

BBM104 – PROGRAMMING ASSIGNMENT 4

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1- Defining Problem:

Main problem is creating a cinema system with GUI components. This system has many functionalities such as registering , selecting seat and hall for selected movies, adding/ deleting movies or halls. Also user type (Admin/Club Member/Normal user) is important because some operations are special for specific user types.

2- Solution Approach for Problem:

Database class is created for recording all the datas such as users, films, halls and seats. These data types are also independent classes and they have some attributes related to their tasks (Film has duration , Hall has row and column number,etc.). Data file (backup.dat) is read when Database's constructor is called. After calling that constructor, all of the users, films and halls are added in ArrayLists seperately. If there is no backup.dat file, no-argument constructor is called. In this constructor, only new user created with "admin" nickname and other ArrayLists are set empty.

All the other operations are handled in HUCinema class which has start() method and other scene methods in it.

3- Encountered Problems and Solutions For Them:

Main problem is placement for buttons and textfields. Sometimes their fields are overlapping and one of them is become not clickable. To solve that problem, they have been put in same pane (Vbox, Hbox or Gridpane, depends on the location) or distance between them have been increased until they are clickable again.

4- Benefits of System:

User, hall and films can be easily added or removed to system. When an admin adds user, film or hall object, this object is added into the ArrayList which object is belong to, also it is added in form of String line in backup.dat to save this change.

5- Benefits of GUI:

GUI is a bridge between the program and the user. Users don't have to know what goes behind that program. GUI provides better visualization for programs. Running program from command line is complex and not comfortable rather than GUI. Also GUI can guide users with buttons and informative texts.

Burak Kurt

2200765010