

SCTR's Pune Institute of Computer Technology  
Dhankawadi, Pune

**A MINI PROJECT REPORT ON**  
Restaurant Management System UML diagrams

Under the guidance of  
Prof. Laxmi Pawar



DEPARTMENT OF COMPUTER ENGINEERING  
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**Title:**

Restaurant Management System

**Team:**

1. Burhanuddin Merchant - 41439
2. Mehul Oswal - 41444

**Theory :**

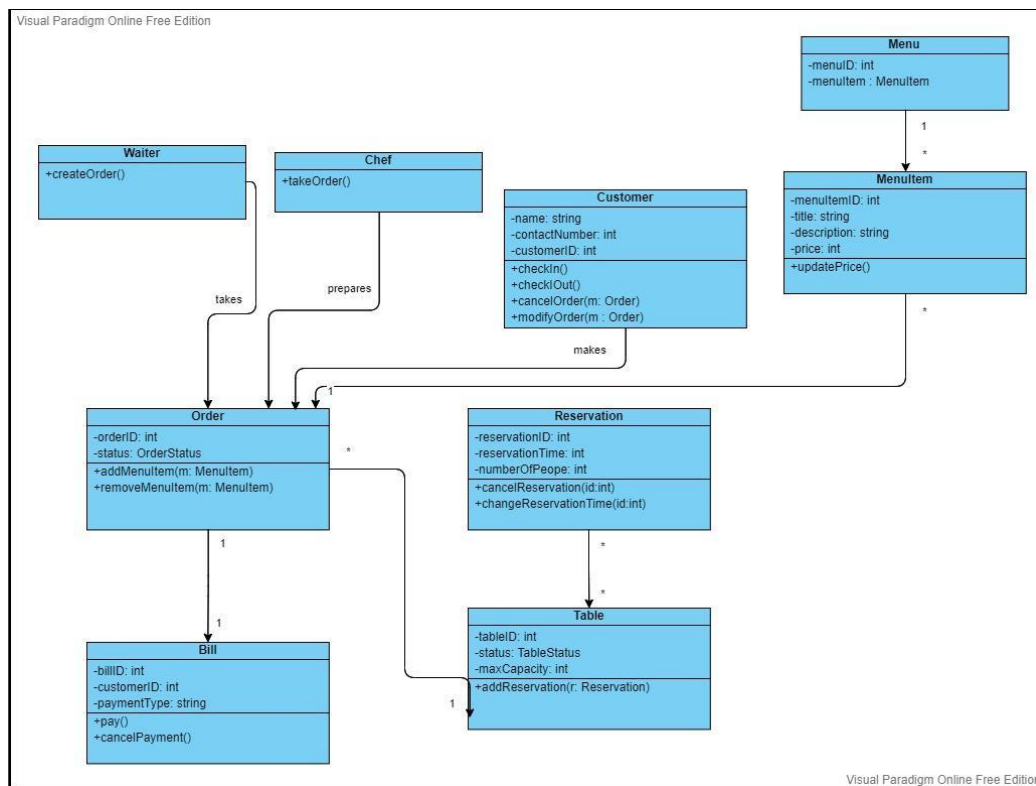
- UML (Unified Modeling Language) is a general purpose modeling language which was adopted as a standard in 1997
- UML is not exactly a programming language, but a visual language
- It helps in visualizing a system's design using a set of conventions and rules
- UML helps businesses, architects and engineers for
  - Modeling
  - Design
  - Analysis
- Need for UML -
  - Complex applications necessitate collaboration and planning from multiple teams, entailing a clear and concise means of communication among them.
  - Code is not understood by businesspeople. As a result, UML becomes essential for communicating the system's essential requirements, functionalities, and processes to non-programmers.

- When teams can visualize processes, user interactions, and the system's static structure, they save a lot of time in the long run.

## Diagrams :

### (i) Class diagram

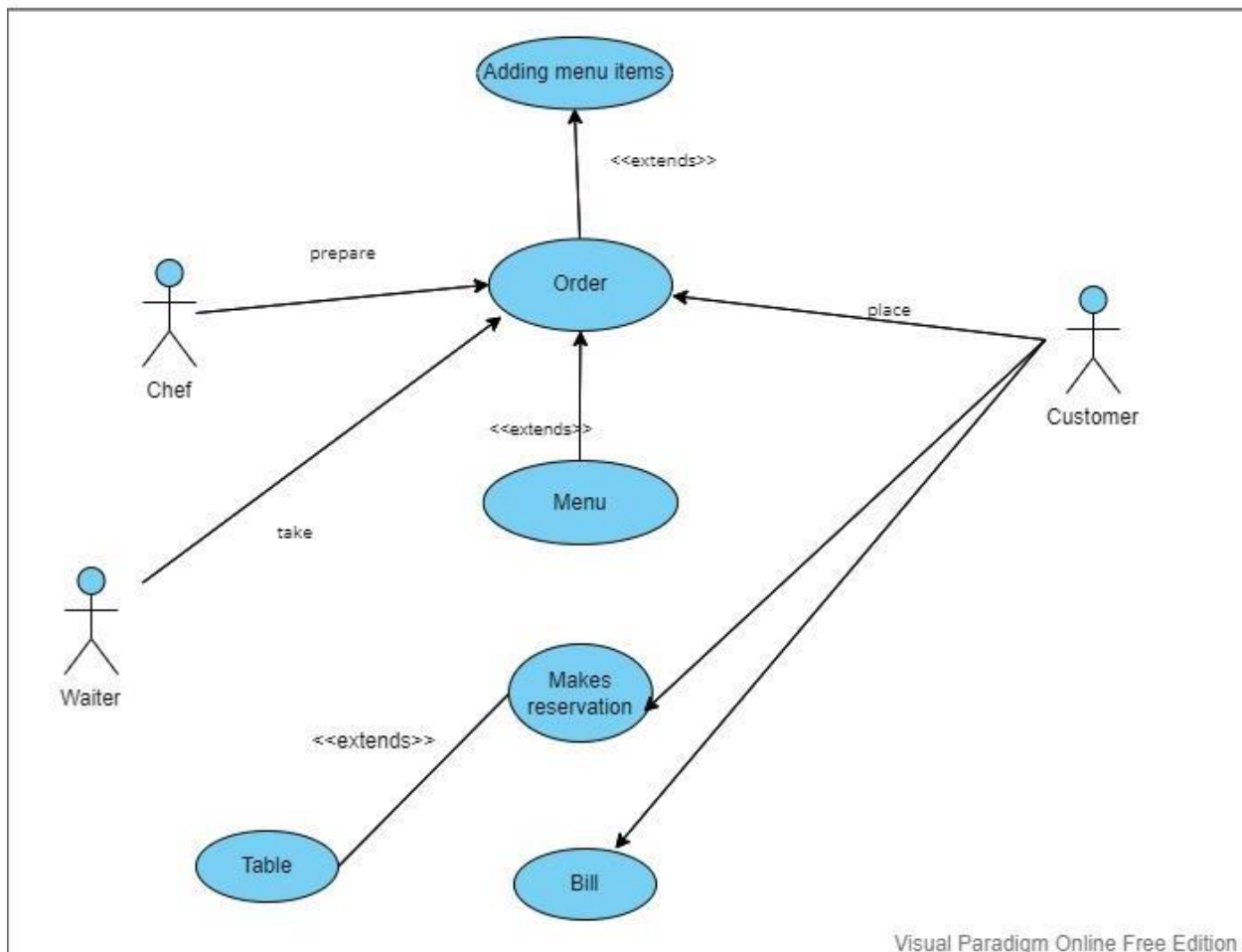
The class diagram is the most commonly used UML diagram. It serves as the foundation for all object-oriented software systems. Class diagrams are used to depict the static structure of a system by displaying the system's classes, methods, and attributes. Class diagrams also assist us in determining the relationships between various classes or objects.



### (ii) Use case diagram

Use Case Diagrams depict the functionality of a system or a component of a system. They are commonly used to demonstrate the system's functional

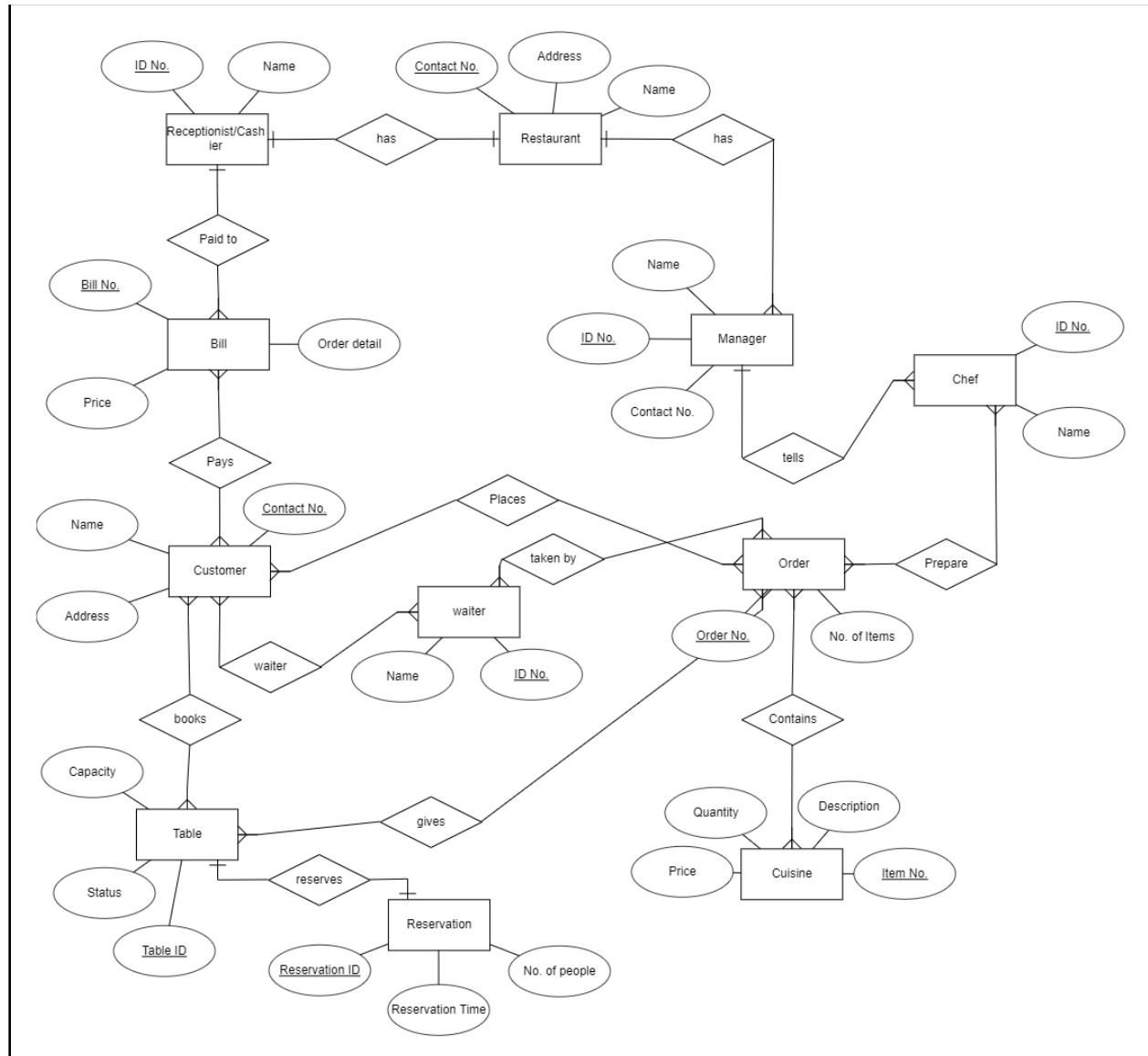
requirements and interaction with external agents (actors). A use case is essentially a diagram that represents various scenarios in which the system can be used. A use case diagram provides a high-level overview of what the system or a component of the system does without delving into implementation details.



### (iii) ER diagram

ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database. In other

words, ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships.



#### (iv) Sequence diagram

A sequence diagram simply depicts object interactions in a sequential order, i.e. the order in which these interactions occur. A sequence diagram can also be referred to

using the terms event diagrams or event scenarios. Sequence diagrams show how and in what order objects in a system work. Businesspeople and software developers frequently use these diagrams to document and understand requirements for new and existing systems.

