cost of health care. States and communities are poised to drive innovation in health care and it is one of the major issues of the coming elections. Argue for or against government regulation of our health care system.

### INTERNET APPLICATION DESIGN PROGRAMMING

Create an interactive Web page that will calculate GPA. At least two (2) files/tables will be located on the server, one to hold student information (student ID, first name, last name, middle initial, address, city, state, zip code, adviser, and curriculum) and one to hold student class grades (student ID, class ID, grade, credit hours, semester code). Final file/table layouts will be up to you, but must be included on the CD/DVD.

The starting point will be a Web page asking for student ID. If the student record is found, return with student data and read the grade file/table, list courses, grade, credit hours attempted, quality points by semester and cumulative, calculated GPA for each semester, and calculated overall GPA.

If the student record is not found, return to an informational page stating the student has no records. Ask user if they would like to add the student. If no, go back to initial Web page. If yes, display a form that asks for the student master file/table fields and do validation of those fields according to the specifications below. State should be a drop-down list box with your state as the default option. Zip code could be separate fields for ZIP and ZIP+4. Validation for adviser ID and curriculum ID will depend on the options you choose. If using separate files/tables for either or both of these fields, use drop-down list boxes. Ask user how many grades are to be entered and then generate form accordingly. More validation will be needed for this form. When all classes and grades have been entered, display the information as if the user had just entered the student ID and the record was found.

GPA is calculated by using the sum of the quality points [numeric grade value (A=4, B=3, C=2, D=1, and F=0) multiplied by the credit-hours of class, divided by the sum of the credit hours attempted. For example, A in a three credit-hour class equals 12 quality points; B in a three credit-hour class equals 9 quality points; C in a two credit-hour class equals 4 quality points. The sum is 25 quality points. The sum of credit hours attempted is eight credits. The final

GPA is calculated 25 divided by 8 equals 3.125.

### **WEB SITE DEVELOPMENT**

Develop a Web site to advertise an event that takes place in your community every year. It may be the 4<sup>th</sup> of July celebration, a rodeo that comes to town, the opening of school, and so forth. The information may be fictitious.