

Assignment 4

Thread and GUI

1. One thread takes an input from user and increments an integer variable by that amount. Another thread reduces the variable by a fixed amount. Execute two versions of each thread simultaneously and all working on same variable. Once all threads are over display the value of the variable and check whether it shows correct result or not. Repeat the experiment several times.
2. Repeat the problem stated in Q.1 ensuring mutual exclusion on shared variable.
3. Implement reader-writer problem. Reader will wait only for ongoing writer but a writer will for both, ongoing reader and ongoing writer.
4. Consider an employee has empcode (unique), empname, basic salary, grade, dept code. Develop GUI based application for the following:
 - a) Develop GUI to accept data from user. For dept code, a list of dept names are to be shown from user chooses one and corresponding dept code will be part of employee object. Grade is either A or B or C. Once user selects SAVE button, get confirmation from user and if confirmed object is to be stored in file/collection class (as you like). Ensure empcode is unique. For duplicate value a message dialog is to be displayed and it will not be stored.
 - b) Develop GUI that accepts an empcode from user. If SEARCH button is placed corresponding details are to be shown. If not found, display a message.