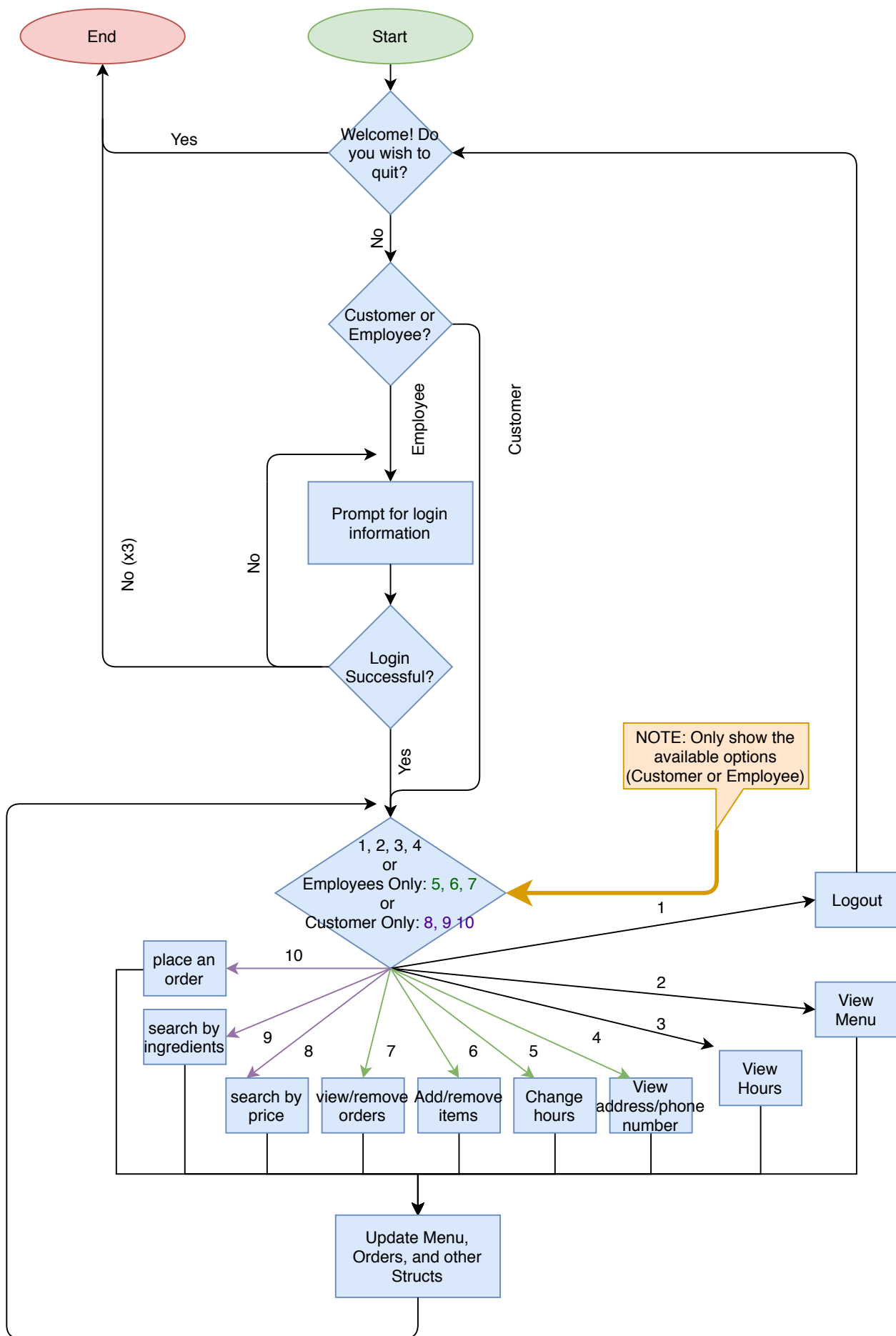# Understanding the problem

In your own words, explain what YOU think the problem is asking you to do. Document your uncertainties about the problem and anything else that you feel was unclear or vague

The problem is asking us to design a program for a pizza restaurant which will present different functionality depending on whether a customer or employee chooses to use it. Employees must first login to the system and have their id and password checked against data in a separate file. After the user identifies themselves as employee or customer, they are then presented with options to view the menu, place orders, add menu items, etc... Some of these options are exclusive to either the employee or the customer. The user may also may logout and return to the welcome screen at any time. After making a choice, the user is then redirected to the prompt menu for further options until they decide to logout and then quit the program.

Devising a plane/design

Provide an algorithm/pseudo code to help solve the problem. In addition, draw pictures/flow charts to help you devise your plan, as well as any other design decisions you make, such as how to manage your time, how to decompose the problem, where to start first, etc.

See flowchart on next page

```
End                    Start

                    Welcome! Do
            Yes     you wish to
                    quit?

                         No

                    Customer or
                    Employee?

                Employee            Customer

         No      Prompt for login
                 information

                    Login
                    Successful?

                                        NOTE: Only show the
                         Yes            available options
No (x3)                                 (Customer or Employee)

                    1, 2, 3, 4
                    or
            Employees Only: 5, 6, 7                    1        Logout
                    or
            Customer Only: 8, 9 10

    place an        10
    order                                              2        View
                                                                Menu
    search by                 9
    ingredients                                   4    3
                          8        7        6    5
                                                        View Hours
         search by  view/remove  Add/remove  Change  View
         price      orders       items       hours   address/phone
                                                      number

                    Update Menu,
                    Orders, and other
                    Structs
```

Looking back / testing

This includes any checking/self-reflection you did while solving the problem, which includes using a calculator to make sure the output is correct, testing to make sure your code executes correctly and behaves the way you expect under specific circumstances, using sources of information to make sense of the results, etc. However, you need to think about the input prior to implementation!!!

Input	Expected
Incorrect id: asdflj;lkj	could not find login information. please try again
Incorrect pass: asdfasdfas	Password does not match our records: Please try again
Incorrect pass (x3)	You failed to log in. (Quit program)
Choose an option: 1	Return to welcome screen
Choose an option: 2	Print out the menu
Choose an option: 3	Print out hours of service
Choose an option: 4	Prompt for address or phone number
Choose an option: 5	Prompt for open and close times
Choose an option: 6	Prompt: Would you like to add or remove menu items?
Choose an option: 7	Prompt: Would like like to view or remove orders?
Choose an option: 8	Prompt: Please enter the maximum amount you wish to spend ($)
Choose an option: 9	Prompt: Please enter an ingredient to search by.
Choose an option: 10	Prompt: Please enter the name of the pizza you would like to order.