OBJECT ORIENTED SOFTWARE ENGINEERING

GOLDEN DRAGON HOT POT HOUSE RESTAURANT INFORMATION SYSTEM DESIGN

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WHAT IS "HOT POT"?

- Hot Pot (火锅 / 火鍋) is an Asian traditional way to serve a meal, originated from Inner Mongolia, China
- Sliced ingredients are brought to the table, where a shared pot is used to cook ingredients right at your table

PROBLEM, NEED, AND SOLUTION

Problem

Restaurant patrons want to visualize their meal before they order, and want to make the ordering process as fast and accurate as possible.

Need

Restaurant information system to process orders and generate sales reports.

Solution

Information system is proposed

FIVE SUB-SYSTEMS

- Membership registration
- Ordering
- Payment
- Reporting
- Menu management

RESTAURANT SETUP: AT THE TABLE

- The restaurant starts with an Apple iPad at each table, where customers can place an order for which ingredient dishes they would like to have.
- This is an all-you-can-eat restaurant.

RESTAURANT SETUP: TABLE TO KITCHEN

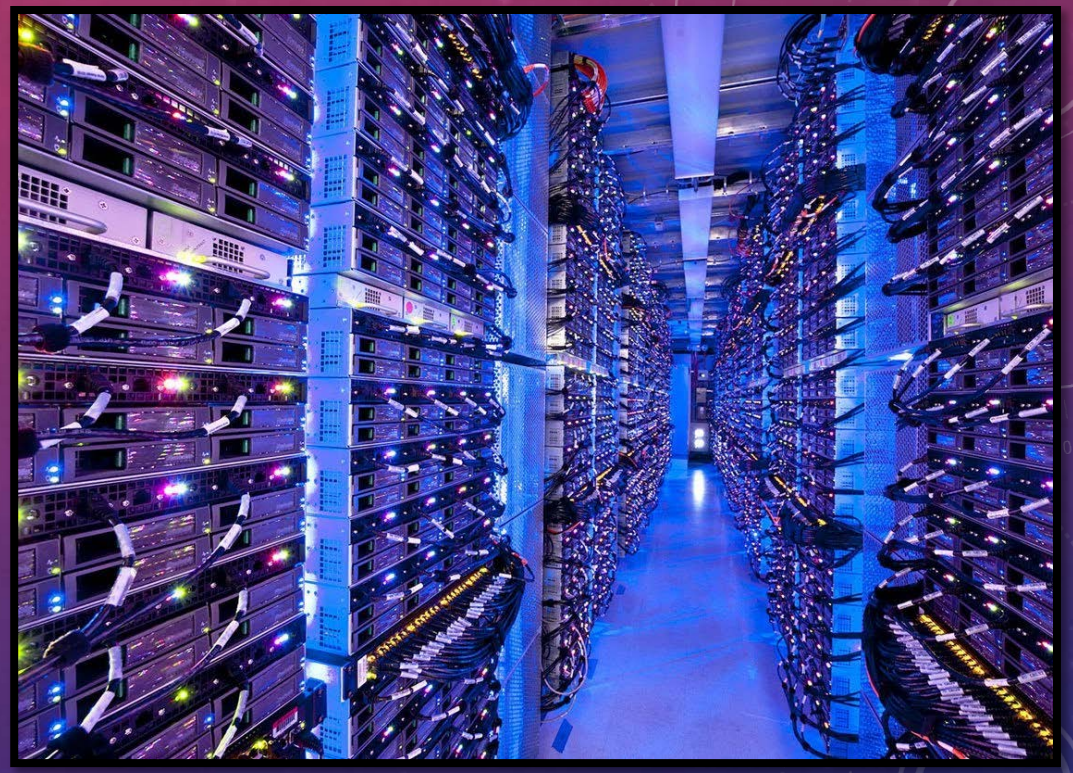
After the order has been confirmed and paid for, the order goes to the kitchen on the kitchen food prep screen

FOOD TO TABLE

- The wait staff brings the sliced food ingredients on serving plates to the table, ready for the customer to cook in the centre hot pot.
- The customer can leave reviews on the food and service, and reorder other foods from the Apple iPad.

RESTAURANT SETUP: BACK-END

- Managers can receive sales reports, perform employee management, customize menus, etc.
- Managers use desktop and laptop computers to manage this



The system databases and back-end system run on Microsoft Azure Cloud, to reduce on-site hardware costs and to protect against possible hacking

USER

- Customers
- Waiters
- Kitchen stuff
- Manager

NOW FOR THE PLANNING!
USER GOALS: CUSTOMERS

Customer	Sign up View personal information View menu and items Order items Cancel ordered items Confirm order View ordered items Request bills View bills Provide feedback View feedback

USER GOALS: WAITER

Waiter	View ordered items View notification of prepared items View bills Confirm payment View feedback

USER GOALS: KITCHEN

Kitchen	View ordered items Confirm prepared items

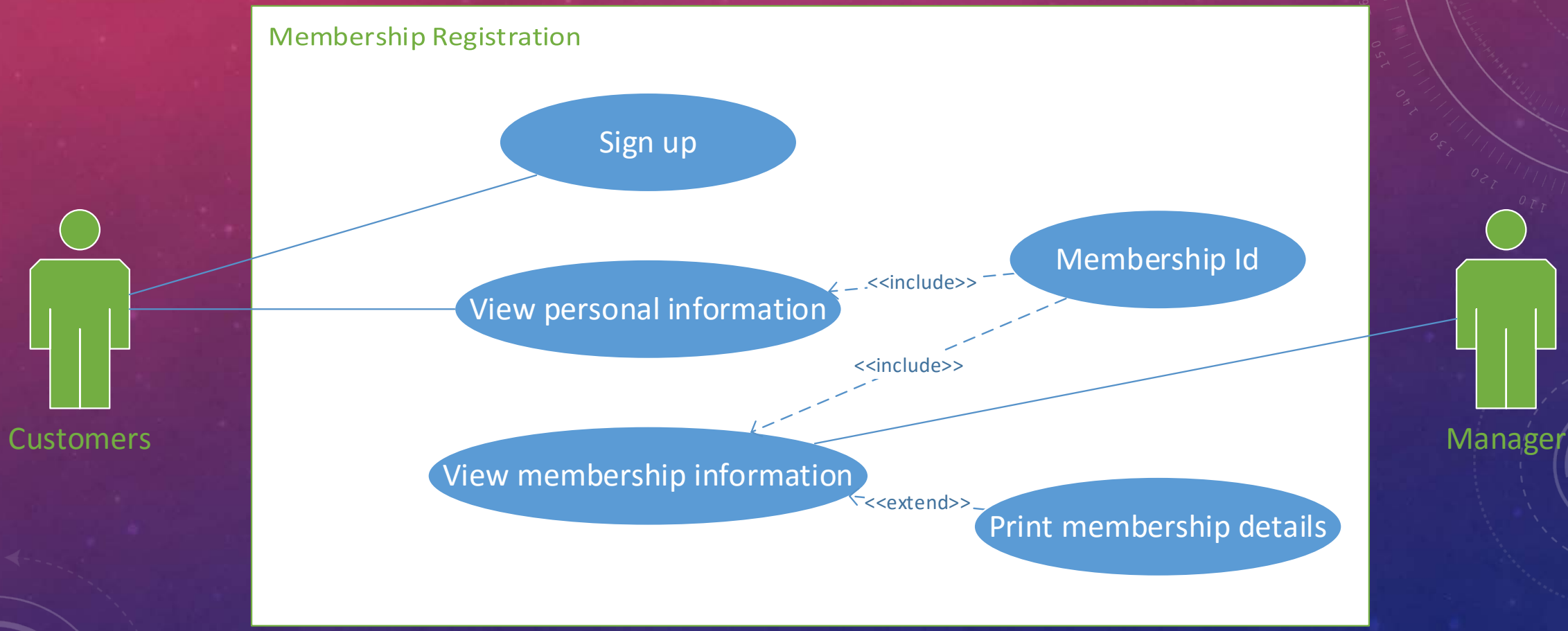
USER GOALS: MANAGER

Manager	View membership information View bills View feedbacks Require reports View reports Download reports Add menu items Modify menu items Delete menu items View Menu

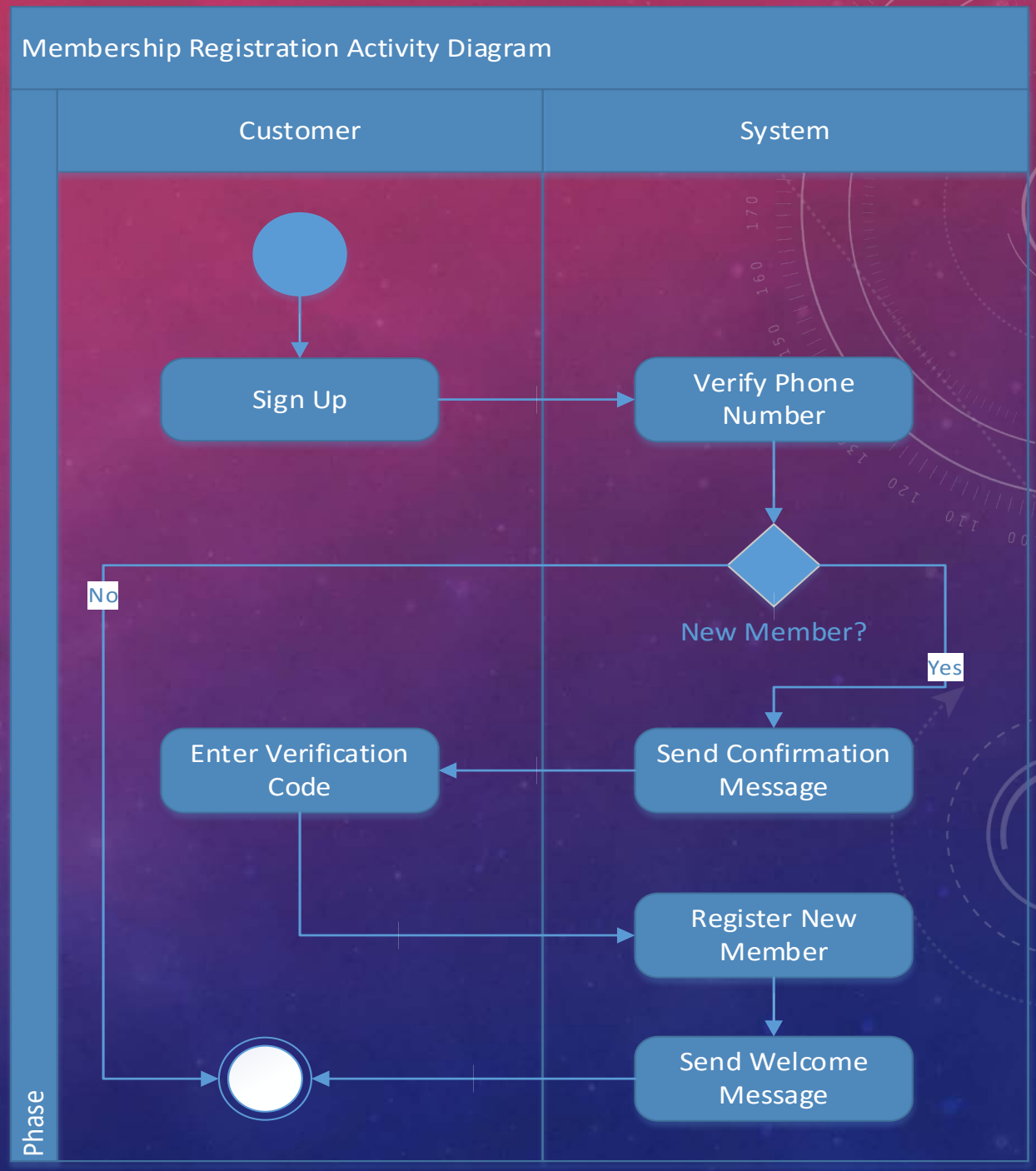
SUBSYSTEM

- MEMBERSHIP REGISTRATION SUBSYSTEM
- ORDERING SUBSYSTEM
- PAYMENT SUBSYSTEM
- REPORTING SUBSYSTEM
- MENU MANAGEMENT SUBSYSTEM

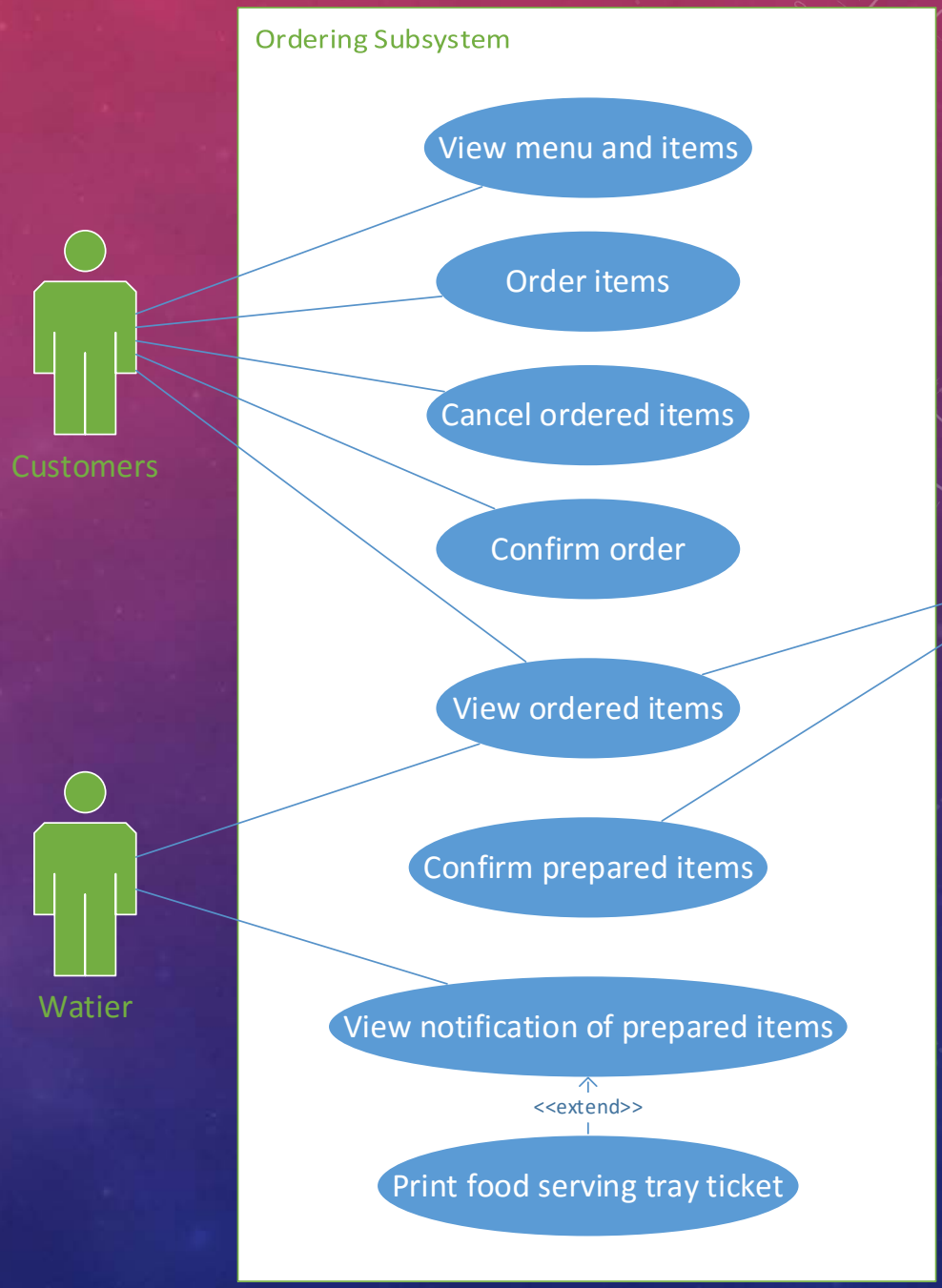
USE CASE - MEMBERSHIP REGISTRATION SUBSYSTEM



ACTIVITY DIAGRAM - MEMBERSHIP REGISTRATION SUBSYSTEM



USE CASE – ORDERING SUBSYSTEM



SUBSYSTEMS
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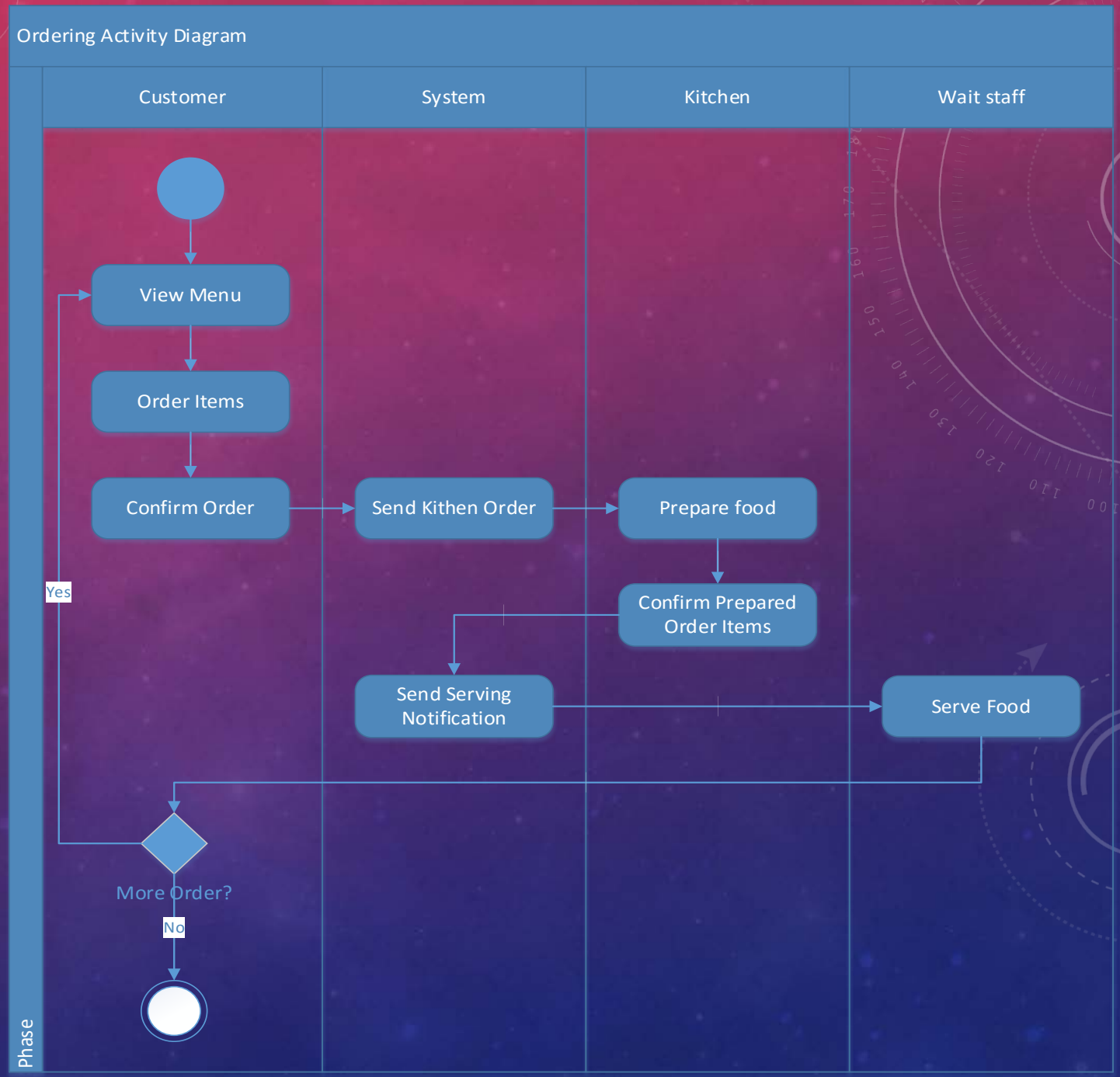
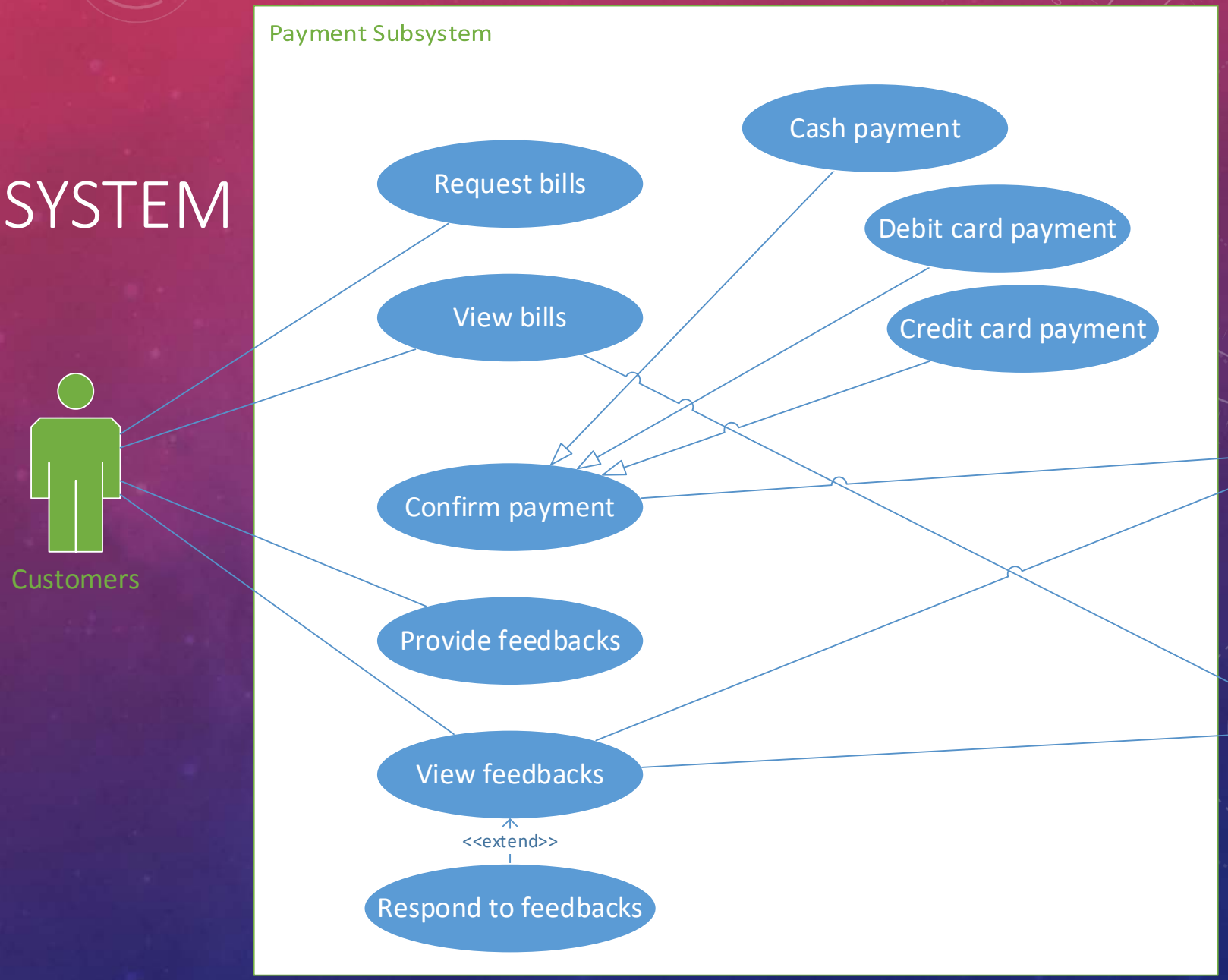
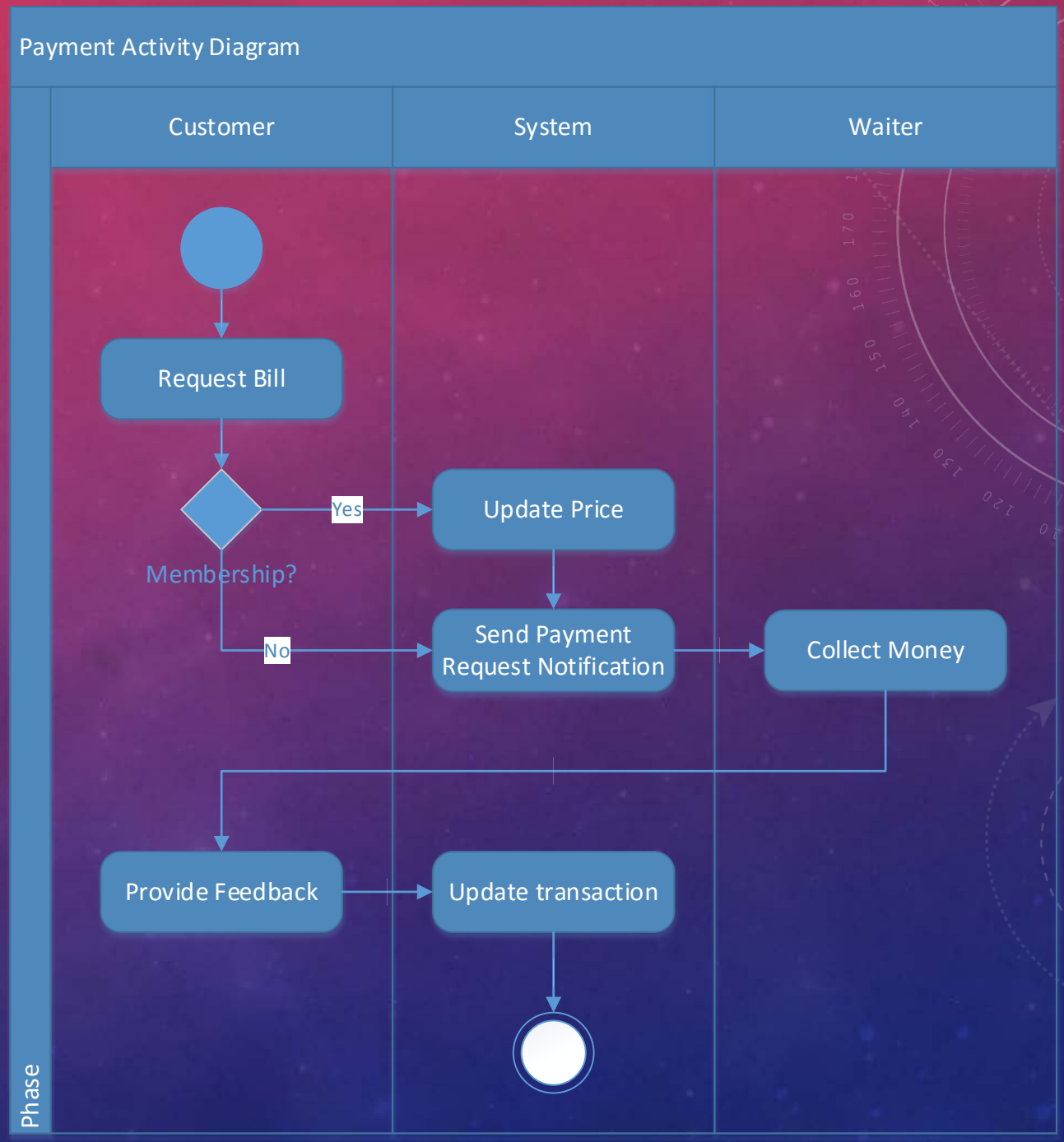
ORDERING SUBSYSTEM



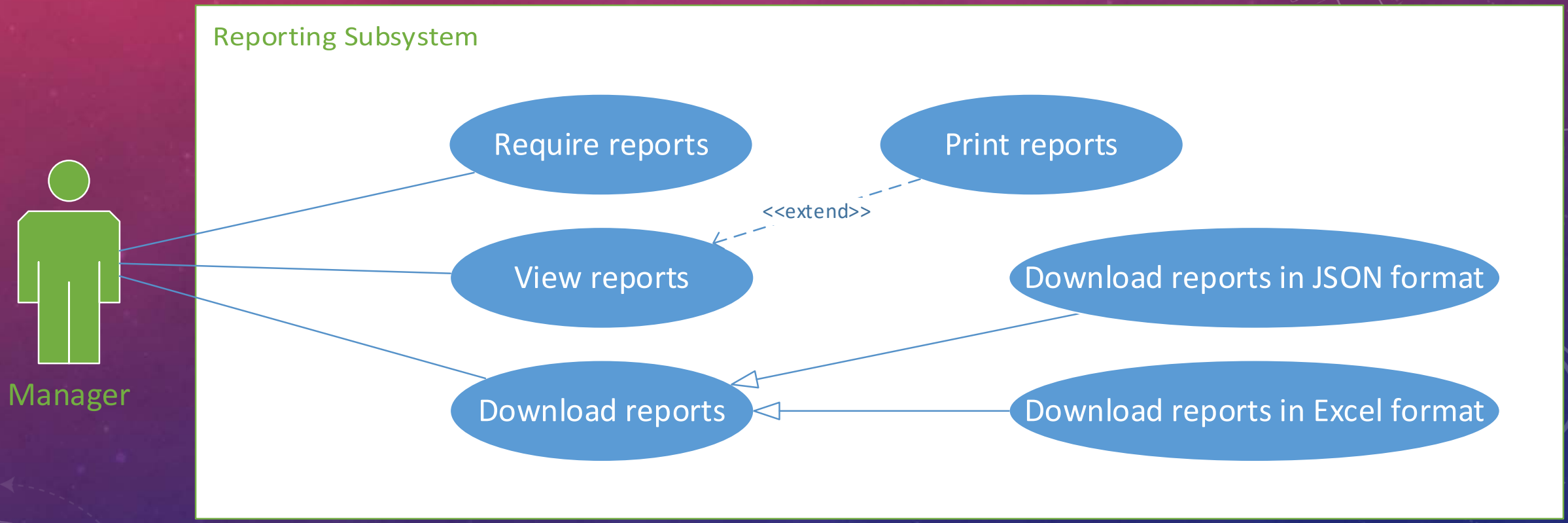
USE CASE – PAYMENT SUBSYSTEM



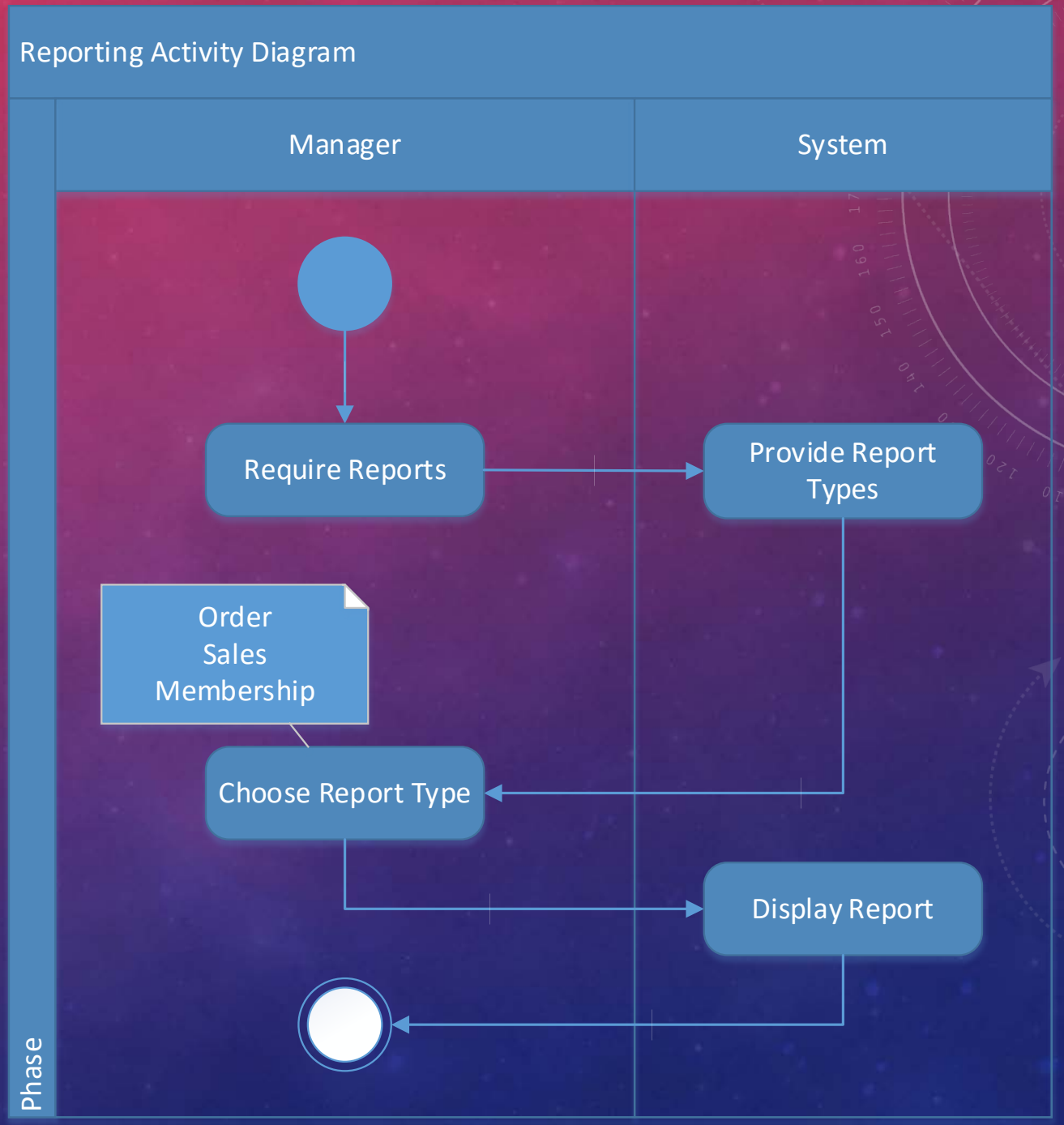
ACTIVITY DIAGRAM - PAYMENT SUBSYSTEM



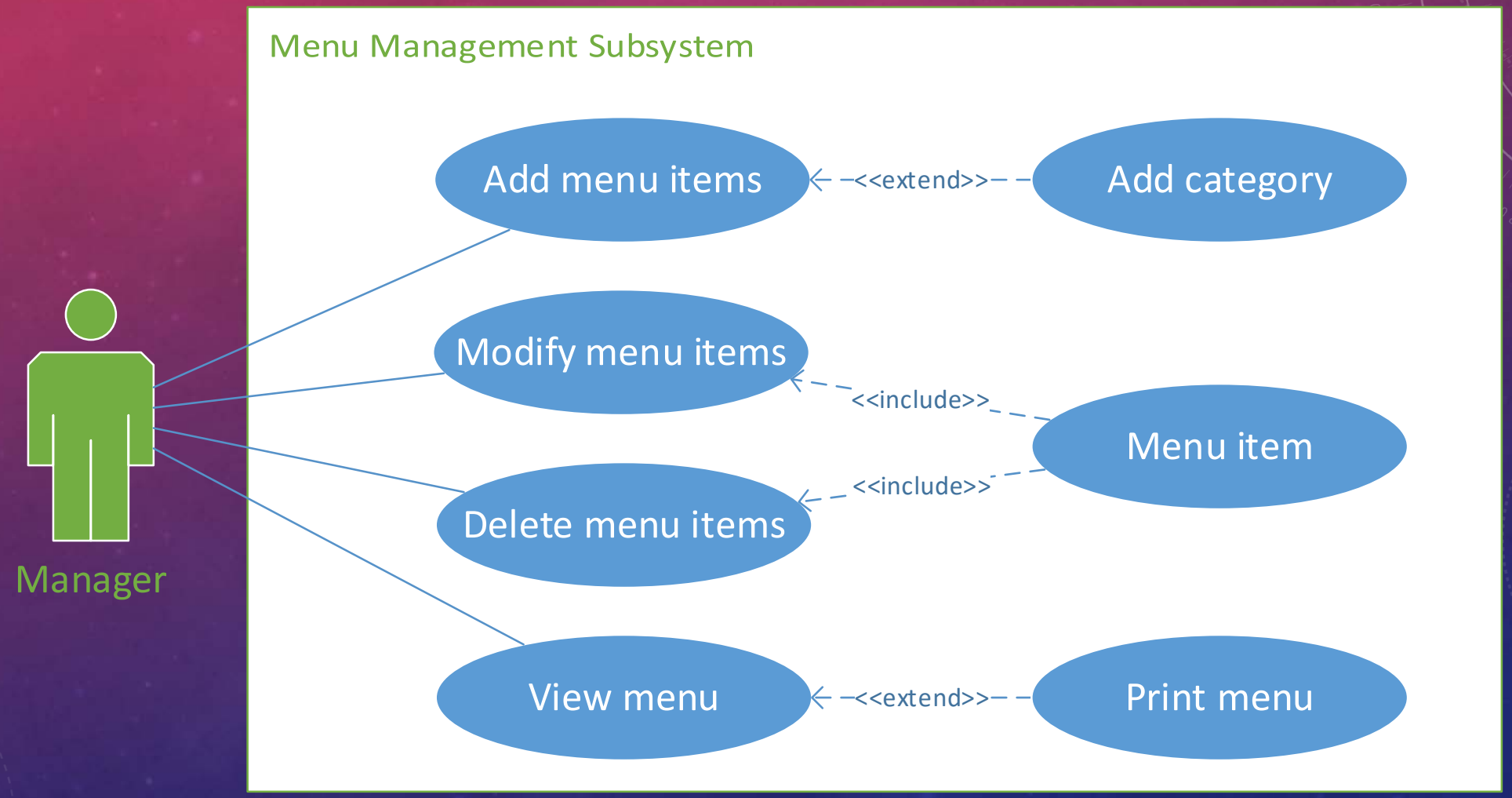
USE CASE- REPORTING SUBSYSTEM



ACTIVITY DIAGRAM - REPORTING SUBSYSTEM



USE CASE – MENU MANAGEMENT SUBSYSTEM



ACTIVITY DIAGRAM
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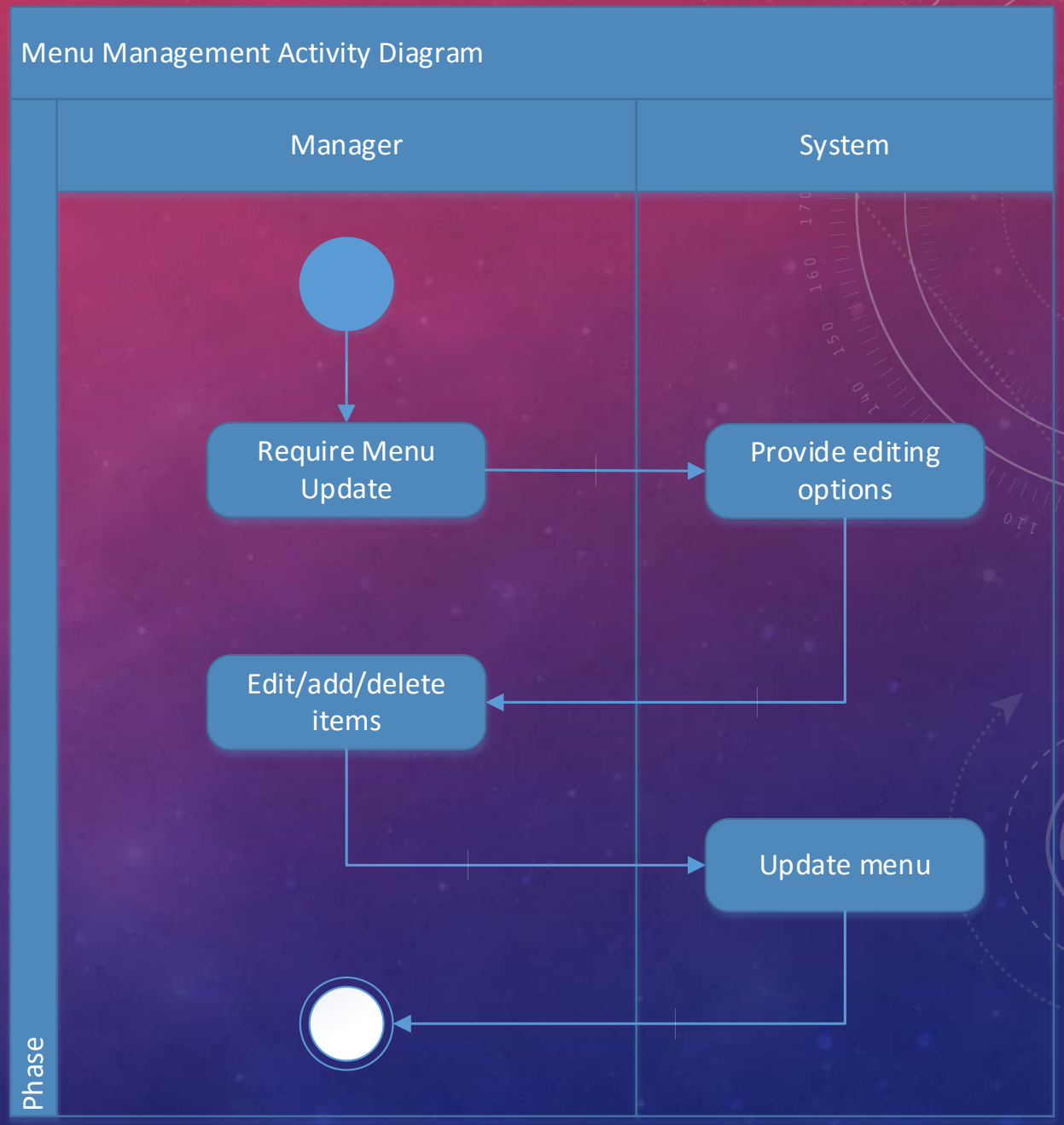
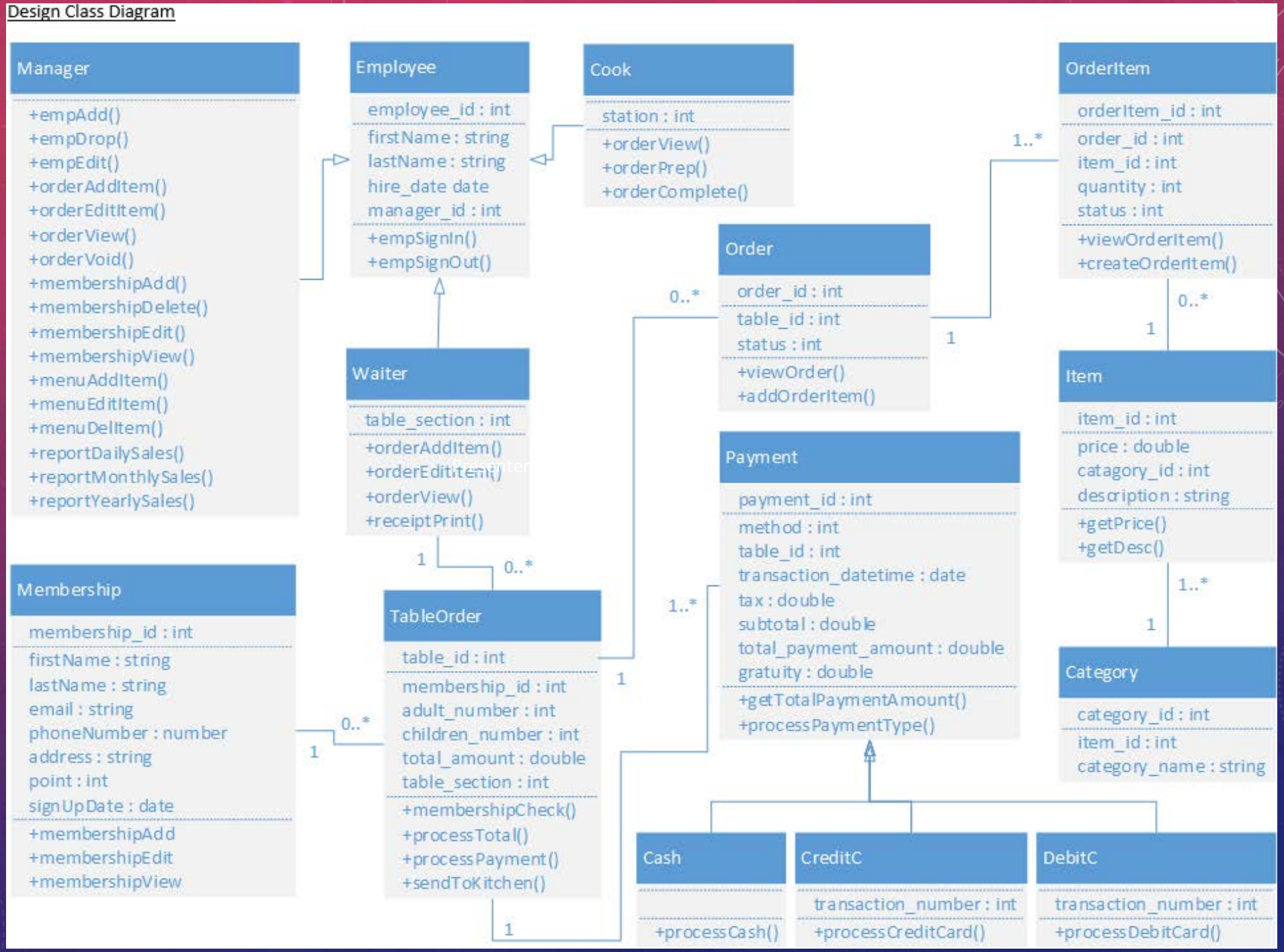
MENU MANAGEMENT SUBSYSTEM



Design Class Diagram



USER INTERFACE

Customer Interface

Management Interface

THANK YOU FOR WATCHING OUR PRESENTATION!

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Gordon Stevens (300864022)

Any Questions?