King Saud University

College of Computer and Information Sciences

Department of Computer Science

CSC 113 Project – Second Semester 1446
Phase 2
Due date: 1/05/2025

In this phase you will improve the system you submitted in **phase 1** , you will enhance the program by :

- handling exception
- Using files.
- Providing an easy Graphical User Interface for the user using the different features provided by Java GUI.
- Using a linked list instead of the array

Project Title: Java project phase 2

Project Requirements:

- Your system should handle at least one checked exception and one unchecked exception.
- Your system should have **at least one user defined exception** (this exception should serve your design).
- Your system should support saving user input into a file and reading from a file (you should select the suitable type of files for your system : binary file , text file , object file) .
- Your GUI must have at least two frames :
  - frame for the user input.
  - frame to display the results.
- Your GUI must handle action events.
- In phase 2 , you should replace one of the arrays in phase 1 with a linked list (you can use the implementation of class node and class linked list provided in the lecture)

note:

- you can be as creative as you want and use any GUI feature even if it is not explained in the slides as long as it serves your system (you can refer to Java documentation for help)
- You should use the code you wrote previously (you can apply some modifications to your previous code, but not write it from scratch)
- Use a neat layout. The design is up to you, be creative!

Submission Guidelines:

• you will submit a report that includes the following:
  - A cover sheet including the names and IDs of your team members and the division of work among them.
  - Introduction about your program indicating what was modified, where are the exceptions handled, how did you manage the files .
  - Implementation issues describing the GUI components used and the design of your GUI.
  - Screenshots of your GUI
- All submissions, should be made through LMS.
- The submitted work should be your own work. Any case of unethical conduct will result in an F in the class.
- Your code should be written with: proper indentation, comments, and proper naming of the variables, methods, and classes. All of these points will be graded.

- **After the submission there will be a discussion were you will present a demo that demonstrates your working code to your instructor on a scheduled session (you will be asked about your work) .**

Example of a java project :

Project idea : event planner .

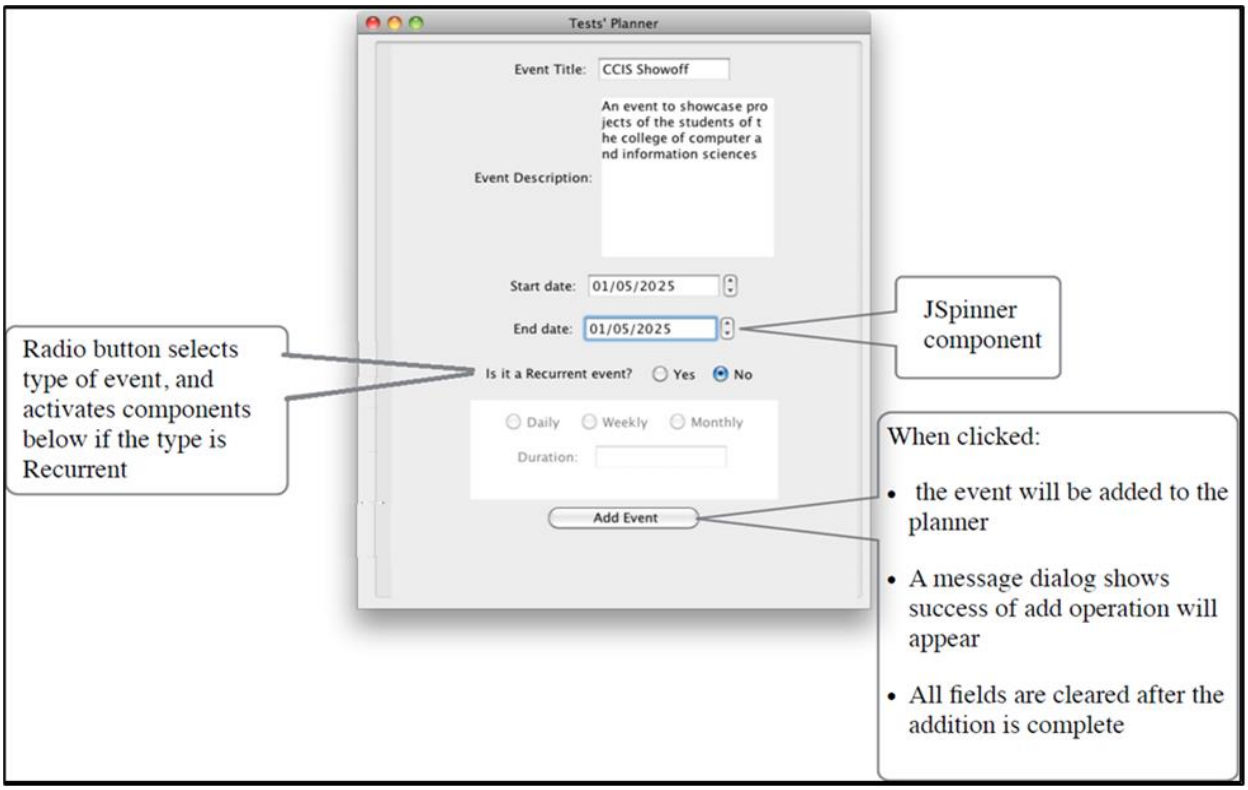
Project introduction :a project of a simple planning application to keep track of events and manage them. It can be used by more than one user, each with their separate data that can be accessed after a user logs in.

the program have a : planner , user , event : the event can be an appointment or a recurrent event . there is a separate class Application to test the planner.

the project GUI will have two frames :

- first frame to enter the event details
- second frame to search for a specific event
- actin events are handled when buttons are clicked.

- **add an event frame :**



- **Find an event frame**