



K. J. Somaiya College of Engineering, Mumbai-77

Batch: A3

Roll No.: 1911039, 1911041, 1911942

Python Mini Project Report

Grade: AA / AB / BB / BC / CC / CD / DD

Signature of the Staff In-charge with date

TITLE: Python Application Development

AIM: To develop a python application for a real-world problem

Books/ Journals/ Websites referred:

1. <https://www.w3schools.in/python-tutorial/gui-programming/>
2. https://www.tutorialspoint.com/python/python_gui_programming.html
3. <https://docs.python.org/3/library/tkinter.html>
4. <https://www.geeksforgeeks.org/python-gui-tkinter/>

GitHub Link of Project files:

<https://github.com/pjayakar/Airline-Reservation-System.git>

Problem definition: To develop an airline reservation system where a user can book a flight to a desired location and can have the option of web check-in as well.

Scope:

The objective of the project is to design an Airline Reservation System application which enables the customers to search and book flights. This project is built with open-source technologies of python.

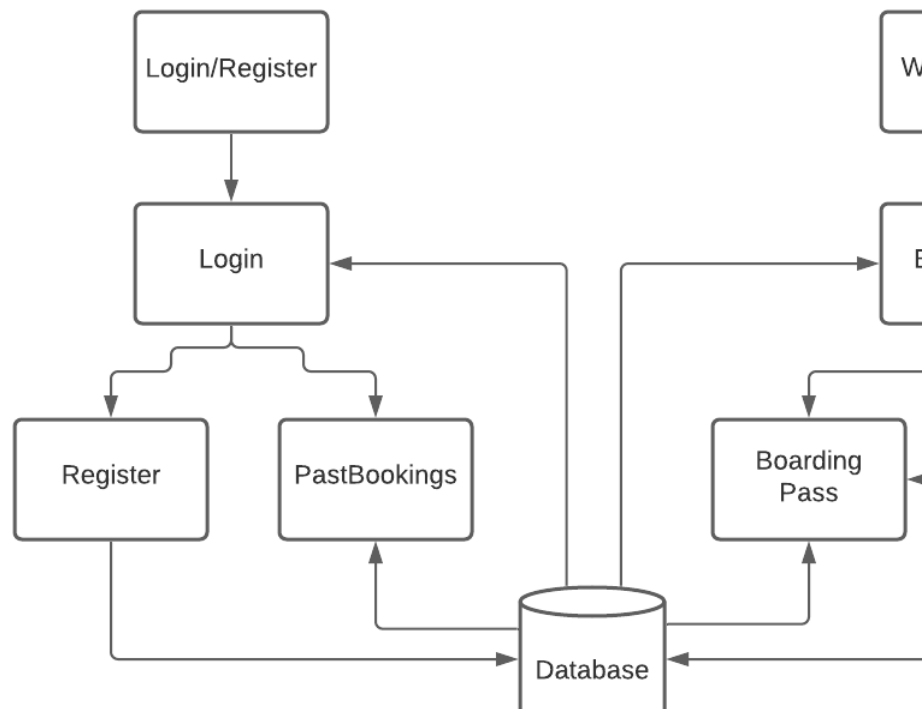
The main functionalities are:



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- Login/Register
- Web Check-in
- Book Ticket
- Access Past Bookings

Component diagram:



API or package used:

- **Tkinter:** standard Python interface to the Tk GUI toolkit
- **MySQLdb:** An interface to the popular MySQL database server that provides the Python database API.
- **Pillow:** The Python Imaging Library adds image processing capabilities to your Python interpreter. This library provides extensive file format support, an efficient internal representation, and fairly powerful image processing capabilities.



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- **Datetime:** Supplies classes for manipulating dates and times
- **Json:** Encoding and decoding JSON data
- **String:** For string manipulation
- **Random:** Implements pseudo-random number generators for various distributions
- **Tkcalendar:** Python module that provides the Calendar and DateEntry widgets for Tkinter

Difficulties faced and measures taken to resolve:

- **Problem:** The placement of widgets:
- **Solution:** Trial and error method to place the widget in the intended location
- **Problem:** Get or extract a value of one button from multiple buttons due to use of for loop for buttons.
- **Solution:** Research was done and lambda function was implemented
- **Problem:** The placement of image in the frame at the top level
- **Solution:** Instead of using .grid we used .place
- **Problem:** Addition of the background image in the full screen and resizing the image
- **Solution:** Imported Image and ImageTk from PIL

Team work (Contribution of each member):

1. Priyal: Whole segment of booking process
2. Hinal: Whole segment of login / registration process
3. Pinaki: Whole segment of web check in process



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