Extra credit:

*Here's to old RPI, her fame may never die.*

*Here's to old Rensselaer, she stands today without a peer.*

*Here's to those olden days,*

*Here's to those golden days,*

*Here's to the friends we made at dear old RPI.*

Part 1:

1.1 A server-side component written in a language such as PHP enables authentication and authorization. Users will need to authenticate, or verify themselves in order to gain access to a certain feature of the application. This could be as easy as having the user log in. Authorization is a proces sby which the server determines if the user has permission to access those features. Another feature is back-end form validation in which the server must respond to valid input and tolerate any invalid input without getting compromised. This should be done on top of an established front-end form validation. Another, perhaps the most basic reason is that serverpside components provide direct communication to the database. This introduces abstraction to the data stored in the database as well as a way to sync the data with the internet rather than the direct user who’s accessing the application.

1.2 For front-end, upon receiving inputs, the input must be correctly filtered otherwise the application is vulnerable to XSS attacks, where an attacker can input malicious script directly into the application. For back-end, lack of authorization and authentication can create serious security issues. Malicious users can take advantage of this and gain access to the data and functionality an existing account has and use that to perform unwanted actions or access resources that are deemed protected otherwise.

Part 2:

For you:

-If statement to check if ‘lname’ is declared and is not a NULL value;

-If the above statement is true, run this other if statement to check whether the value of ‘lname’ is blank.

-Set a variable called ‘pstmt’ to prepare the result of selecting all from the ‘customers’ table if the row’s lname is equal to ‘:ln’

-binds the parameter to the variable ‘pstmt’

-if ‘lnam’ is equal to blank, print out “lname not given, outputting entire file’’

-set a variable ‘pstma’ equal to prepare selecting everything from the table ‘customers’

-executes the prepared statement from ‘pstmt’

-prints out the results fetched from ‘pstmt’ row by row with columns ‘fname’ and ‘lname’

For my mom:

We want to display some names of customers on our computer screen, and we need to decide what we want to show depends on what information the computer has. If the computer can’t find any information about the last names, it doesn’t do anything. If it does, but the last name is empty, the computer will tell us that a last name was not given and display everything. Otherwise, it will tell us the first and last names of the customers.