//uml (update)

//pseudo-code

Requirement specification:

The program simulates a hospital with a number of doctors and nurses that are inputted by the user. It simulates the amount of patients treated over the span of a week, based on a patient arrival rate that the user also enters. The program will display a menu after it has run through the simulation that allows the user to display all of the patients that had been treated over the week or search for a specific patient by name. After the user has made their choice and the information has been displayed they can either make another choice about searching or close the simulation.

Use Cases:

|  |  |  |
| --- | --- | --- |
| Steps | User’s Actions | System Response |
| 1 |  | Prompts the user to enter data about the number of nurses and doctors as well as the arrival rate for the patients. |
| 2 | Enters information about the number of doctors and nurses as well as the arrival rate of the patients. |  |
| 3 |  | System sets the enter data to their respective variables. The system then runs through the simulation with the given information. |
| 4 |  | The system prompts the user if they would like to display a table of the patients or search for a specific patient |
| 5 | The user enters their choice |  |
| 6 |  | The system searches and displays the information based on the user’s input |
| 7 |  | The system prompts the user if they would like to search for somebody else or close the simulation |
| 8 | The user enters their choice |  |
| 9 |  | The system will either close or go back to step 4 |