**HOSPITAL MANAGMENET SYSTEM - FINANCE**

**GROUP 5**

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**COMPARISON BETWEEN TH INITIAL CCODE AND THE IMPROVED IMPLEMENTATION**

*1.USER INTERFACE CHANGES.*

* The first version (HospitalManagementGUI) had separate buttons for adding patients, editing patient details, and deleting patients, while the second version combines patient creation and payment addition into a single interface using Java AWT.
* In the first version, the patient creation form includes fields for name, age, and payment amount, while in the second version, the patient creation form includes only the name and age fields. Payment addition is handled separately within the JFrame.
* The first version displays patient details in the IntelliJ console while the second version displays both patient details and payment records in the same JTextArea.
* The second version includes separate panels for patient information and payment information, while the first version was adding patient details via the IntelliJ console.

*2.Data Structure Changes*:

* In the first version, the Patient class includes a list of Payment objects, while in the second version, payment records are stored separately in a LinkedList<Payment>.
* The first version includes a Payment class with attributes for payment amount and payment date, while the second version adds a lastUpdatedDateTime attribute to track when the payment was last updated.

*3.Functionality Changes:*

* In the first version, NHIF calculation is done within the createAndDisplayPatient method when adding a new patient, while in the second version, NHIF calculation is performed when adding a payment.
* The second version includes methods for calculating NHIF, displaying payment records, and clearing payment fields, which are not present in the first version.

*4.Overall Structure:*

* The second version organizes the UI into separate panels for patient information and payment information, providing a cleaner and more organized layout compared to the first version.
* The second version separates concerns more effectively, with methods for adding payments, calculating NHIF, displaying payment records, and clearing payment fields.