

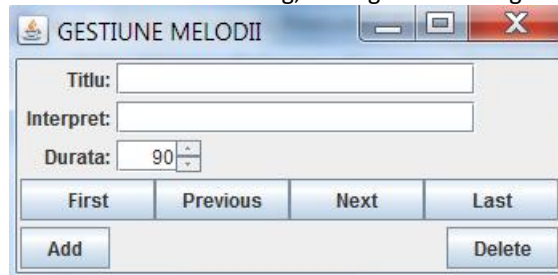
## Laboratory 9,10,11

### Objectives

- Create applications using Java Swing

### Exercises

1. Create a graphical interface that allows the management of a list of songs. A song is characterized by title, duration and the name of the person that sings the song. Create a list of songs and create a interface that allows iteration throw the list of song, adding and deleting songs to/from the list.



2. Create an graphical user interface for a program that allows the drawing of the following forms: rectangles, circles, stars and smiley face. The application should have the following features:
  - a) A menu that allows to chose the figure that is drawn
  - b) A graphical surface that allows to draw the chosen figure from menu
  - c) A menu entry (or toolbar button) that allows to choose a color for drawing
  - d) A menu entry that allows to draw filled figures
3. Create an graphical application that allows grouping a list of students in groups.
  - a) Create a GUI for creating groups
  - b) Create a GUI for creating students
  - c) Create a GUI for assigning students to groups

### Homework (3 weeks)

1. Create a GUI for the following problem: create a class Playlist that has like attributes the start time, a list advertisements and a minimum and maximum duration. An advertisement has a firm for it is done, a description, a duration and a price. The interface will allow:
  - a) (2.5p)Management (add/delete/edit) list of playlists
  - b) (2.5p)Management (add/delete/edit) list of advertisements
  - c) (2p)Create a bar diagram with the price of advertisements from the list of playlist
  - d) (1p)Create a table to display all advertisements for a playlist, allow the table sorting based on different criteria (price, duration, firm)
  - e) (1p)Validate the input data (use JOptionPane)
  - f) (1p)Add an about menu to your application that opens a window with some information about the application