Overloading Functions

Write a program that computes and displays the charges for a patient’s hospital stay. First, the program should ask if the patient was admitted as an inpatient or an outpatient.

If the patient was an inpatient, the following data should be entered:

* The number of days spent in the hospital
* The daily rate
* Hospital medication charges
* Charges for hospital services (lab tests, etc.)

The program should ask for the following data if the patient was an outpatient:

* Charges for hospital services (lab tests, etc.)
* Hospital medication charges

**The program must use two overloaded functions (functions that have the same name but different parameters) to calculate the total charges.**One of the functions should accept arguments for the inpatient data, while the other function accepts arguments for outpatient information. Both functions should return the total charges.

The code must follow these guidelines:

* **Good style:** Use proper indentation and good naming conventions.
* **Usability:** Always prompt the user for input so they know what to do and provide meaningful output messages.
* **Input Validation:** The program should not accept invalid input, prompt the user to reenter an input that is invalid.
* **Documentation:** Add a comments that document what each part of your code does.
* **Testing:** Don't submit your solution until you have tested it. The code must compile, execute and produce the correct output for any input.

Submit only the .cpp file containing the code.