

Final Lab Assignment

Note

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- This is a graded assignment. Only those students who are going to opt for Advanced Programming, need to submit the assignment. Grades will be counted only for those who are opting for AP.
- It is mandatory for all the students to make GUI applications for this assignment.
- Java Swing should be used for this assignment.
- **Deadline is till Thursday, 20th August, 2020, 11:59 pm.**
- **Submissions done after 11:59 pm will not at all be graded.**
 - There will also be Demos (online) for this assignment for which you will get the slots from the assigned TAs.
 - Naming Convention to be followed: RollNo._A0.zip

A student of IIITD did a survey to find the status of COVID-19 cases in his society. He worked for a few months and found that, out of 1000 people in his society (in different towers of his society) 20 were COVID-19 positive. So according to the detailed report he summarized the below mentioned data. A person will recover after 21 days. Now he wanted to categorize the cases.

Patient Name Age Tower Date of Reporting

Flora 6 A 01/04/2020

Denys 24 B 01/04/2020

Jim 42 C 18/05/2020

Hazel 87 D 23/06/2020

Caery 72 A 01/06/2020

David 7 B 14/06/2020

Kevim 37 D 05/06/2020

Tom 67 D 20/06/2020

Bob 74 A 04/07/2020

Rachel 48 C 24/07/2020

Thomas 21 C 11/06/2020

Mary 17 D 21/06/2020

Smith 89 A 07/08/2020

Pearson 47 B 04/06/2020

Anderson 62 B 27/07/2020

Johnson 10 D 01/08/2020

Robertz 50 A 09/08/2020

Julie 86 B 02/05/2020

Edith 42 D 07/06/2020

John 95 D 01/06/2020

Problem: Make an interactive Java GUI application that finds and displays the **total number of active cases on a particular date and number of recovered cases on a particular date** in each category (tower) along with the **patient details with their recovery dates**. All the information of the patients must be provided in the class named as Patient. You can make use of appropriate OOP concepts wherever possible, to enhance your code.

Input: The program prompts the user for the Tower and the reporting date as input. For the tower category, use a Checkbox.

Constraint- All the input dates must lie within these 5 months(April 2020 - August 2020) only.

Output: The application displays: The number of active cases, number of recovered cases on a particular date(date taken as input) from each category(tower). It should also display all patient details (either Active or Recovered) along with their recovery dates. Use appropriate labels wherever required.