

NOTE: as always, no part of this program requires you to use something we did not learn in class.

You are to write a program that computes a patient's bill for a hospital stay. The different components of the program are:

- The `PatientAccount` class
 - Will keep patient's personal information: Name, age, address, SSN
 - Will keep track of patient's chargeable items, mainly surgeries and pharmacy items
 - Can print an itemized bill listing each item, its cost and the total cost.
 - It will also keep track of the number of days spent in the hospital. The group must decide on the hospital's daily rate.
- The `Surgery` class
 - The `Surgery` class will have stored within it the charges for at least 5 types of surgery
 - Has `get/set` methods to `get/set` the selected medication item for each object
 - Has a function that prints a list of types of surgery items and their costs
- The `Pharmacy` class
 - The `Pharmacy` class will have stored within it the price of at least 5 types of medication and the price of each.
 - Has `get/set` methods to `get/set` the selected medication item for each object
 - Has a function that prints a list of types of medications items and their costs

BONUS: you can use inheritance (if applicable) to avoid repeating code. Remember however that inheritance must follow a natural relationship to its ancestors.

In the main program, there will be a menu that allows the user to:

1. Add new patient
 - a. Creates a new patient account object and asks user to supply the patient's personal information to populate this object
2. Display a patient's detailed bill.
 - a. Display a numbered list of patients' names
 - b. Asks user to select the patient's number
 - c. Display a detailed FORMATTED table of medications used, surgeries taken, and the charge of each item.
 - d. The table will display a total cost at the end of table.
3. Check out a patient
 - a. Display a numbered list of patients' names
 - b. Asks user to select the patient's number
 - c. The patient's record will be removed from the list of patients
4. Add surgery item to a patient's account
 - a. Display a numbered list of patients' names

- b. Asks user to select the patient's number
 - c. Display a numbered list of surgeries and their costs
 - d. Asks user to select the surgery to add
 - e. Adds the given surgery to the user's account
- 5. Add pharmacy item to a patient's account
 - a. Display a numbered list of patients' names
 - b. Asks user to select the patient's number
 - c. Display a numbered list of medications and their costs
 - d. Asks user to select the medication to add
 - e. Adds the given medication to the user's account

NOTE: 1st design your objects and let me review your design before going further