

CALIFORNIA STATE UNIVERSITY, SACRAMENTO
College of Business Administration

MIS 155 - Fourth Generation Language Application

P1 - Form and Menu Modules

Points: 30

Due: Wednesday, February 15

The objective of P1 is to familiarize you with Developer's Forms environment and the basic components of form and menu modules. This assignment involves the following creations and implementations:

- Form and menu modules
- Basic PL/SQL programming
- Class properties and inheritance

As stated in the course syllabus, all assignments will lead toward the completion of a single application, a decision support system. For the first phase, you will create a series of form modules that will include a welcome screen, main menu and individual windows that will be used later to view reports and graphs, and perform queries. Create and attach to each form a standard menu module.

Forms Modules

All canvases throughout the application should possess a consistent appearance in the placement of their titles, headings, and menus, and of their fonts and background color(s). Users should not be *surprised* each time they enter a new window. *Surprises* only lead to confusion and frustrations, and invoke low confidence in the application (i.e. an amateurish software).

Use a pastel color for the form's background color. Avoid colors with sharp contrasts (e.g., green and red, blue and orange; these are opposites). *Use your common sense!*

Develop five forms: a greeting screen, a main menu and three null windows (i.e., blanks). The menu map in Figure 1 depicts their relationship. In addition to identifying the application (i.e., static text object), place two push-buttons on the greeting screen (form) that allow the user to enter or exit the application. Select a font and size (i.e., point) for your items

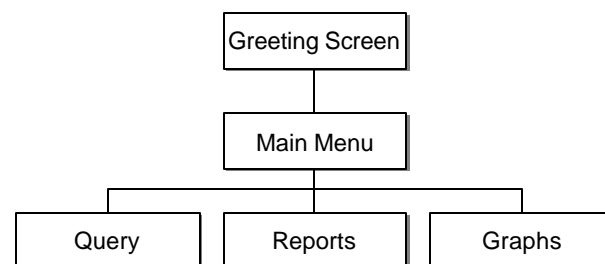


Figure 1. Menu map



other than the default. Be sure the font you select for the push- buttons is used consistently throughout the application (for all push-buttons).

The second form, the main menu, will possess a menu bar (module) and four push-buttons. The command buttons will direct the user to (1) view reports, (2) view graphic models, (3) perform (ad hoc) query functions, and (4) exit the application.

Create a property class in the first form (i.e., greeting screen), and have all subsequent forms inherit selected properties (e.g., window and canvas size and color, button font and font size, etc.) from the class. This will ensure all screen appear the same, and facilitate any changes since all changes to the parent will appear in all children.

Note. Once the user enters the application, s/he can only terminate the application (i.e., exit) from the main menu, nowhere else.

The three functional forms (view reports, view graph models and perform queries), will be stubbed for now. The canvases may be void of items except for an appropriate text title and a push button. Although the push button may not be functional, its triggers will *suspend* the form. Otherwise, the form will appear and quickly disappear. Termination of these forms will be made via the menu (File, Exit).

Note. You will need to place an object with a trigger related to it (i.e., push button), on these three forms. This will prevent the form from exiting prematurely. Otherwise, you will only see a glimpse of your form before it returns to the calling form.

Exception to the rule...

- No menu for the greeting screen window object.

Note. A log on window will be developed in P6 and serve as the first window.

Menu Module

Place at least two menus, File and Help, in the menu module. The File menu will include at least an Exit menu item (others may be include; stub them with a dummy argument). Exit closes the current form and in the case of the main menu, terminates the applications.

Note. To prevent the main menu form from returning to the greeting screen, use `NEW_FORM` to call it (main menu from the greeting screen). A `CALL_FORM` or `OPEN_FORM` will keep the calling form available and not close it.



For the Help menu, include an About item (see class notes for PL/SQL code). The About item in the Help menu presents a message box (i.e., alert) with the following features:

- About Help for a title
- A short description describing the application for its text
- OK! for the button

Tangibles

Place the following in a 9 × 12 manilla envelope:

- Screen captures¹ of the greeting and main menu windows (the others will be blank, hence unnecessary)
- Printouts of your form modules in Object Navigator (see Figure 2). Be sure to expand the forms module (i.e., expand all) to display every item, and a printer is connected to your computer. (Print is located under the File menu.)
- 3½-inch diskette, CD or USB flash memory with your files. Before submitting it, be sure it works from the appropriate drive!

Note. When copying your files to your medium (i.e., diskette, CD, flash memory), please (1) copy only those files that are necessary to run your assignment, and (2) copy all files into the root directory (i.e., no subdirectories). ***Be sure to retain a copy of your files.***

As stated in the syllabus, assignments are due at the beginning of class. No late assignments will be accepted.

Warning! Check your diskette for viruses. Any diskette with a virus will not be graded.

¹To capture your screen, press the *Print Screen* key; this copies the image into the clipboard. Open a Power Point file and *paste* the image into a slide.



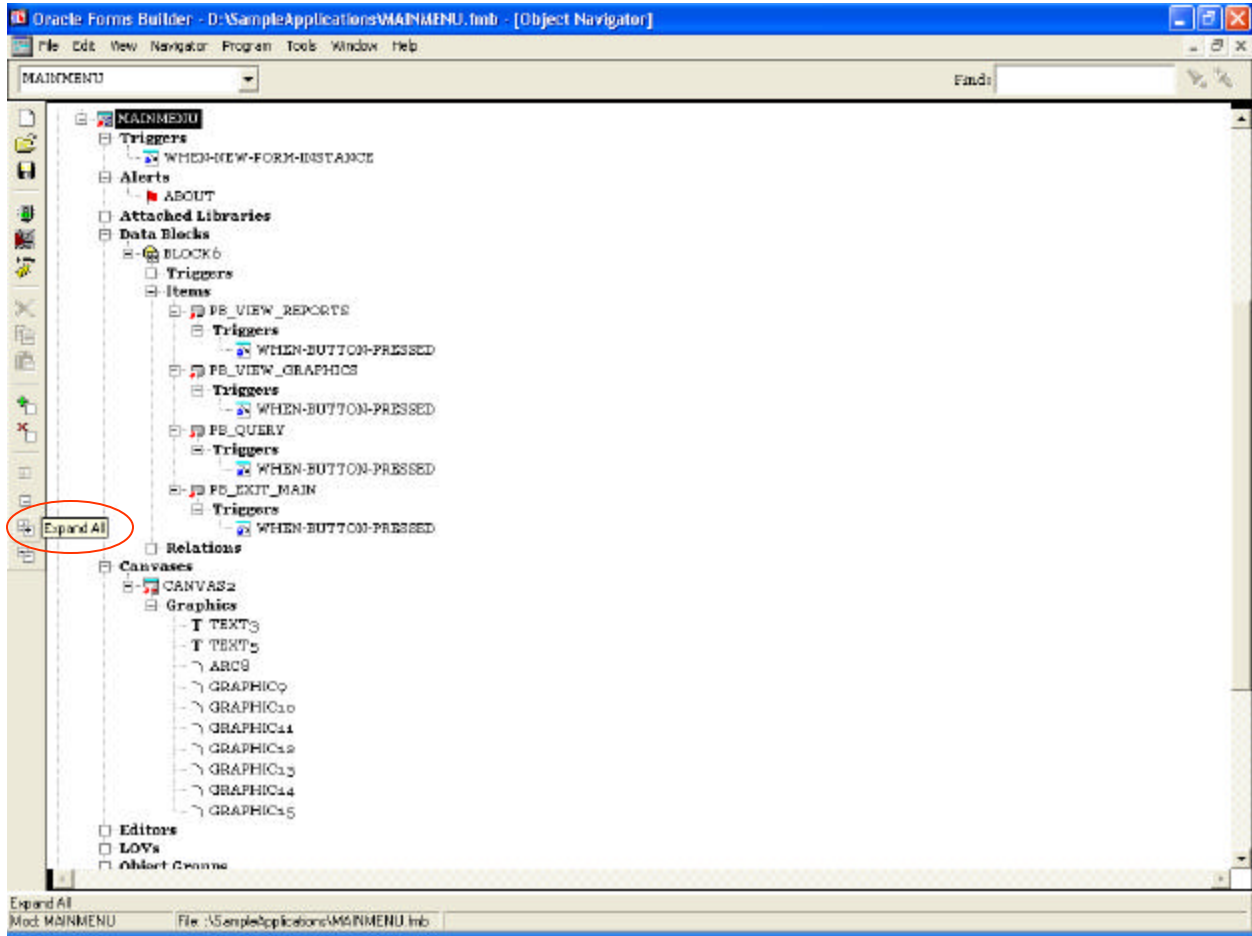


Figure 2. Object navigator screen capture

