

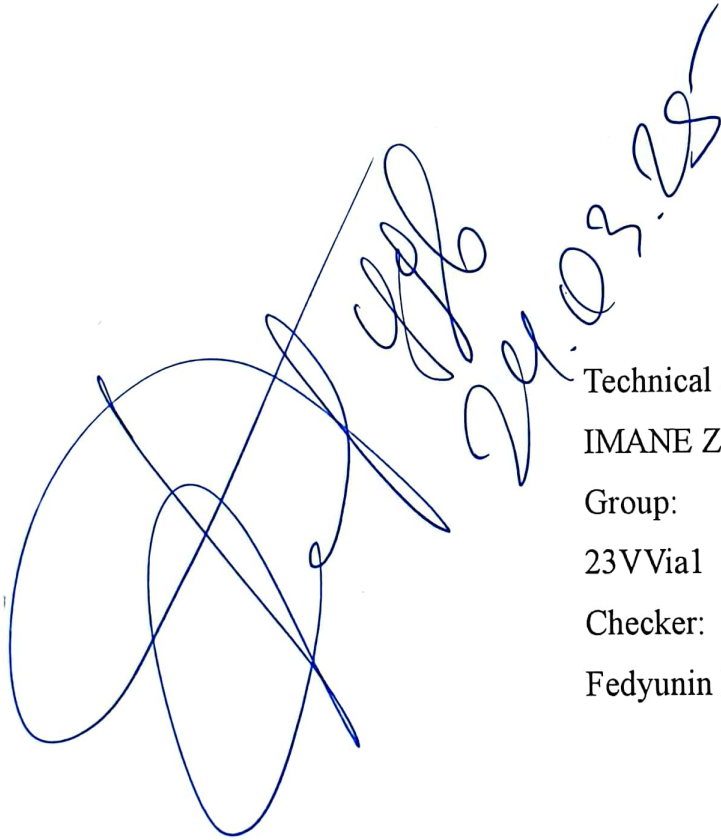
Ministry of Science and Higher Education of the Russian Federation

Penza State University

Department of Computer Engineering

REPORT on the course work

Topic «Development of a program using data structure algorithm»



Technical executor:

IMANE ZOUGAR

Group:

23VVia1

Checker:

Fedyunin R.N.

Penza

2025



APPROVED

Head Department of VT

_____ M.A. Mitrokhin

«____»_____ 2025 year

THE TASK LIST

for the course task

Logic and basic of algorithmization in engineering problems

Student Imane Zougar, Group 23VVia1

Project topic: Development of a program for managing a restaurant using the programming language python.

Mandatory program requirements:

1. python.
2. pycharm.
4. Information input device – keyboard.
5. linked list .
6. Stack.
7. Queue.
8. Tree.

Scope of work for the course

Alghorithm part

Program development.

Experimental part

Debugging the program.

Project completion time by section

According to schedule.

The date of issue of the task is "march 13", 2025.

Project defense date "___" _____

Teacher Fediunin R.N. _____

Received the task on march 15, 2025.

Student Imane Zougar. _____

Topics

Menu management system.....	5
Order processing system.....	5
Inventory management.....	5
Reservation system.....	5
Billing system.....	6
Costumer feedback management.....	6
Staff management.....	8
Sales reporting system.....	9
Loyalty program management.....	9
Online ordering system.....	10

~~A~~bstract

Here are some potential topics for your restaurant management system project:

1. Menu Management System:

- Focus on creating, updating, and deleting menu items, including their descriptions and prices.

2. Order Processing System:

- Develop a system that handles customer orders, including creating, viewing, and completing orders.

3. Inventory Management:

- Manage ingredients and supplies, tracking stock levels and notifying when items need to be reordered.

4. Reservation System:

- Implement a system for customers to make reservations, including managing available tables and times.

5. Billing System:

- Create a system to calculate the total bill for orders, including taxes and tips, and generate invoices.

6. Customer Feedback Management:

- Allow customers to leave reviews and feedback on dishes, helping the restaurant improve its offerings.

7. Staff Management:

- Manage staff schedules, roles, and payroll, ensuring efficient operations within the restaurant.

8. Sales Reporting System:

- Generate reports on sales, popular dishes, and customer preferences for better business insights.

9. Loyalty Program Management:

- Implement a loyalty program for frequent customers to earn points and rewards.

10. Online Ordering System:

- Develop a feature that allows customers to place orders online for pickup or delivery.

