

# TUCKOS- TUCKSHOP MANAGEMENT SYSTEM

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GITHUB REPO LINK: <https://github.com/generator45/Tuckos>

## Overview

Tuckos is a web app that streamlines food ordering at the Tuck Shop, reducing crowding. It enables easy online orders, ensuring convenience, faster service, and a smoother user experience.

## Goals:

- 1) Simplify Food Ordering: Digitize the Tuck Shop ordering process using a user-friendly web app built with Java and C++ for seamless functionality.
- 2) Enhance Efficiency: Utilize Object-Oriented Programming principles to design robust, modular, and scalable features for order management.

- 3) Enable Real-Time Communication: Implement REST APIs with Spring Boot for smooth back and front-end interaction, ensuring quick data exchange.
- 4) Ensure Accessibility: Host the app on Postman to facilitate easy API testing and integration for consistent performance.
- 5) Promote Modern Solutions: Leverage advanced technologies like Spring Boot to create a secure, reliable, responsive ordering platform.
- 6) Provide Scalability: Use OOP principles to ensure the app can handle increasing user demands without performance issues.
- 7) Optimize Workflow: Streamline kitchen operations with real-time order notifications, reducing preparation delays and improving service speed.

## DATABASE SCHEMA:

### Student Table

Column	Data Type	Constraints
rollNo	VARCHAR(15)	PRIMARY KEY
password	VARCHAR(255)	
studentName	VARCHAR(255)	

### Item Table

Column	Data Type	Constraints
itemId	INT	PRIMARY KEY
itemName	VARCHAR(255)	
price	INT	
itemDesc	VARCHAR(255)	
imgUrl	VARCHAR(255)	

## Inventory Table

Column	Data Type	Constraints
itemId	INT	PRIMARY KEY , FOREIGN KEY REFERENCES Item(itemId)
quantity	INT	

## OrderHistory Table

Column	Data Type	Constraints
orderId	INT	PRIMARY KEY
rollNo	VARCHAR(15)	FOREIGN KEY REFERENCES Student(rollNo)
order_date	DATE	
order_status	BOOLEAN	

## OrderItem Table

Column	Data Type	Constraints
orderId	INT	PRIMARY KEY (orderId, itemId), FOREIGN KEY REFERENCES OrderHistory(orderId)
itemId	INT	PRIMARY KEY (orderId, itemId), FOREIGN KEY REFERENCES Item(itemId)
quantity	INT	
price	INT	

## Resources:

This project relies on several key resources to ensure successful implementation and understanding of concepts:

1. Rest API in Spring Boot:

<https://medium.com/javajams/creating-a-rest-api-in-spring-boot-68ce785f652f>

2. Java Persistence API (JPA):

<https://docs.oracle.com/javaee/7/api/javax/persistence/package-summary.html>

3. SQL Tutorial: <https://www.w3schools.com/sql/default.asp>.

## Project Setup:

Clone the repo link :

<https://github.com/generator45/Tuckos>

This project requires setting up a development environment with the following tools and configurations:

1. Install maven for build automation and dependency management.

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2. Install postgresSQL for database connection.

3. Setup application.properties file by adding the variables:

- **spring.datasource.url**: postgres db connection url
- **spring.datasource.username**: postgres username
- **spring.datasource.password**: password for the user

4. To run project locally:

```
mvn spring-boot:run -Dspring-boot.run.fork=true
```

Now you can test this using PostMan.

