

# ADVANCED PROGRAMMING IN PYTHON

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## Train Management System

Group 11

# About Us

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# CONTENTS

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1. Introduction
2. Structure
3. Demo
4. Conclusion

# 1. INTRODUCTION

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1.1. About Train Management System

1.2. The Importance of Train Management System

1.3. How The Train Management System Works

# 1.1. About Train Management System

Nowadays, train is one of the most **important transportations** all around the worlds. Therefore, the need of making a **logical, easy-to-control** system for all activities related to the railway is fundamental across the countries.

**Train Management System (TMS)** is a **system** implemented for integrated **management** and monitoring of suburban **train** movements and signalling, as well as planning **train** routes and diversions.



## 1.2. The Importance of Train Management System

In the real situation, the Train Management System can help administrators and clients in:

1. Keeping every information related **up-to-date**
2. Editing details about train aspects **timely**
3. Making a **logical system** for better management



## 1.3. How The Train Management System Works

1. **Scope:** Vietnam Railway
2. **Requirements:**
  - **The Administrators:** search/check, change and update train-related information (schedule, station, etc.)
  - **The Clients:** Check information about trains according to own needs, buy tickets as well as check tickets.





## 2. STRUCTURE

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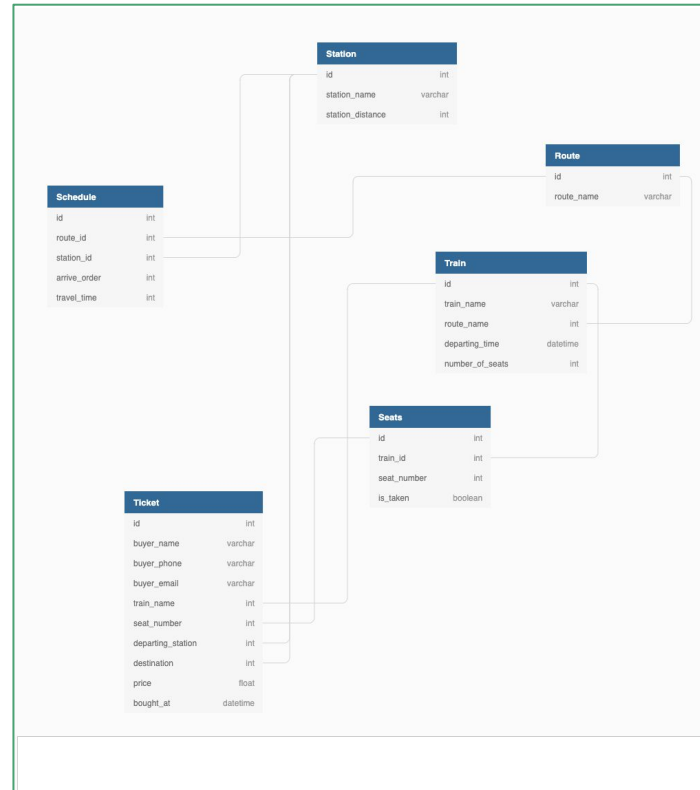
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2.1. Database

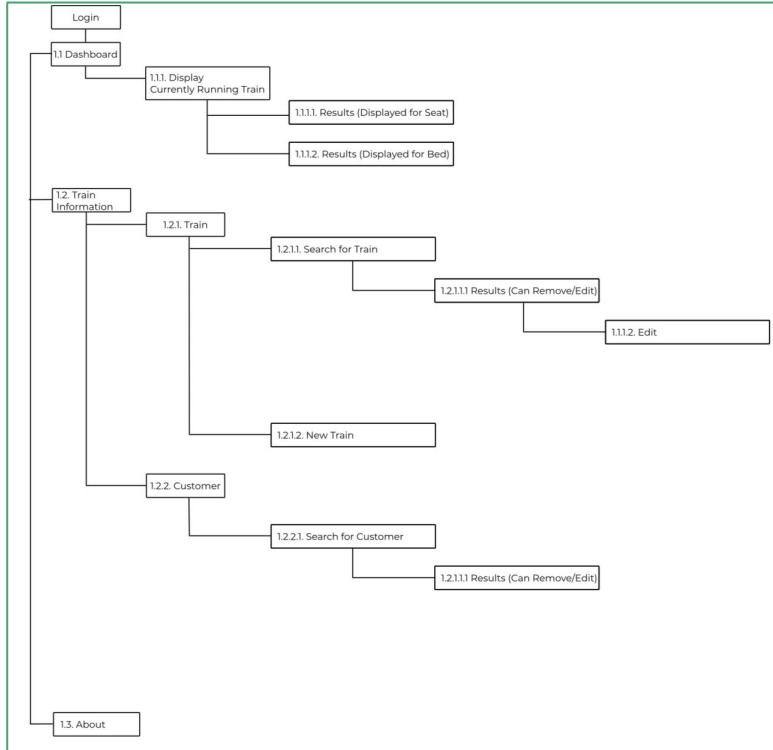
2.2. UI Structure

2.3. Python Modules, Classes, Input and Output

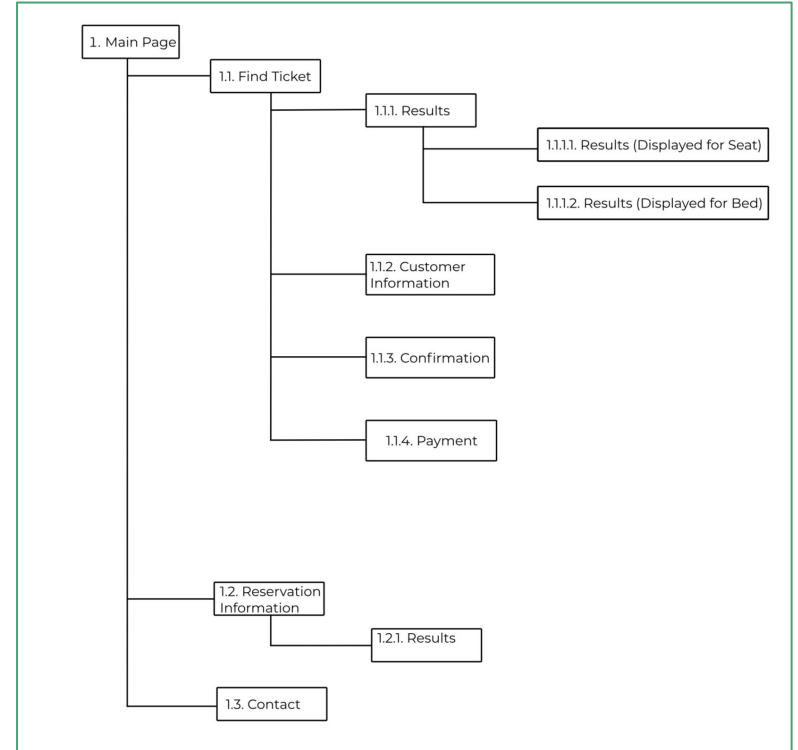
## 2.1. Database



## 2.2. UI Structure



Admin UI Structure



Clients UI Structure

## 2.3. How We Create

- For UI:
- + Use Figma to present UI
- + Use Tkinter to code in Python
- For Database:
- + Use Django for storing TMS Database

# 3. DEMO

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## 4. CONCLUSION

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## 4. CONCLUSION

- Finished:
- + Successfully create database and UI
- Some Improvements:
- + More logical and nicer UI
- + Some functions not working: create ticket, etc.
- + More effort on creating better functions for Administrators as well as Clients.