Project Phase 2: applet-based photo album

April 16, 2007

Homeworks 10, 11: due 20 & 23 April

Introduction

All teams have submitted some work for Phase 1 (recall, the goal of Phase 1 was to produce composer, player, and backend for an album of empty pages, with titles, but no images). In addition, a sample solution has been provided in TeamSandBox/PhotoAlbum within the CVS repository.

Now we move to Phase 2, where the goal is to add images to the album and show the images with the player. The minimum requirements of Phase 2 are:

- There is still only one album – you do not need to implement multiple albums for Phase 2.
- The composer program can create a new album, edit the last saved album (adding pages, subtracting pages, cutting a page and pasting it somewhere else), and save the album. You should be able to rearrange pages, duplicate pages, and use cut-paste to move a page to an arbitrary location in the album.
- The composer can change the album title, the title of each page, and enter at least one text area to be shown on the page (the text area might be different from the page title).
- The composer can select at least one picture to be shown on the page. This picture can be selected (at a minimum) by title, perhaps from a scrollable list of titles. The composer doesn't need to display the picture (whereas that is required for the player).
- The composer uses the backend to get a list of available images for the album and to fetch an image. The backend should use the jar technique (see TeamSandBox/demoImageLib for techniques) to work with images.
• The player should enable viewing the saved album, showing images, text area, album and page titles. The player should provide a navigation interface so that users can go forward and backward in the album.

As you can see from the list above, the goals of Phase 2 are modest; probably every team will be able to do more than what is listed here. For example, you might have time to work on Phase 3 features such as having multiple images per page, multiple text areas per page, being able to resize and position pictures with the composer for each page, select borders for images, backgrounds, fonts and other styles. For Phase 3, the player can have automatic slideshows, advanced navigation (thumbnails, slider bar, etc), fade-in effects, and so on. The backend can optimize the way that an album is saved, not saving images themselves that are in a jar file; the backend could also include ways to produce a jar file containing exactly the images needed by the saved album. Some advanced features require team cooperation in design and implementation; I mentioned in class the possibility that some content of an album could be password protected, so that the player only shows that content when a password is given (properly implemented, this requires work by all three roles). The backend could support composer “templates” so that some defined album style formats make it simpler to make albums with a certain look. The player could take less rigid information about how image and text are put on a page by the composer and generate a different kind of view for a large applet window than a small one. Obviously, there is no end of additional features that could go beyond Phase 2, but at present, the list above is the minimum requirement.

Phase 2: Improving CVS Cooperation

Going forward with Phase 2, it could be useful for you to create a Phase2 project in your CVS repository, and start putting all programs in that project. Then, each team member can simply check out Phase2 to get the current code from all members. Most probably, each of you will be working on a different java program in the Phase2 project, so a commit operation will not interfere with anyone else’s progress.

Homework 10

Due 20 April 2007. This homework is just submitted on paper by one member of each team member: the team scribe for the assignment. As before, the team scribe should take summary notes at team meetings, to note what has been decided, who will do what, list outstanding issues (problems, unknowns to be researched, etc.) and near-term plans. Also, the team scribe should report on what has been entered into the team’s CVS repository, the current state of the program (works, works partially, and so on). Ideally, the report should have a small description for each time the team met, or if there was significant email correspondence, mention that and what it was about. We’d like to see that each team is on
track to successful completion of Phase 2. The scribe for Homework 10 should be different from the scribe of Homework 8.

Homework 11

Due 23 April 2007. Submit Phase 2 work to your CVS repository.

IMPORTANT: please make sure we know how to run your applets or other programs. For example, write a README that says which programs are working on 23 April and any special notes we might need to get them running and working. If some features don't work yet (but the basic Phase 2 features are functioning), that's OK – you can explain that in the README.