APPENDIX 1

TITLE OF PROJECT

END TERM REPORT

by

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APPENDIX 2

Student Declaration

This is to declare that this report has been written by us. No part of the report is copied from other sources. All information included from other sources have been duly acknowledged. We aver that if any part of the report is found to be copied, we are shall take full responsibility for it.

Signature:
Name: Ansh, Mayank
Roll Number: 35, 31

Place: Phagwara
Date: 17-10-2020

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BONAFIDE CERTIFICATE

Certified that this project report “New LPG connection and LPG booking system” is the bonafide work of “Ansh Joshi, Mayank Rana” who carried out the project work under my supervision.

<<Signature of the Supervisor>>(Due to Covid 19, signature is exempted)

Dr Dhanpratap singh

25706

School of Computer Science and Engineering

Background

Python is a programming language developed in year 1989 by Guido van Rossum at Centrum Wiskunde & Informatica. Though it has emerged as a leading language just few years back. Python programs are easy to understand and are almost in plain English. Anyone who does not have prior knowledge of programming can also understand its program. We have been learning python in 3rd semester.

As the assignment work, we all have been allotted different projects. Our project for python work was 'New LPG connection and LPG booking system'. We firstly decided the design of our project. Then we divided our project into modules and decided the libraries to import and tools we would use and all the widgets we are going to use.

After making the whole design, we did the coding, which was easy, because we had already decided everything in the design. We implemented all the widgets and modules and windows, and we finished our coding easily.

We managed our back-end information with the help of file handling. We had already entered the data of customers in a text file and the program checks the data from this file, and in case of adding any new customer also, it writes back the data to the file.

Our testing phase took much longer time because we had to check for every value and see if there is any bug. It took longer than we expected but we had finished the work way before the deadline.

Motivation

As we could not meet physically, hence we had decided and made the whole project online through talking on phone. Our sole motivation for making this project was that we got to learn a lot about the python and tkinter, about their working.

There were times when we encountered many problems and we thought that our project could not be completed, but we overcame everything and completed it.

For the successful completion of this project, we had been helped by many individuals along the way. Firstly, starting with God almighty and our teacher, Dr Dhanpratap Singh. Our parents and friends also helped us a lot and they also had been a constant source of our motivation

Learning outcome

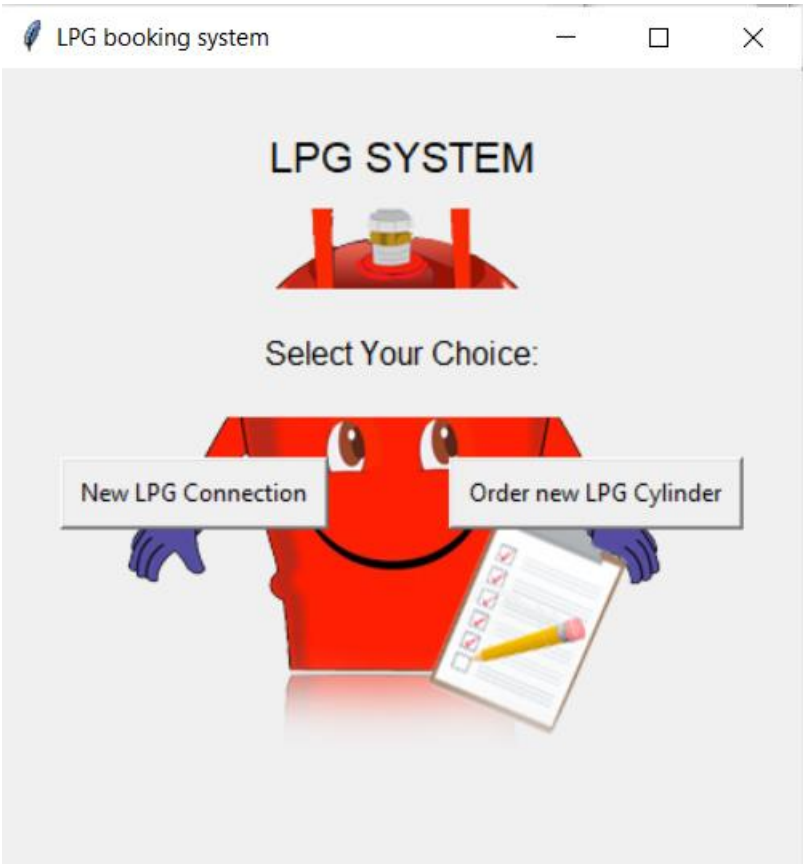
The biggest outcome of the project was the clarification of all the concepts of python tkinter. We now have full grip over almost all the concepts of tkinter, as we had implemented all the widgets of python.

We also learnt about how to make the program i.e., firstly designing, then coding and then testing the project. We learnt all the widgets of python and their implementation and working. We learnt about what features go with each widget and where to place them.

We also did learn about different frames that are there in the tkinter, how to define functions in tkinter, how to pop new window in the program and how to generate the floating window messages.

Description

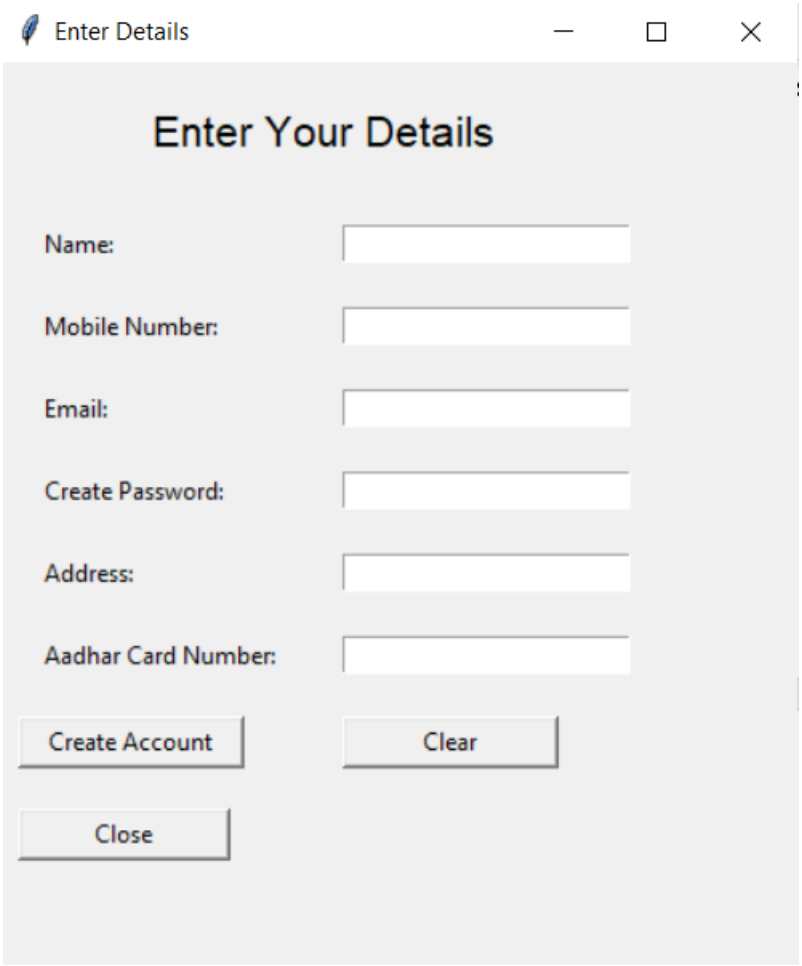
Our project name is “new LPG connection and LPG booking system”. So, we decided to make our front window displaying our main motive behind the project. Our front window has 2 buttons having options to choose between new LPG Connection or to Order new LPG cylinder. User can choose either of the options are per his/her requirement.



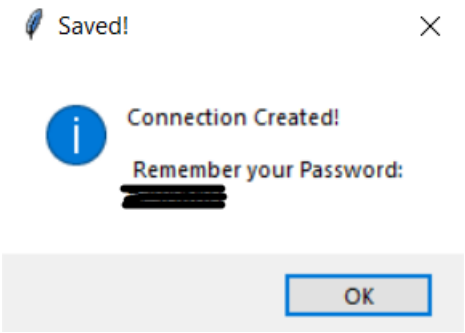
Each of the button takes you to 2 different windows. If you select the button of ‘new LPG connection’ then you will be taken to another window where you will be required to enter your details such as Name, mobile number, Aadhar card number, email id, create password, and address.
While filling the forms, we need to keep in mind these things: -

- Mobile number must exactly be of 10 digits and should not contain any alphabets.
- Moreover, email id must also contain ‘@’ symbol, i.e., do not enter pseudo email or short email.
- Also, password must be of 8 digits at least.
- The last thing to keep in mind is that Aadhar card number must also be of 12 ‘digits’.

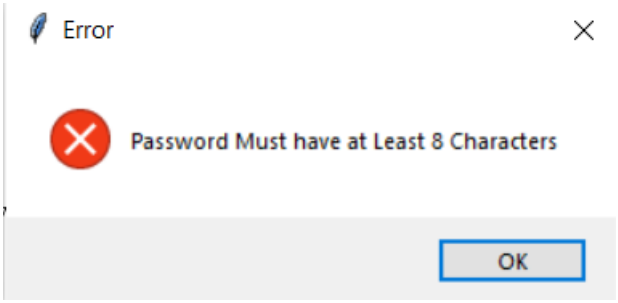
When you will click on create account button, then it will feed all your information into a text file, where it can be accessed for the future use, and while booking new LPG cylinder
Close button will close the given window and clear will clear all the data entered.



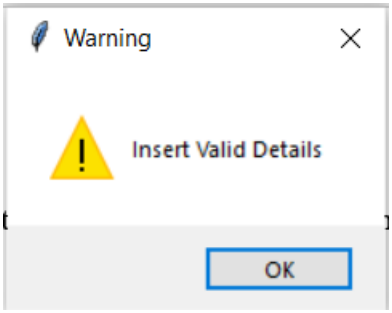
Once your account is successfully created, this message will be displayed, which will show your password and say you to remember it.



If you enter password shorter than 8 digits, then following message will be displayed

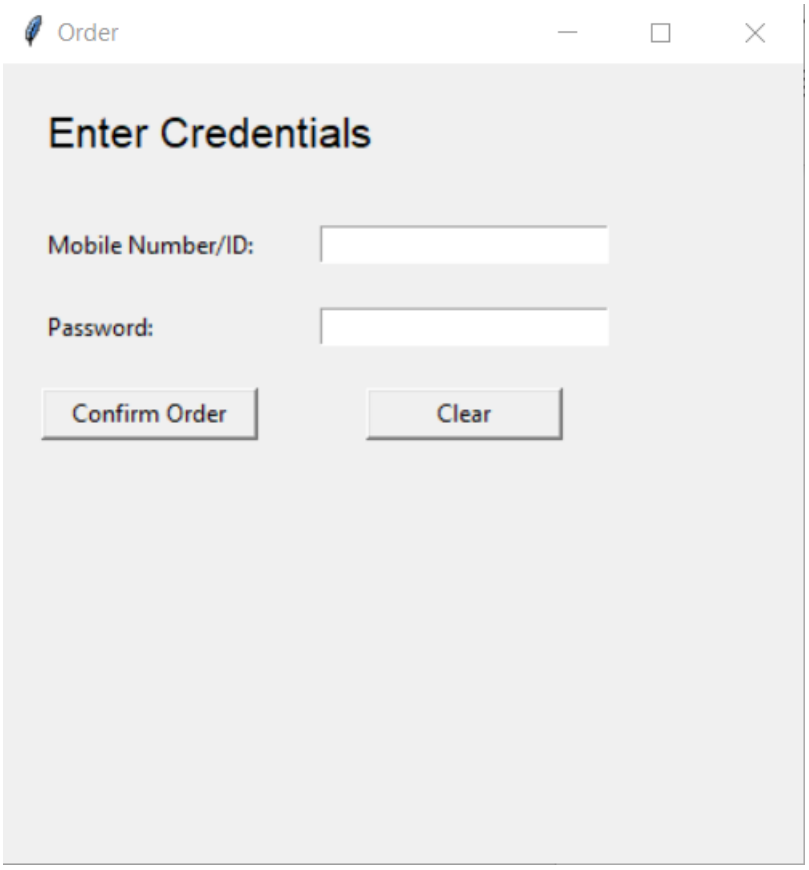


As already mentioned above, length of password should be at least 8 digits.
Also, if other details such as including alphabets in numbers or not including '@' in your email id then also a message will be displayed as shown below: -

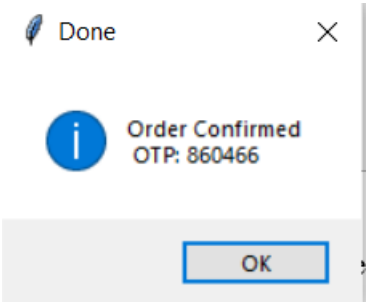


Other button will take you to another window for ordering the LPG cylinder where you will be required to fill your details. After filling all the data, you are required to click on Confirm order. Then our system will check at back-end whether the data entered by the user is correct or not. If the data entered is correct then it will generate a random OTP for you, which will be your order number.

The same code will be sent you the representative selling cylinder also, hence he will verify whether the same code is there or not. If the OTP code is found same, then you can take your LPG cylinder, otherwise not.

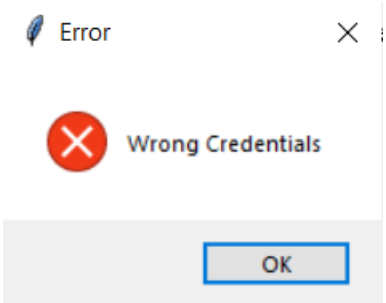


The OTP generated will be completely random, and hence there are little to no chances of copying of the OTP.



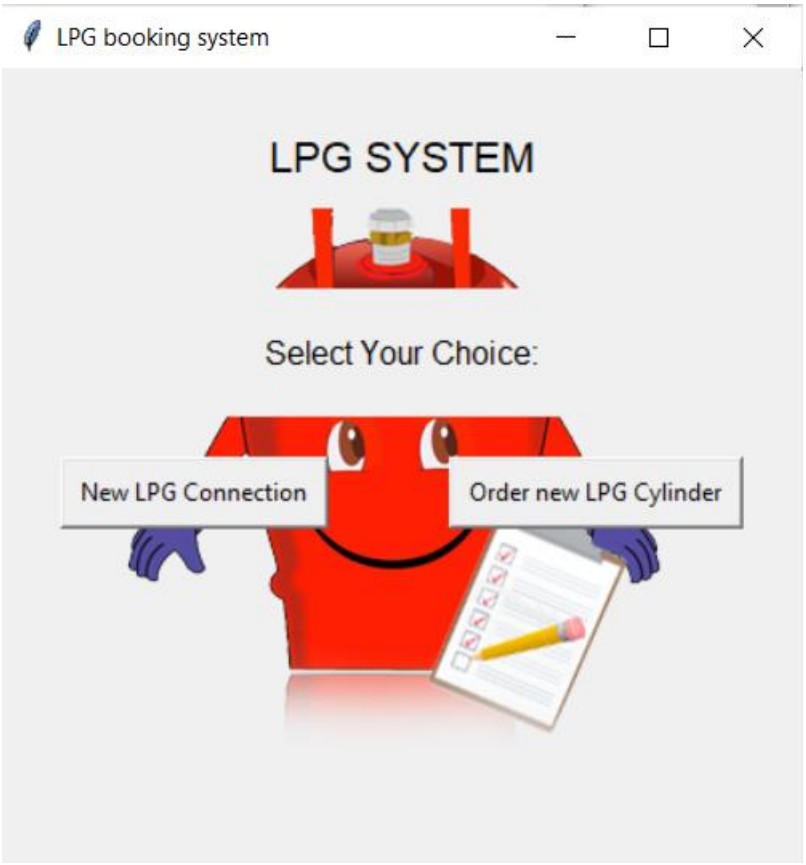
This will be your OTP or order ID, which you will show to the respective representative to get your cylinder.

In case your credentials are wrong, then this message will be displayed.



Framework used

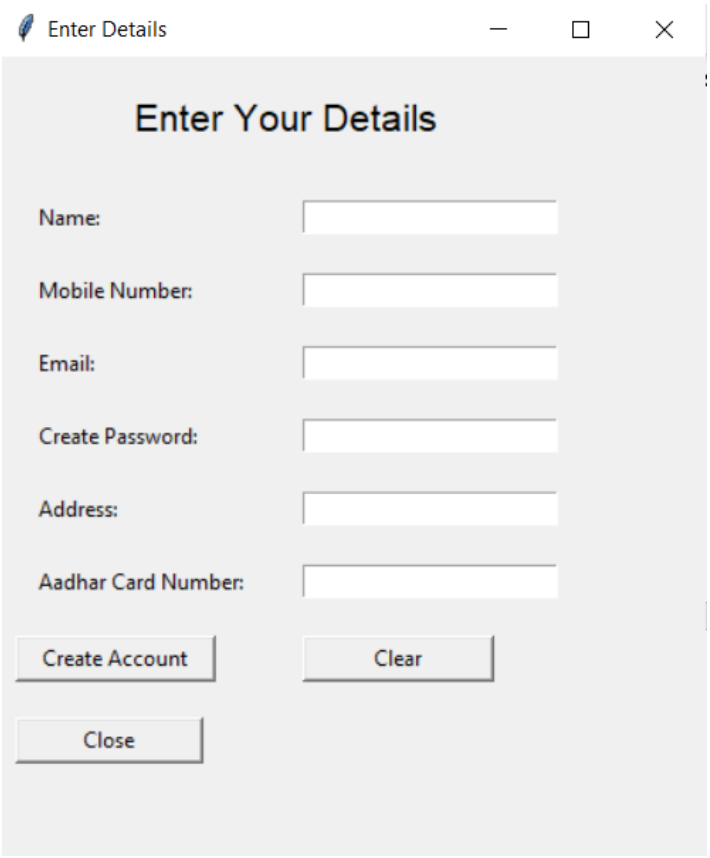
Now talking about all the framework, we have used in the project. In the first window i.e.,



In this window

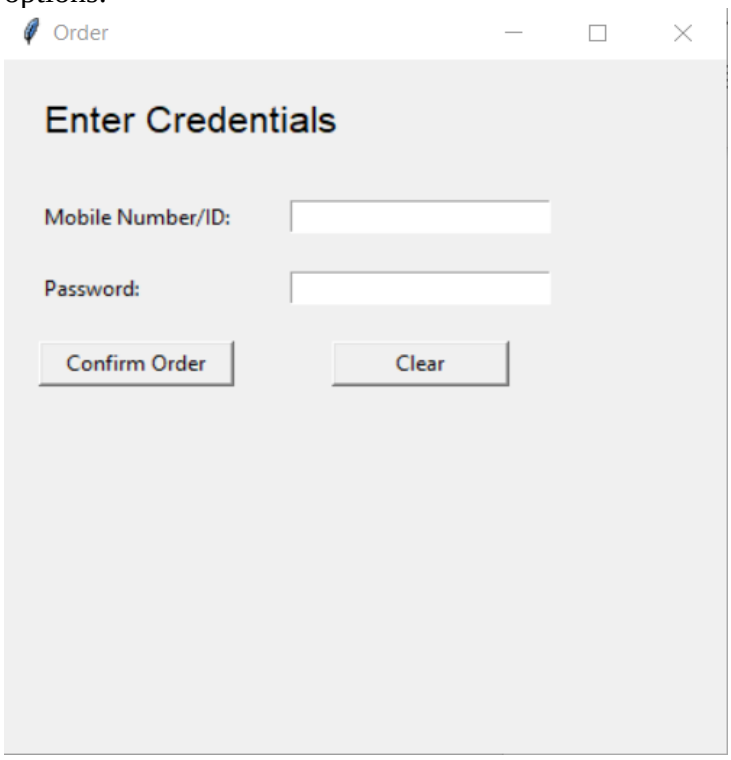
- Firstly, we had used, one top label for LPG system with font as ‘Helvetica’. Then coming down, we have another label which reads “Select your choice”. As these are labels, hence we cannot alter the text stored in them.
- Then comes 2 buttons, namely “New LPG connection” and “Order LPG cylinder” respectively.
- These are executable buttons with function names ‘new_con_lpg’ and ‘order_lpg’ respectively.
- These are the names of the functions which will further get called when each of these buttons will be clicked.

Upon clicking on New LPG connection, another window pops up with entry filling form. It has a label on top that says, “Enter your details”. It is the top-level label which tells us about the work to do.



- Here, we have many other labels, including Name, Mobile number, email and many more, as you can see in the given picture alongside.
- In front of all these labels we have ‘Entry’ widgets, which are text fields of tkinter, here we will enter the data that we wish to enter.
- Constraints on entering the data have already been mentioned beforehand.
- This entry tag has an option textvariable, where the information we entered will be stored for further processing.
- Upon clicking create account all the data entered by user will be stored in the text file, with the help of textvariable.

Upon clicking “Order new LPG cylinder”, another window pops up with the following options: -



- Here, enter credentials is written in label, hence it is non alterable.
- Also, Name and Password are entered inside labels, hence they are also non alterable
- The area given in front of them is known as Entry field, when we can enter the data, which it will store in textvariable option inside it
- From there, the data entered in textvariable will be checked with the previous file and if same set of data is there, then we are given an OTP, which will be our serial number for getting the LPG.

Test cases used

In our project we have used many test cases, and all the test cases worked according to our requirements. We started with filling different types of information in the entry tags of creating accounts, and all the information, if correct gets stored in the file, as per the requirements. Then we cross checked it with same information in the ordering LPG window, again we got the expected the result. Then we checked the information of entering different passwords and verifying if it shows output to only correct password or not. Still we were getting the same result as we wanted, with program accepting only those values that are true. We checked the same with other fields and yet our result came as expected.

Bibliography

For the successful completion of our project, we mostly referred to our teacher's notes and videos only, as they had enough resources and information required for solving each doubt that we encountered. But still a lot of other resources helped us, such as: -

- www.geeksforgeeks.org
- www.tutorialspoint.com
- www.javatpoint.com
- www.wikipedia.org

Conclusion

We invested a lot of time in making this and we also learnt many new things. We learnt how to make a project and overall, this project helped us to grow in many innumerable ways.

Our project was to make an LPG connection and delivery system. Hence, we made opening window for user's option. Furthermore, we made different windows for each of user's choice and hence further coding.

Our hypothesis was that we should be able to generate an order number for each delivery, which the user might show to the other person and get the LPG. Also, we expected that we should be able to add new customers. Our result supports our hypothesis. And hence our system of booking works completely fine.

We think that the tests we did went smoothly, and they show no problem with the booking system.

We hope that you liked our project.

Thank you……