

# PHYS 495 Problem Set 4

*Date: Thursday, December 3<sup>rd</sup>, 2003  
Due date: Thursday, December 10<sup>th</sup>, 2003*

*Instructions: Work should be submitted on or before due date. Submit your work to the teaching assistant both in electronic and printed forms.*

*Reading: Java documentation on `GridBagLayout`, `Panel` and other layout managers.*

- **Problem 1** - [20 points]

Write a class called `GraduateInformationFrame` which should extend (be a subclass of) `java.awt.Frame`. It should contain two fields for the first and last names of a person, clearly labeled so.

- **Problem 2** - [20 points]

Add a field for birthdate, which should be composed of three fields, one for day, one for month, and one for year. Day should be a `Choice` from 1 to 31, and month should be a `Choice` of month names. Year should be a good old `TextField`.

- **Problem 3** - [20 points]

Add a field for sex. It should compose of a `CheckboxGroup`, one for male, and one for female. Also add a `Button` labeled "Submit". Finally, add a field for graduation date, which should be a `List` containing dates from 1980 to 2001.

- **Problem 4** - [40 points]

Use any layout techniques you can learn in order to lay these components out properly. The ideal would be to learn about `GridBagLayout`. Or, you can try using different `Panels` inside the frame. In any case, the components should look well placed on the frame.

Note that the class should generate all this layout in its constructor – not in the `main()` method. The `main()` method should just be:

```
public static void main(String[] args) {  
    GraduateInformationFrame f = new GraduateInformationFrame();  
    f.setVisible(true);  
}
```

... and that should be sufficient to display this frame.