

Final Defense On

Point of Sales(POS)

BSc.CSIT 7th

Teams

Santosh Adhikari

Basant Khand

Keshav Lamsal

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INTRODUCTION

- POS is a system for managing restaurant products and inventory, as well as taking customer orders and tracking order status without going to the kitchen.
- It provides insightful information about popular tables and products, which can help restaurant managers and customers make better decisions.
- There are four modules: waiter, kitchen, reception, and admin.
 - Waiters use the system to get customer orders by table number, search for products, and view order status.
 - The kitchen receives and processes orders, updates product status, and requests help from reception or admin.
 - Reception uses the system to order products, view order history and status, and provide e-bills to customers.
 - Admin manages everything from the system, including staff and product inventory, income vs expenses, and order history.

STATEMENT OF PROBLEM

- Outdated paper-based ordering and billing system causing several issues.
- Errors in order taking, billing, and payment processing, leading to delays and disputes
- Lack of streamlined table management system and inefficient inventory management.
- Absence of customer insights gathering and inadequate reporting and analysis capabilities

OBJECTIVE

- Efficiency Improvement
- Data Insights
- Customer Service Enhancement
- Performance Optimization
- Cost Saving
- Inventory Control
- Sales and Revenue Control
- Record Keeping Improvement

METHODOLOGY

Incremental Model is a process of software development where requirements divided into multiple standalone modules of the software development cycle. In this model, each module goes through the requirements, design, implementation and testing phases. Every subsequent release of the module adds function to the previous release. The process continues until the complete system achieved.

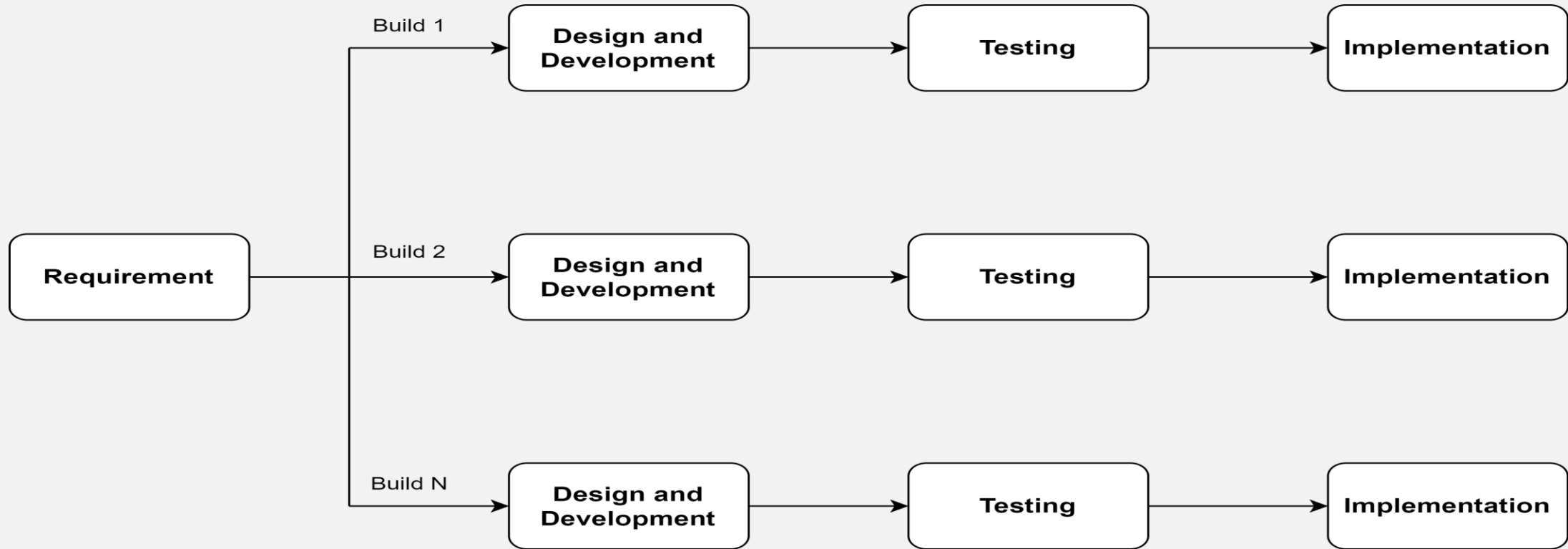


figure : Incremental model

MODULES

ADMIN

- Login/Logout
- Add, Edit, and Delete staff account
- Add, Edit, Delete product
- View the list of customer orders
- Manage categories such as Add, Delete, Edit
- Manage tables

USER

- Login/Logout
- Select table, place order, search product, add product to cart, manage product, print bill, view history (Reception)
- Select table, view order, search product, add product to cart (waiter)
- Manage order (Kitchen)

TOOL AND TECHNOLOGIES

1. Frontend

- React
- Tailwind CSS

2. Backend

- Laravel
- XAMPP

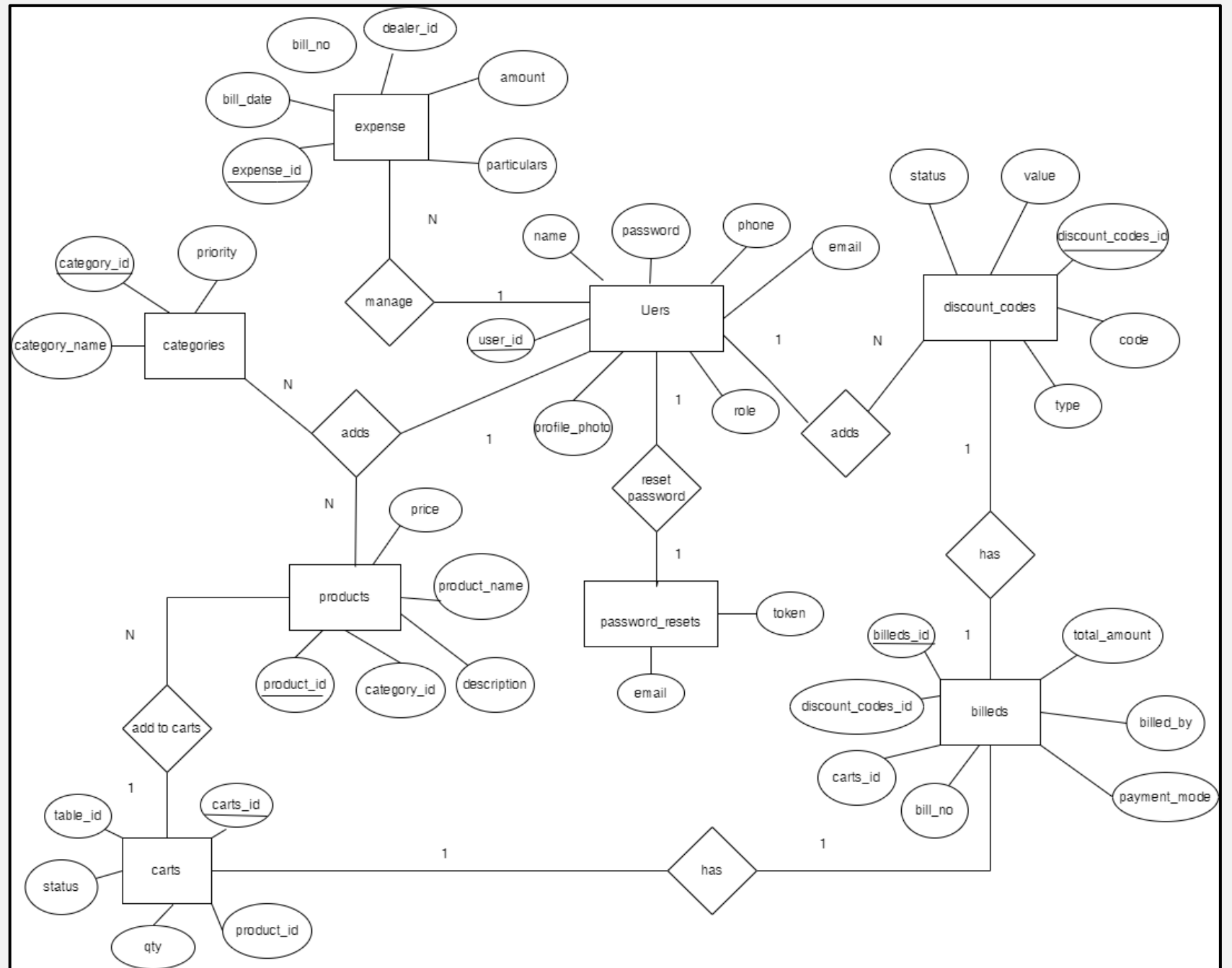
3. Database

- MySQL

4. Other Tools

- VS-Code
- Github

ER- DIAGRAM



USE CASE DIAGRAM

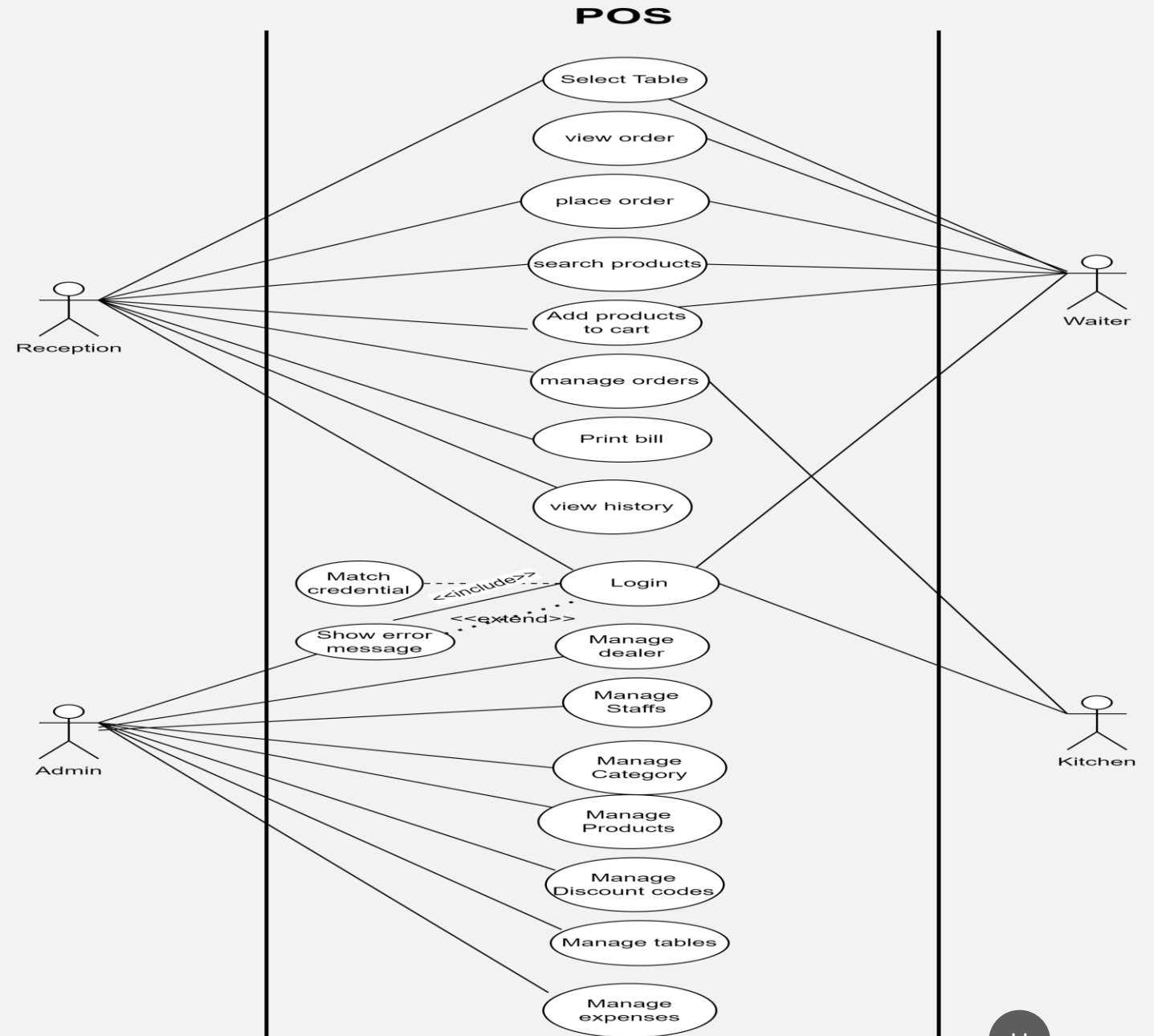


figure : Use case diagram of POS

ACTIVITY DIAGRAM

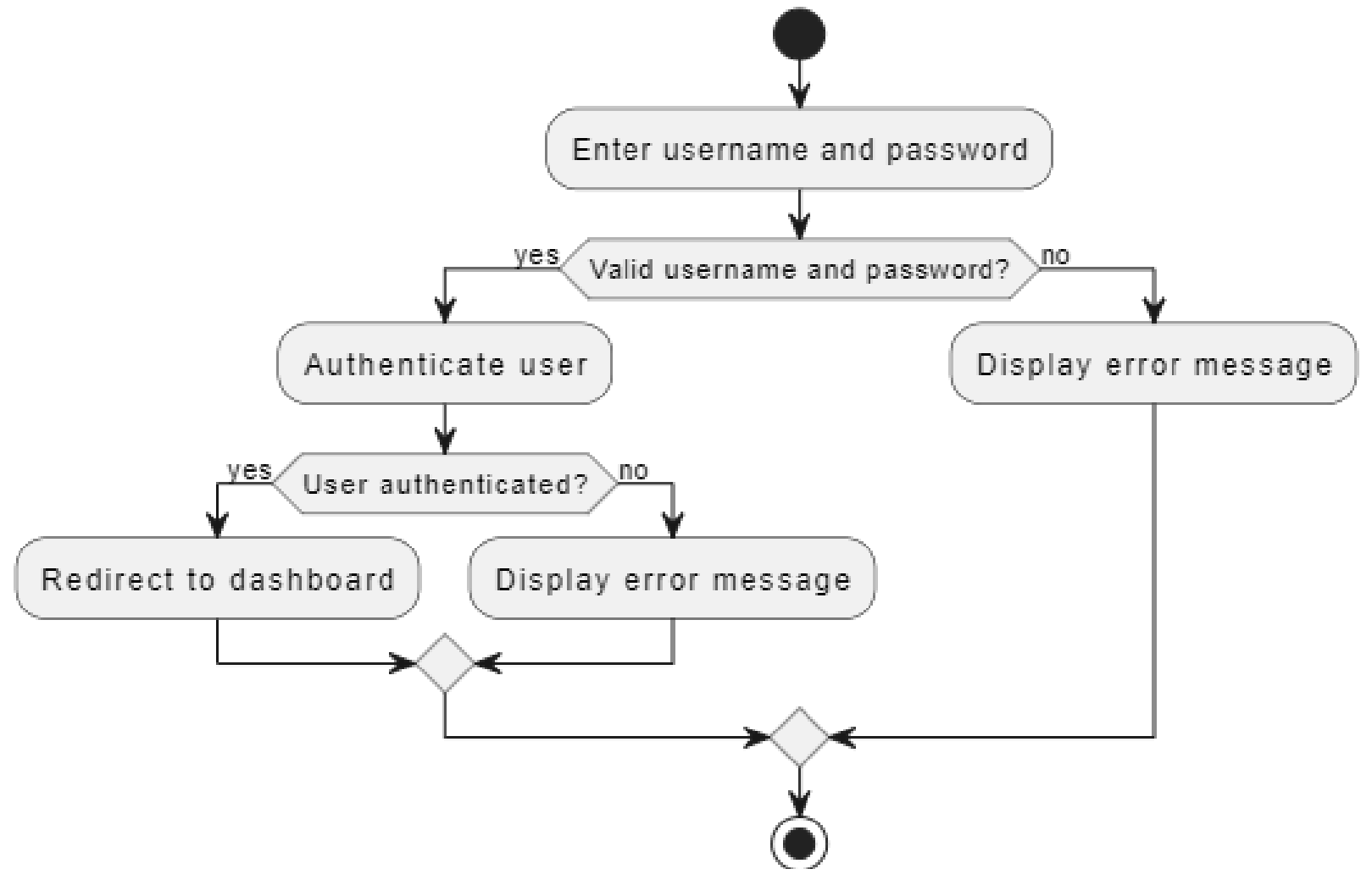


Figure : Login Activity diagram

RISK ANALYSIS

- System Maintenance
- Changes In Restaurant needs
- Technological Obsolescence
- Regulatory Changes
- Cybersecurity Threats

TIME PLAN

	Module 1						Module 2									So on				
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	...	last week
Initial Planning																				
Planning																				
Requirement Collection																				
Designing																				
Implementation																				
Testing																				
Documentation																				
Final Testing																				

CONCLUSION

POS systems are a crucial technological tool that has revolutionized the way businesses operate. They offer benefits such as improved efficiency, accurate inventory management, and enhanced customer experiences. While challenges such as initial investment cost, maintenance expenses, and potential downtime remain, the advantages outweigh the drawbacks.

REFERENCE

- [Incremental Model \(Software Engineering\) - javatpoint](#)
- [FREE Learning Resources: UML, Agile, TOGAF, PMBOK, BPMN \(visual-paradigm.com\)](#)
- [React](#)
- [Namespaces | Laravel API](#)
- [Restaurant POS Systems: The Latest and Future Trends](#)
- [What is POS? A History of POS \(ehopper.com\)](#)
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