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#imports#
#
import webbrowser
#
#variables#
#
login_details = -1
url_test = "https://www.google.com/maps/search/" # Default google maps url
#
#definitions#
#
def return_file():
    with(open("data.txt","r"))as(file): # Opens the file as "file"
        data = eval(file.read()) # Turns the string file into a readable list ()
    # File closed with sub-proccess
    return(data) # Returns the list
#
def login():
    username_passwords = return_file()[0] # Collects username/passwords from the file.
    username_input = input("username-: ")
    password_input = input("password-: ")
    for(user_data)in(username_passwords):
        if(username_input==user_data[0] and password_input==user_data[1]):
            username_passwords = username_passwords.index(user_data)
    return(username_passwords) # Returns all of the usernames and passwords
#
def display(data): # Essentially another print() but in a different format. the argument "data" is a list of strings to be printed.
    print("\n"*100)
    print("[   {|>=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=<|}   ]") #                          #
    print("[   {|- - - - - - - - -[ FOODBOT ]- - - - - - - - -|}   ]") # Displays the foodbot topbar #
    print("[   {|>=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=<|}   ]") #                          #
    print("[   {|"+(" "*45)+"|}   ]")
    for(data_packet)in(data): # Loops round each given line to print.

################################################################################
        # The block of code below aligns the text into the middle of the menu #

################################################################################
        _len = (" "*round((45-len(data_packet))/2))
        end_result = "[   {|¬"+_len+data_packet+_len+"¬|}   ]"
        split_results = end_result.split("¬")
        if(len(end_result)>59):
            end_result = split_results[0]+split_results[1][1:]+split_results[2]
        elif(len(end_result)<59):
            end_result = split_results[0]+" "+split_results[1]+split_results[2]
        else:
            end_result = split_results[0]+split_results[1]+split_results[2]
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        print(end_result)

##########################################################################
    print("[   {|"+(" "*45)+"|}   ]")
    print("[   {|>=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=~=<|}   ]")
    print("\n"*5)
#
def open_website(food,location):
    display([
            "Results for "+food+" in "+location+".",
            "Would you like results for","currently open restaurants?","","",
            "(0) EXIT          ","",
            "(1) YES           ","",
            "(2) NO            ","","","",""
        ])
    input2 = input("~=> ")
    while(input2 not in ["0","1","2"]): # Waits until the user inputs a valid number.
        input2 = input("~=> ")
    if input2 == "0":return  # If 0 is pressed the webbrowser module will not be called and the first menu is shown
    webbrowser.open(url_test+food+"+"+location+({"1":" open"}.get(input2) or"")) # Adds data onto the end of a url to change the search filter on google maps.
#
def location():
    locations = return_file()[1] # Opens the file list, selecting all items in the nested array.
    data = [[],["PLEASE SELECT ONE OF","THE FOLLOWING LOCATIONS",""],[],[]]
    for key in locations: # Adds all of the locations to a list accessible via the display() function
        data[1].append("")
        index = str(list(locations).index(key)+1)
        text = "("+index+") "+key
        data[1].append(text+ " "*(35-len(text)))
        data[2].append(index)
        data[3].append(key)
    display(data[1])
    input2 = input("~=> ")
    while(input2 not in data[2]):
        input2 = input("~=> ")
    data[3] = data[3][int(input2)-1]
    data[0] = locations.get(data[3])
    return data # Returns "data"; the selected location.
#
def food_type_tab(typeoffood,location_data): # Displays the type of food depending on what location was selected.
    file = return_file()[2].get(typeoffood)
    print2 = [typeoffood.upper()]
    list2 = []
    minus = 0
    for item in file:
        if item not in location_data[0]: minus+=1;continue
        index = file.index(item)+1-minus
        text = "("+str(index)+") "+item
        text = text + " "*(15-len(text))
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94          print2.append("")
95          print2.append(text)
96          list2.append(str(index))
97      text = "(0) RETURN" ###### vv
98      print2.append("")
99      print2.append(text+ " "*(15-len(text))) # Adds another option onto the
          last slot in the menu with the option to EXIT/RETURN to the previous
          'slide'
100     list2.append("0")
101     display(print2)
102     input2 = input("~=> ")
103     while(input2 not in list2):
104         input2 = input("~=> ")
105     if input2 == "0": return # Returns nothing as the menu has been exited.
106     else:
107         return(file[int(input2)-1]) # Returns list of food in set locations
              and their type.
108
109 #
110 #maincode#
111 #
112 for(index)in(range(3)): # Goes through a loop 3 times expecting login_details
      to be set to anything other than -1 which means it is logged in.
113     login_details = login()
114     try:
115         if(login_details>-1):
116             print("Successfully logged in.\n")
117             break
118     except:
119         print("ERROR! You have entered an incorrect username/password.")
120         try:
121             print("You have "+["Two","One"][index]+" attempts remaining.\n")
122         except:
123             print("You have entered an incorrect username/password 3 times,
                program exitting.")
124             login_details = -1
125 #
126 while(login_details!=-1): # If login_detials is set to anything other than -1
      then the program has recognised that the user is logged in and they gain
      access to the full program.
127     location_data = location()
128     print(location_data)
129     while(location_data):
130         display([ # First display, showing each available food type
131             "Welcome to the foodbot",
132             "What food are you interested in?","","","",
133             "(0) EXIT          ","",
134             "(1) italian       ","",
135             "(2) chinese       ","",
136             "(3) fast food     ","",
137             "(4) western food  ","","",""
138         ])
139         input2 = input("~=> ")
140         while(input2 not in ["0","1","2","3","4"]):
141             input2 = input("~=> ")
142         if input2 == "0":
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143             print("goodbye")
144             login_details=-1
145             break
146         chosen = food_type_tab(["italian","chinese","fast food","western
              food"][int(input2)-1],location_data) # Calls the food_type_tab()
              function expecting a value seelected from the food list.
147         if not chosen: continue
148         else:
149             open_website(chosen,location_data[3]) # Opens the website function
                  sending through all required data
150 #
```