

# PKMUCS

Professional Kitchen Management  
for University & College System



# MEMBER & SUPERVISOR

## **Supervisor:**

- ❖ Trần Bình Dương

## **Member:**

- ❖ Nguyễn Đắc Dương
- ❖ Bùi Thị Thùy Linh
- ❖ Trần Văn Thịnh
- ❖ Nguyễn Đức Tiến
- ❖ Đào Ngọc Thành
- ❖ Nguyễn Tuấn




# REFERENCE

- Eff Tian (February 2005). *Software Quality Engineering - Testing, Quality Assurance and Quantifiable Improvement*. US: Wiley - IEE Computer Society Press. p49.
- Shari Lawrence Pfleeger & Joanne M. Atlee (2006). *Software Engineering - Theory and Practice*. 3rd ed. USA: Pearson Education, Inc.. p58.
- Kai Quian, Xiang Fu, Lixin Tao, Chong-Wei Xu, Jorge L. Diaz-Herrera (2010). *Software Architecture and Design Illuminated*. USA: Jones and Barlett Publishers. p199-221.
- Microsoft. (). *Microsoft Association Algorithm*. Available: <http://msdn.microsoft.com/en-us/library/ms174916.aspx>. Last accessed 17th Aug 2014.



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Project Background
Project Management Plan
System Requirement
System Design
Testing
Project Result
Demo



# PROJECT BACKGROUND

FPT  
University's  
Cafeteria –  
Hoa Lac  
Campus

Business  
outline

Current  
solutions

PKMUCS  
(Oblivion)



# FPT UNIVERSITY'S CAFETERIA (HOA LAC CAMPUS)



One of the most important building block at Hoa Lac Campus.

Served almost pupils of F-School

A large number of students, teachers and staff eat one – two meats/ day at here



# FPT UNIVERSITY'S CAFETERIA (HOA LAC CAMPUS)

Provide two big with  
different kind of food

It also support  
breakfast for pupils of  
F-School.



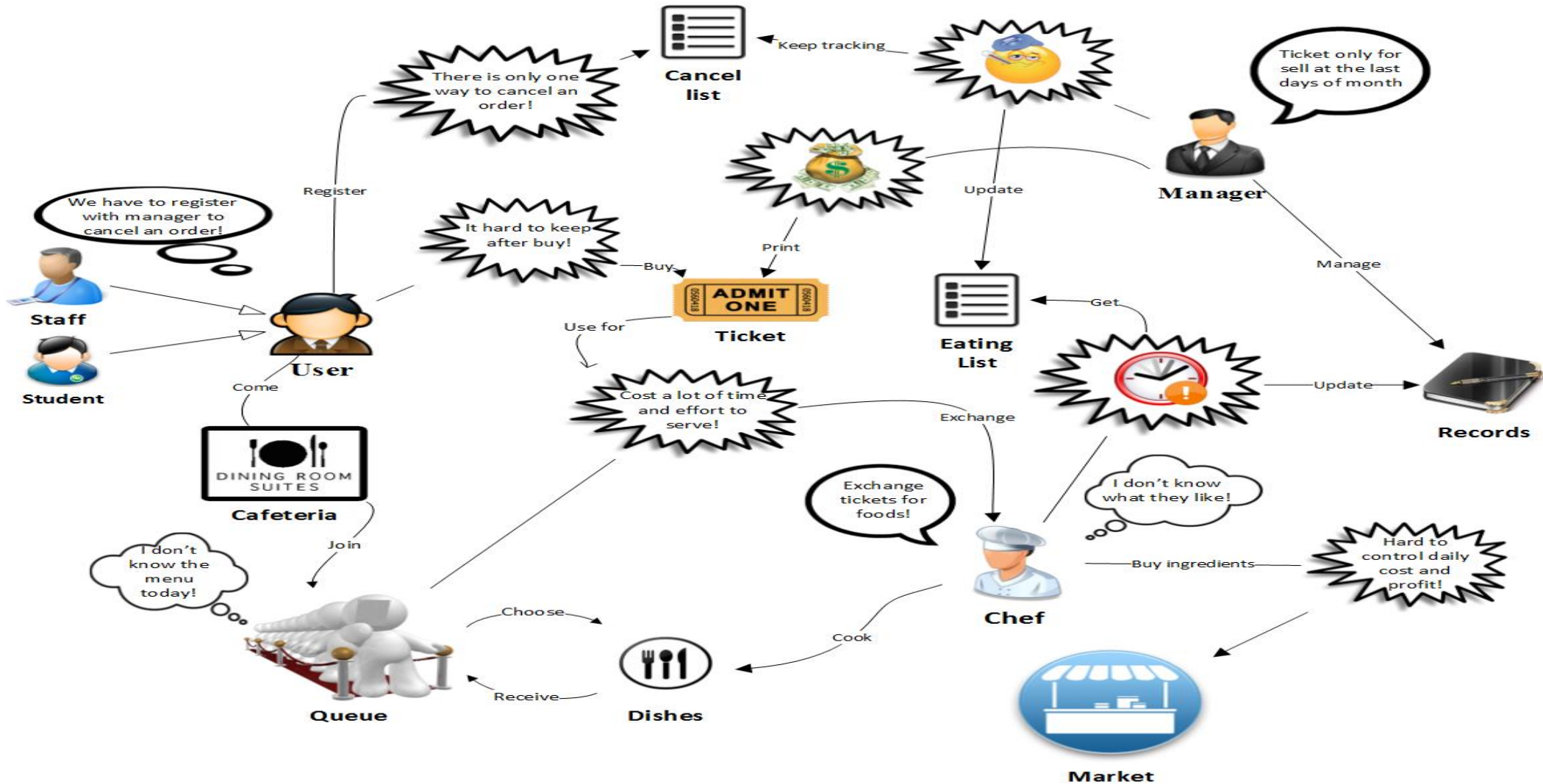
~ 2000 orders/day

Got 3 main door to enter/  
leave, 4 entry point to  
served food.





# BUSINESS OUTLINE





# CURRENT SOLUTION

Manage using ticket

## Advantages:

- Easy to control and manage the whole system.
- User can transfer or trade ticket with another user easily.



# CURRENT SOLUTION

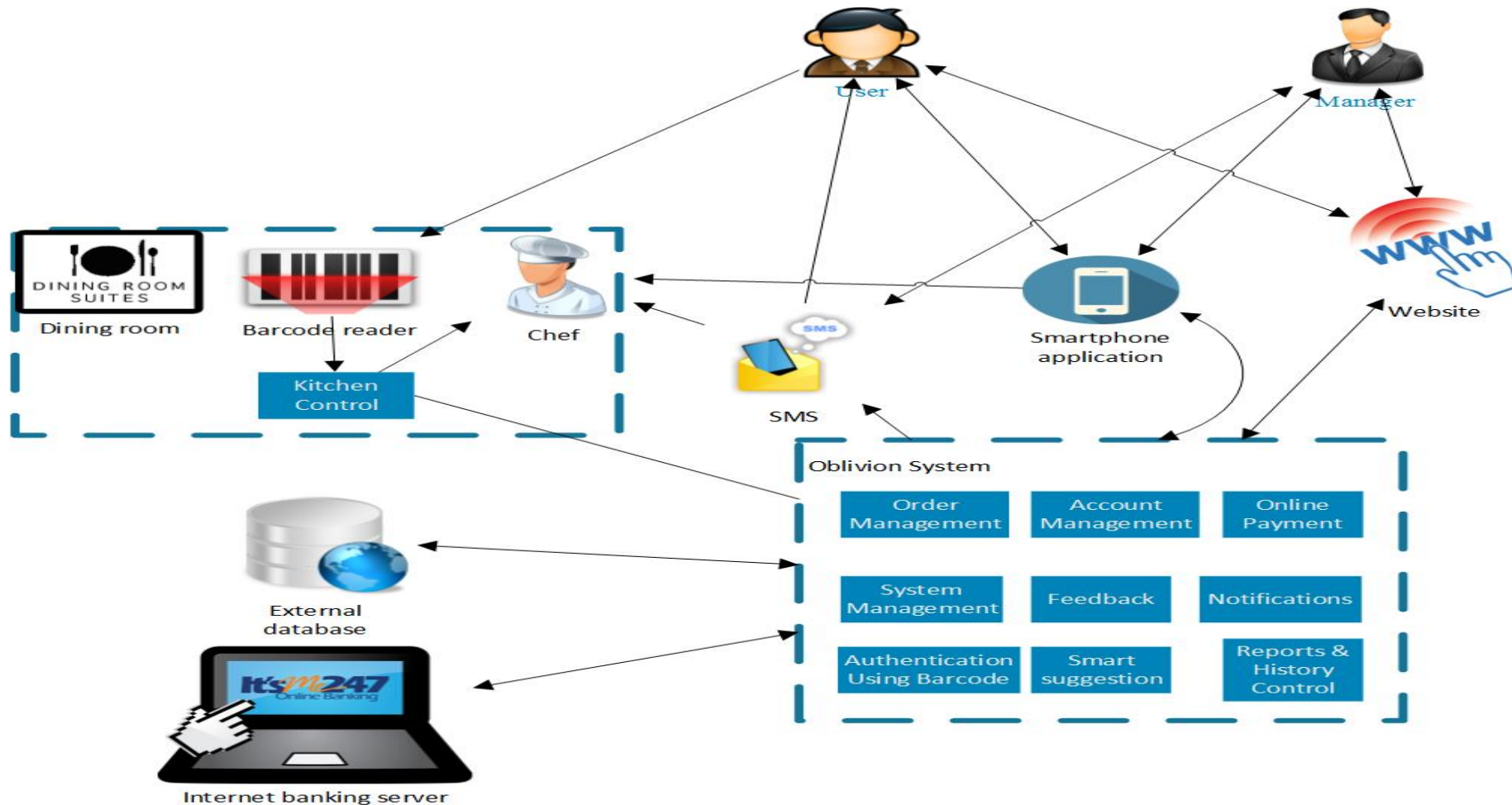
**Manage using  
ticket**

## Disadvantages:

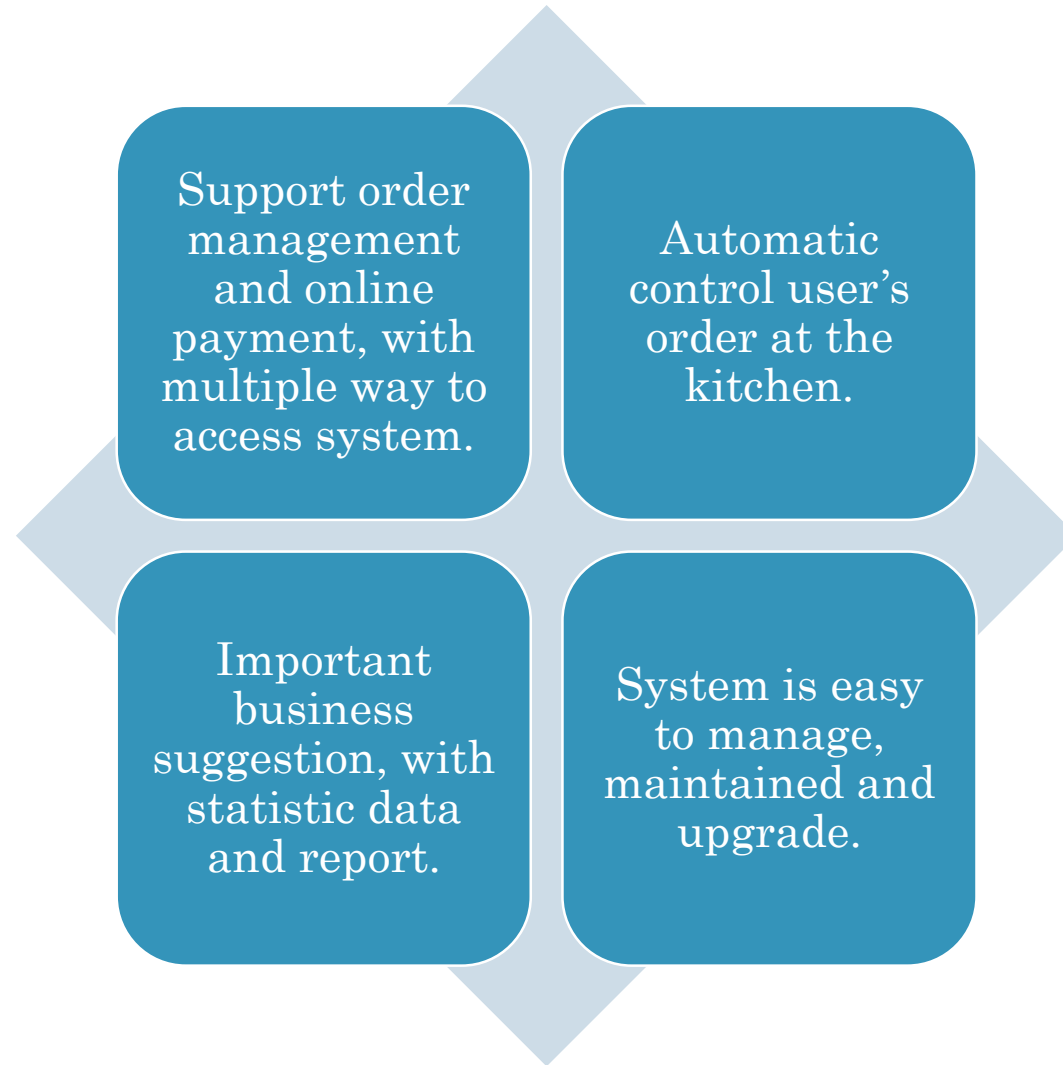
- The limitation of interactive between users, stakeholders of the system.
- The lacking of technology support for users and manager.
- The high cost to operate the whole system for a large number of users.
- There is no base data for predict behavior of users.



# CONTEXT DIAGRAM



# OBLIVION



# PROJECT MANAGEMENT

- Project Overview
- Project organization
- Project Management Plan



# PROJECT OVERVIEW

## Boundaries of the system

- Oblivion developed with its main target is kitchen at Hoa Lac campus.

## Development environment

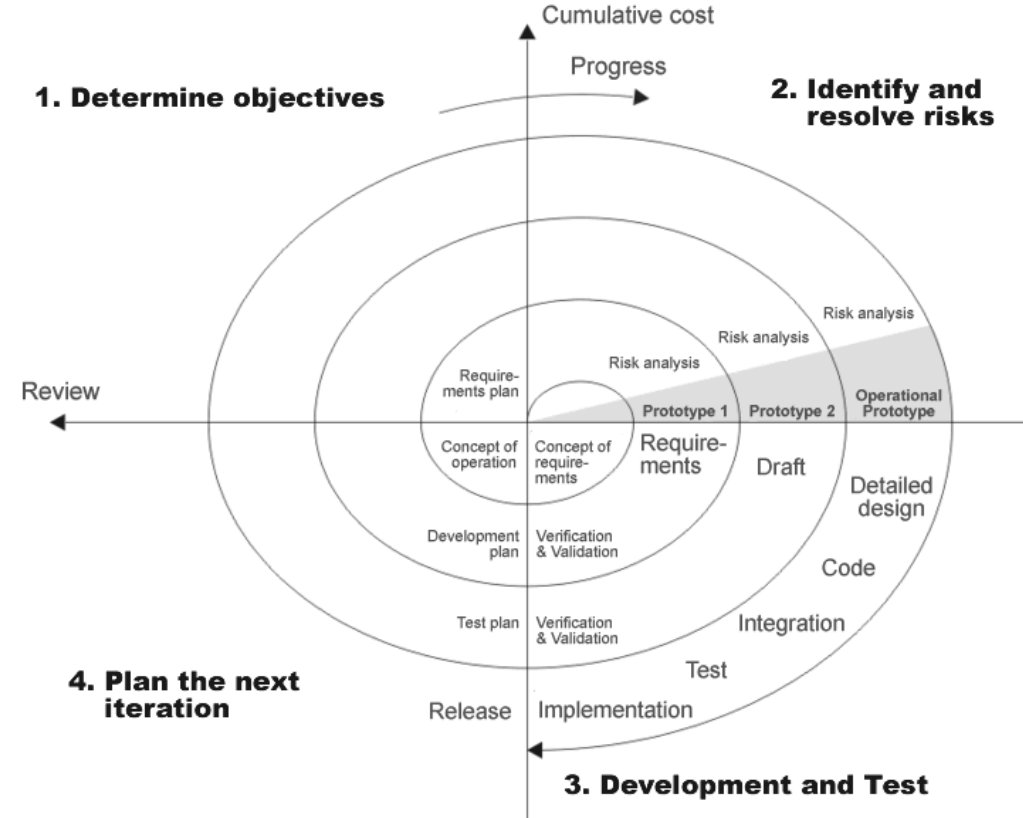
	Development Machine	Server Machine
OS	Microsoft Window 7 64 bit Microsoft Window 8 32/64 bit	CentOS 6 Server 64 bit
Framework	.NET Framework 3.5 .NET Framework 4.0	CodeIgnite .NET Framework 4.0
Tool	Microsoft Visual Studio 2012 Ultimate Microsoft SQL Server 2012 PHPDesigner	Netbean MySQL



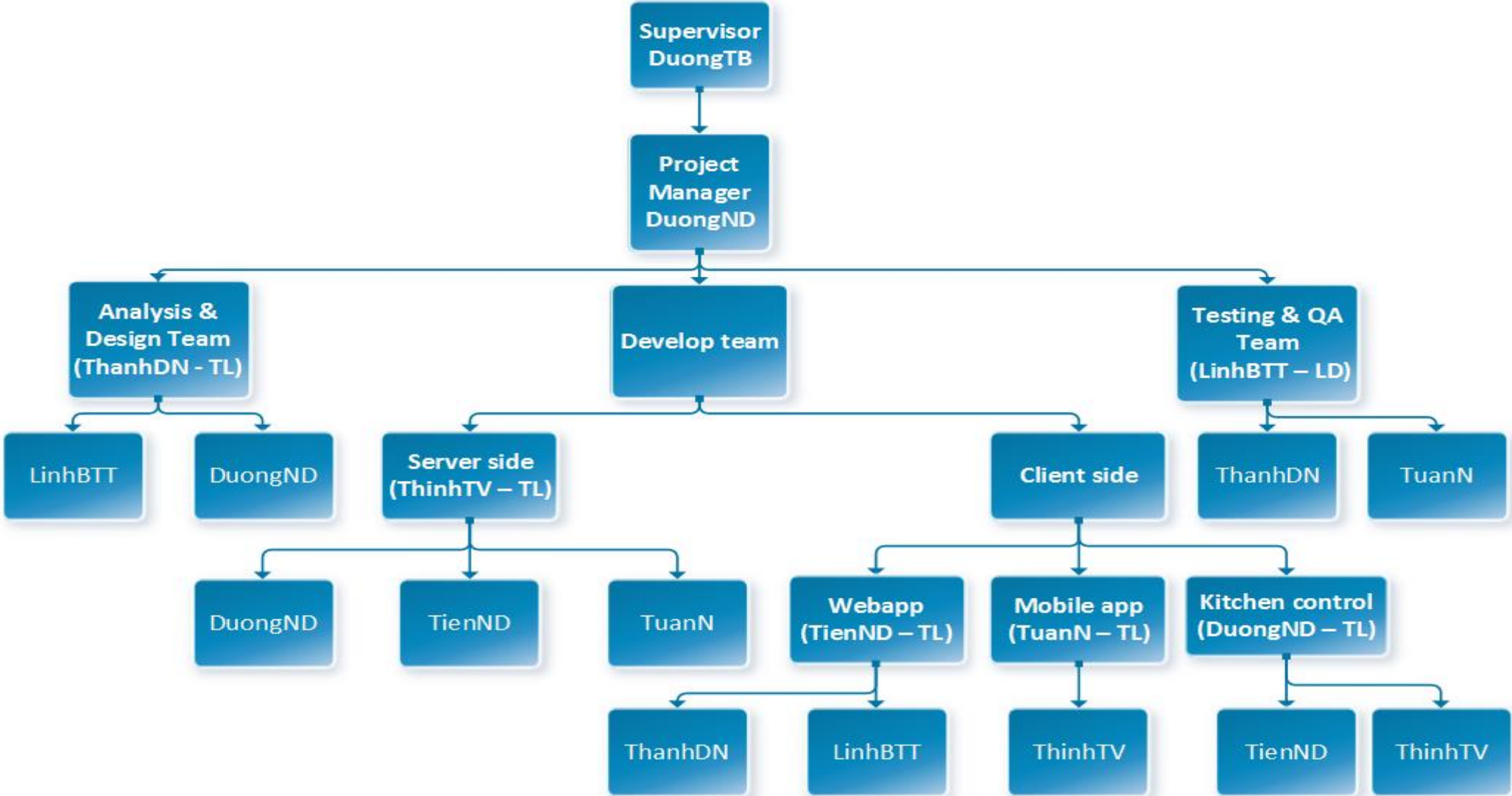


# PROJECT ORGANIZATION

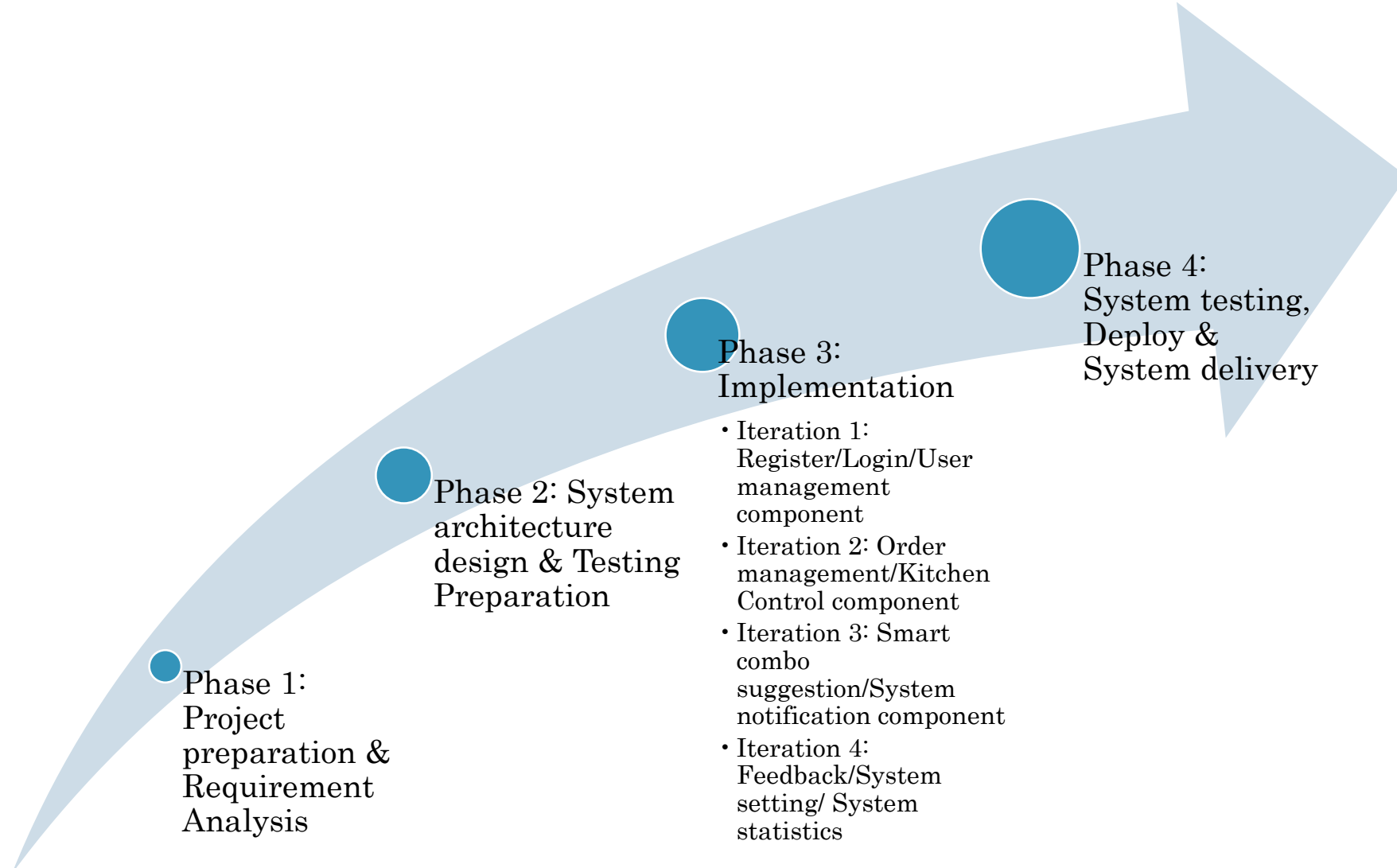
## Software process model



# ROLES & RESPONSIBILITY

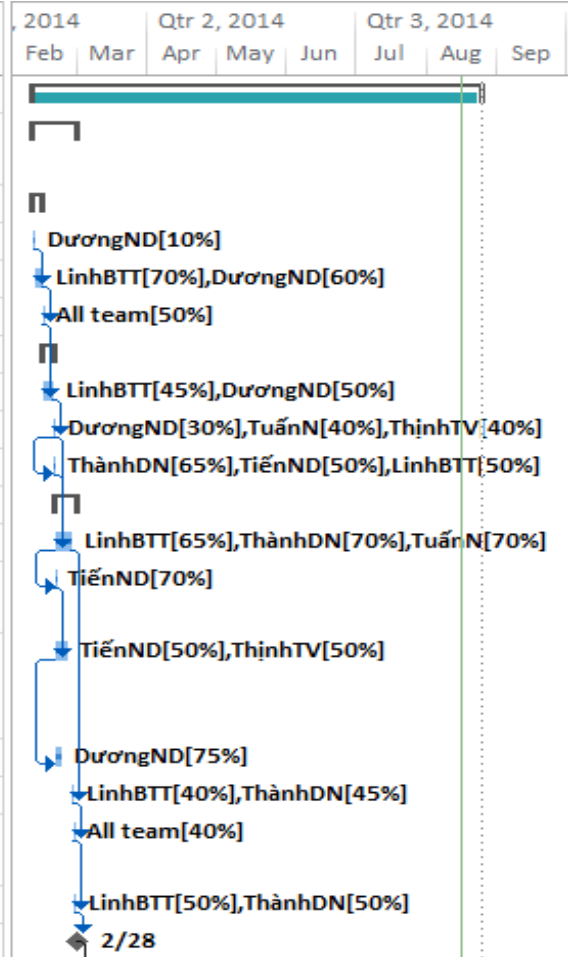


# PROJECT MANAGEMENT PLAN



# PHASE 1

		Task Mode	Task Name	Duration	Start	Finish	Predecessors	2014	Qtr 2, 2014	Qtr 3, 2014					
								Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1			Software development plan	141 days	Mon 2/10/14	Mon 8/25/14									
2	✓		Phase 1: Project preparation & Requirement Analysis	15 days	Mon 2/10/14	Fri 2/28/14									
3	✓		Initiation	4.5 days	Mon 2/10/14	Fri 2/14/14									
4	✓		Identify project stakeholders	2 hrs	Mon 2/10/14	Mon 2/10/14									
5	✓		Develop project charter	3.75 days	Mon 2/10/14	Thu 2/13/14	4								
6	✓		Kick-off meeting	4 hrs	Fri 2/14/14	Fri 2/14/14	5								
7	✓		Scope	3 days	Fri 2/14/14	Wed 2/19/14									
8	✓		Determine project scope	2 days	Fri 2/14/14	Tue 2/18/14	6								
9	✓		Secure project sponsorship	1 day	Tue 2/18/14	Wed 2/19/14	8								
10	✓		Define preliminary resources	1 day	Tue 2/18/14	Wed 2/19/14	9SS								
11	✓		Analysis/Software requirement	7.5 days	Wed 2/19/14	Fri 2/28/14									
12	✓		Requirement Analysis	5 days	Wed 2/19/14	Wed 2/26/14	10,9								
13	✓		Research existing system on the market	4 hrs	Wed 2/19/14	Wed 2/19/14	12SS								
14	✓		Collect and analysis information from existing system	3 days	Thu 2/20/14	Mon 2/24/14	13								
15	✓		Develop project budget	2 days	Thu 2/20/14	Fri 2/21/14	14SS								
16	✓		Draft software specifications	1 day	Wed 2/26/14	Thu 2/27/14	12								
17	✓		Team meeting: Review software specifications	4 hrs	Thu 2/27/14	Thu 2/27/14	16								
18	✓		Update SRS	6 hrs	Fri 2/28/14	Fri 2/28/14	17								
19	✓		Release SRS	2 hrs	Fri 2/28/14	Fri 2/28/14	18								



# PHASE 2

	i	Task Mode	Task Name	Duration	Start	Finish	Predecessors	2014											
								Feb	Mar	Qtr 2, 2014		Qtr 3, 2014			Qtr 4, 2014				
								Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
20	✓	→	Phase 2: System architecture design & Testing preparation	15.25 days	Mon 3/3/14	Mon 3/24/14													
21	✓	→	NodeJS research	2 days	Mon 3/3/14	Tue 3/4/14	19												
22	✓	→	JSON for Android research	2 days	Mon 3/3/14	Tue 3/4/14	21SS												
23	✓	→	JSON for PHP research	2 days	Mon 3/3/14	Tue 3/4/14	21SS												
24	✓	→	Research Card/Barcode reader for C# client	2 days	Mon 3/3/14	Tue 3/4/14	21SS												
25	✓	→	Research template for web application and mobile application	2 days	Mon 3/3/14	Tue 3/4/14	21SS												
26	✓	→	System architecture design	6 days	Wed 3/5/14	Wed 3/12/14	21,22,23,25												
27	✓	→	Develop prototype A	4 days	Thu 3/13/14	Tue 3/18/14													
28	✓	→	For website	4 days	Thu 3/13/14	Tue 3/18/14	26												
29	✓	→	For web server	4 days	Thu 3/13/14	Tue 3/18/14	26												
30	✓	→	For Android application	4 days	Thu 3/13/14	Tue 3/18/14	26												
31	✓	→	Team meeting: Review prototype A	4 hrs	Wed 3/19/14	Wed 3/19/14	28,29,30												
32	✓	→	Update change for prototype	20 hrs	Wed 3/19/14	Fri 3/21/14	31												
33	✓	→	Develop unit test plan	2 days	Thu 3/13/14	Fri 3/14/14	26												
34	✓	→	Develop system integration & system test plans	3 days	Mon 3/17/14	Wed 3/19/14	33												
35	✓	→	Release prototype A, system architecture design & testing	2 hrs	Mon 3/24/14	Mon 3/24/14	32,34												



# PHASE 3 – INTERACTION 1

	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Qtr 2, 2014			Qtr 3, 2014			Qtr 4, 2014			Qtr 1, 2015			Qtr 2, 2015					
							Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
36		Phase 3: Implement	103 days	Mon 3/24/14	Thu 8/14/14																			
37	✓	Iteration 1: Register/Login/User management component	43.5 days	Mon 3/24/14	Thu 5/22/14																			
38	✓	Set up source control enviroment	0.5 days	Mon 3/24/14	Mon 3/24/14	35																		
39	✓	Set up NodeJS server & Mongo database	2 days	Mon 3/24/14	Wed 3/26/14	38																		
40	✓	Details design register functional	3 days	Wed 3/26/14	Mon 3/31/14																			
44	✓	Develop register functional	5 days	Fri 3/28/14	Fri 4/4/14																			
48	✓	Develop unit test case for each register functional	6 days	Wed 3/26/14	Thu 4/3/14	41SS																		
49	✓	Do unit test for register funtion	4 days	Fri 4/4/14	Thu 4/10/14	45,46,47,48																		
50	✓	Fix bugs and re-test	2 days	Thu 4/10/14	Mon 4/14/14	49																		
51	✓	Update prototype A to A1	4 hrs	Mon 4/14/14	Tue 4/15/14	50																		
52	✓	Team meeting: Review prototype A1	4 hrs	Tue 4/15/14	Tue 4/15/14	51																		
53	✓	Collect and update document	4 hrs	Tue 4/15/14	Wed 4/16/14	51SS,52																		
54	✓	Details design login functional	3 days	Tue 4/15/14	Fri 4/18/14																			
58	✓	Develop login functional	3 days	Thu 4/17/14	Tue 4/22/14																			
62	✓	Develop unit test case for each login functional	4 days	Tue 4/15/14	Mon 4/21/14	55SS																		
63	✓	Do unit test for login funtional	2 days	Tue 4/22/14	Thu 4/24/14	59,60,61,62																		
64	✓	Fix bugs and re-test	2 days	Thu 4/24/14	Mon 4/28/14	63																		
65	✓	Update prototype A1 to A2	4 hrs	Mon 4/28/14	Tue 4/29/14	64																		
66	✓	Team meeting: Review prototype A2	4 hrs	Tue 4/29/14	Tue 4/29/14	65																		
67	✓	Collect and update document	4 hrs	Tue 4/29/14	Wed 4/30/14	65SS,66																		
68	✓	Details design user authorization and user management functional	5 days	Tue 4/29/14	Tue 5/6/14																			





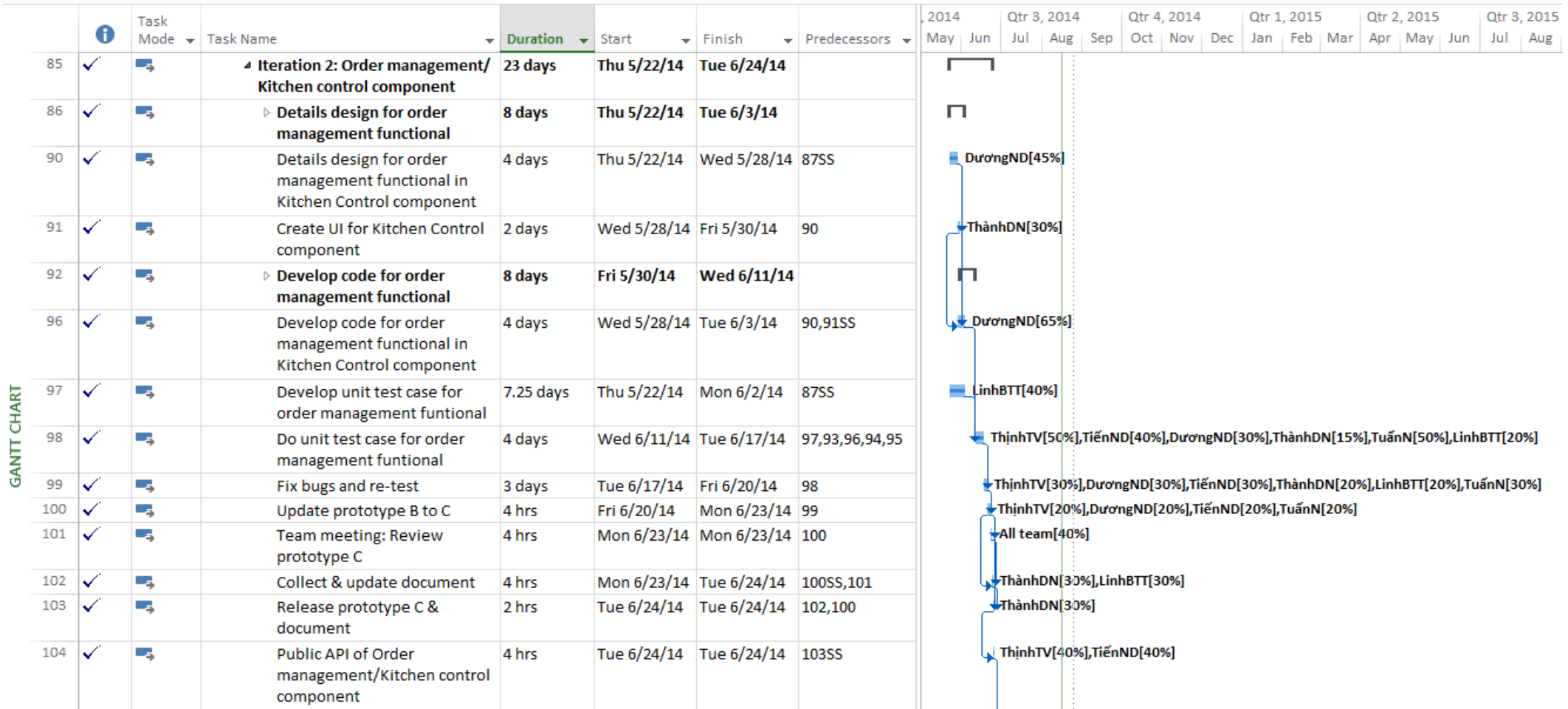
# PHASE 3 – INTERACTION 1 (CON.)

	i	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Qtr 2, 2014			Qtr 3, 2014			Qtr 4, 2014			Qtr 1, 2015			Qtr 2,
								Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
72	✓	☛	▷ Develop user authorization and user management funtional	6 days	Fri 5/2/14	Mon 5/12/14		□												
76	✓	☛	Develop unit test case for user authorization and user management functional	4 days	Tue 4/29/14	Mon 5/5/14	69SS	□ LinhBTT[70%],DươngND[10%],ThànhDN[10%],TuấnN[10%]												
77	✓	☛	Do unit test for user authorization and user management functional	2 days	Mon 5/12/14	Wed 5/14/14	76,73,74,75	▼ ThànhDN[50%],TiếnND[55%],TuấnN[55%],ThịnhTV[60%],LinhBTT[30%]												
78	✓	☛	Fix bugs and re-test	2 days	Wed 5/14/14	Fri 5/16/14	77	▼ ThịnhTV[70%],ThànhDN[65%],TiếnND[65%],TuấnN[50%],LinhBTT[40%]												
79	✓	☛	Modular integration test	2 days	Fri 5/16/14	Tue 5/20/14	78	▼ ThịnhTV[30%],ThànhDN[40%],LinhBTT[50%],TuấnN[40%],TiếnND[30%]												
80	✓	☛	Update prototype A2 to B	4 hrs	Tue 5/20/14	Wed 5/21/14	79	▼ ThịnhTV[20%],TiếnND[20%],TuấnN[20%]												
81	✓	☛	Team meating: Review prototype B	4 hrs	Wed 5/21/14	Wed 5/21/14	80	▼ All team[40%]												
82	✓	☛	Collect & update document	4 hrs	Wed 5/21/14	Thu 5/22/14	80SS,81	▼ LinhBTT[40%],DươngND[65%]												
83	✓	☛	Release prototype B, documen	2 hrs	Thu 5/22/14	Thu 5/22/14	80,82	▼ TuấnN[20%],ThànhDN[20%]												
84	✓	☛	Public API of Register/Login/ User management component	4 hrs	Thu 5/22/14	Thu 5/22/14	83SS	◆ 5/22												

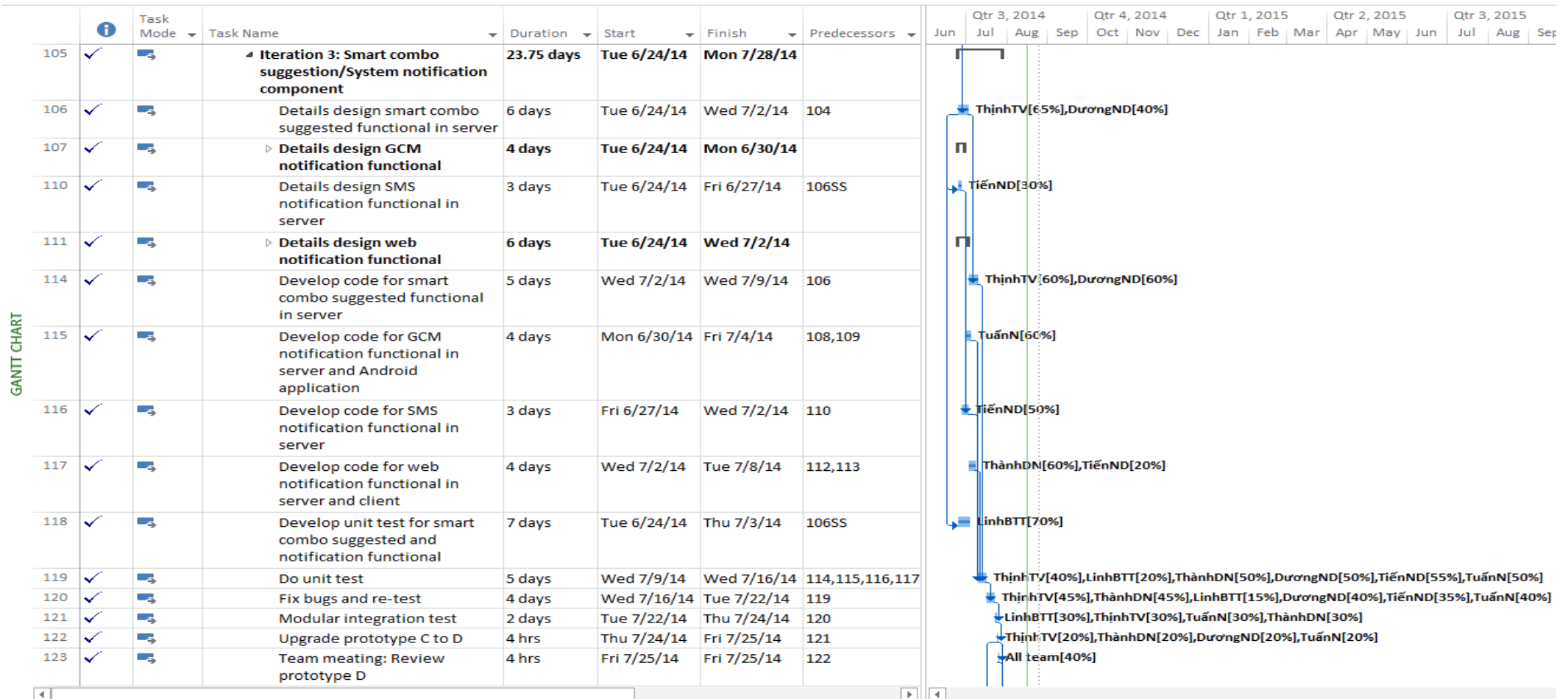
ANNT CHART



# PHASE 3 – INTERACTION 2



# PHASE 3 – INTERACTION 3

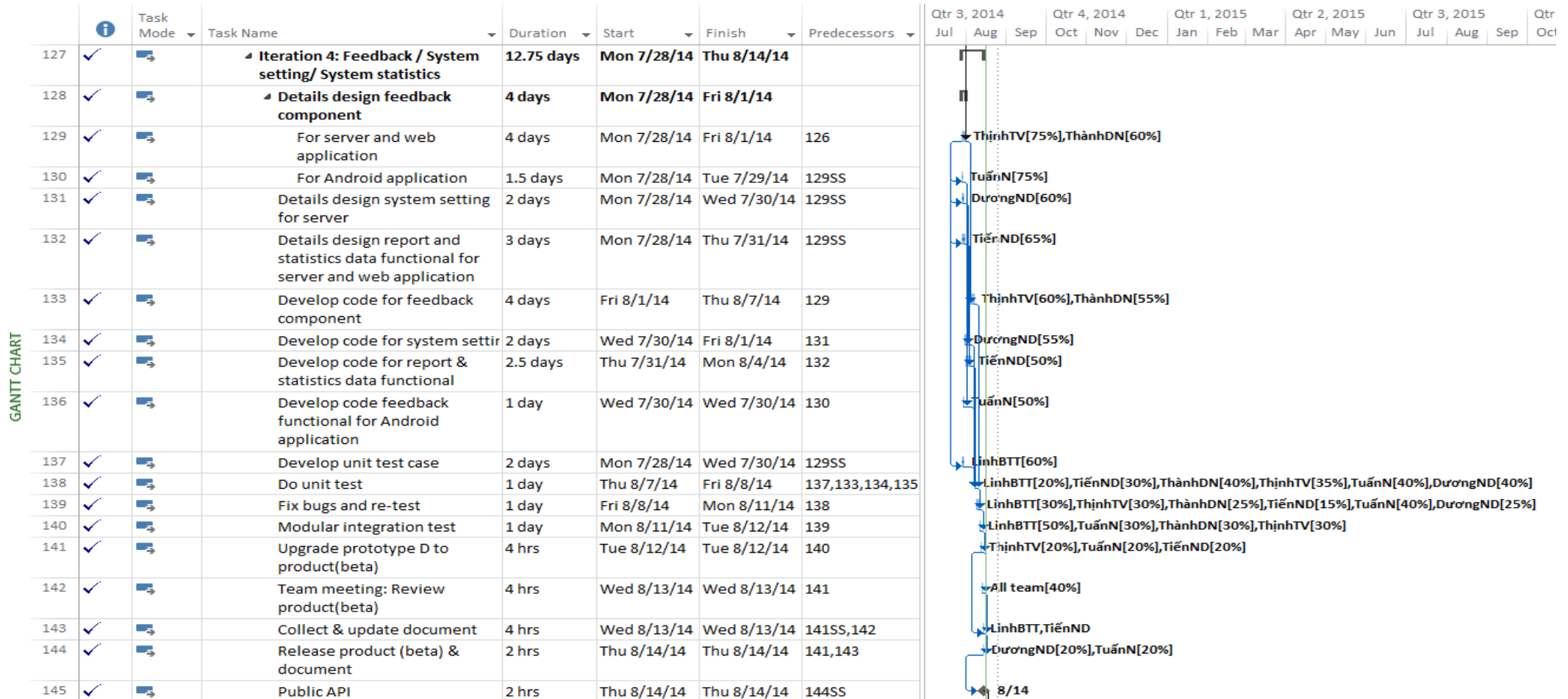


# PHASE 3 – INTERACTION 3 (CON.)

	i	Task Mode ▾	Task Name ▾	Duration ▾	Start ▾	Finish ▾	Predecessors ▾	Qtr 3, 2014			Qtr 4, 2014			Qtr 1, 2015				
								Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
124	✓		Collect & update document	4 hrs	Fri 7/25/14	Mon 7/28/14	122SS,123											
125	✓		Release prototype D & document	2 hrs	Mon 7/28/14	Mon 7/28/14	122,124											
126	✓		Public API of System notification	2 hrs	Mon 7/28/14	Mon 7/28/14	125SS											

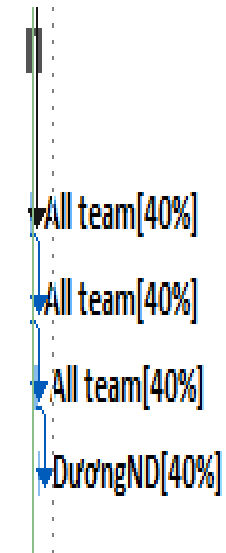
  


# PHASE 3 – INTERACTION 4



# PHASE 4

146	✓	📌	Phase 4: System testing, Deployment & System delivery	3 days	Thu 8/14/14	Tue 8/19/14	
147	✓	📌	Develop system testing case	1 day	Thu 8/14/14	Fri 8/15/14	145
148	✓	📌	Do system test	4 hrs	Fri 8/15/14	Fri 8/15/14	147
149	✓	📌	Deploy system	1 day	Fri 8/15/14	Mon 8/18/14	148
150	✓	📌	Delivery system	4 hrs	Mon 8/18/14	Tue 8/19/14	149





# SOURCE CONTROL



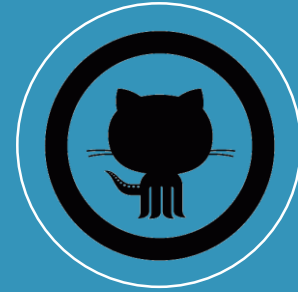
OneDrive



Google  
Drive



Visual  
Studio  
Online



GitHub



# RISK

## Human Resources

- Personal shortfall

## Technology

- Different platforms and device.
- Lack of support tools

## Scope

- Too big

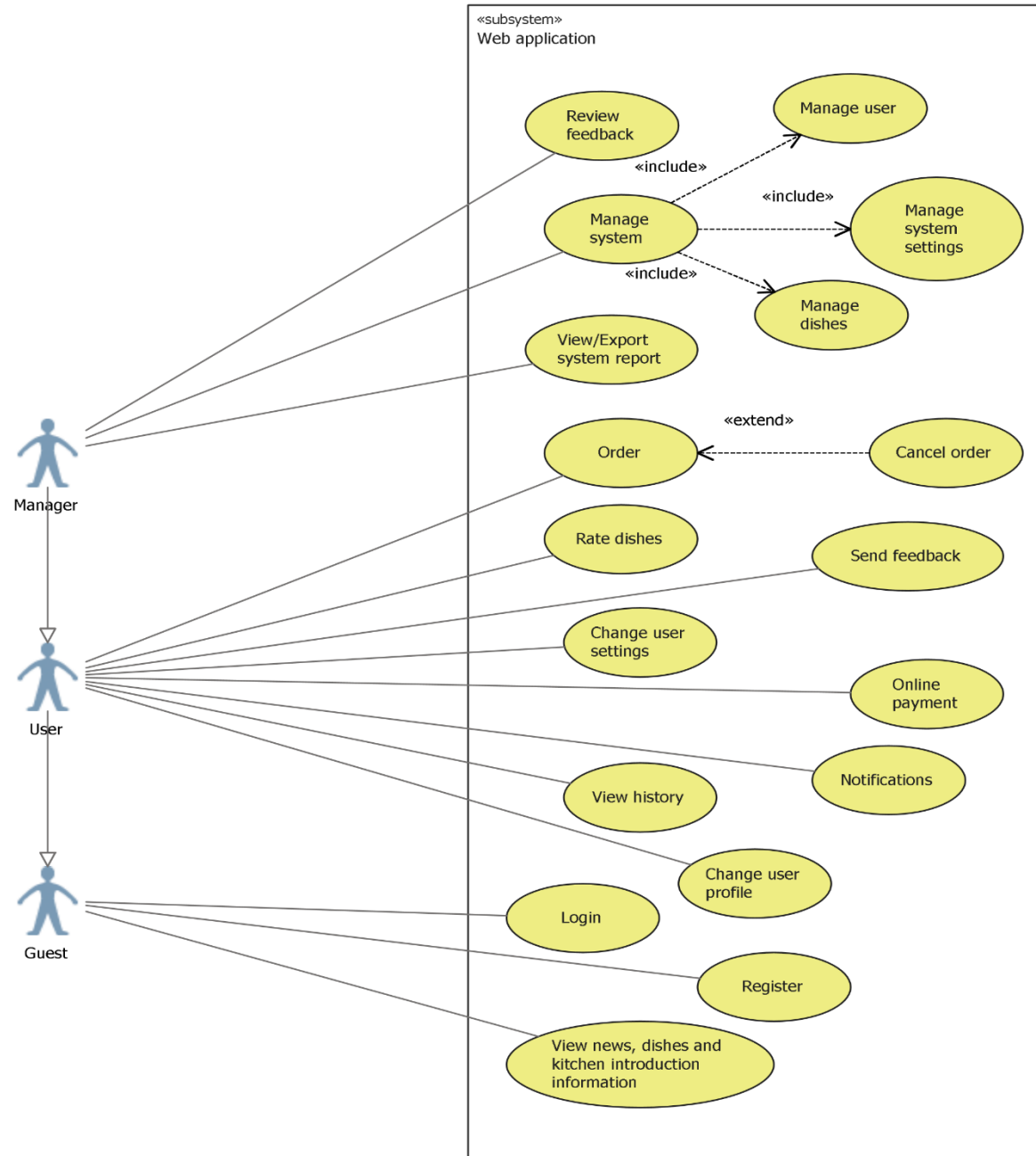
## Time

- 4 months maybe not enough



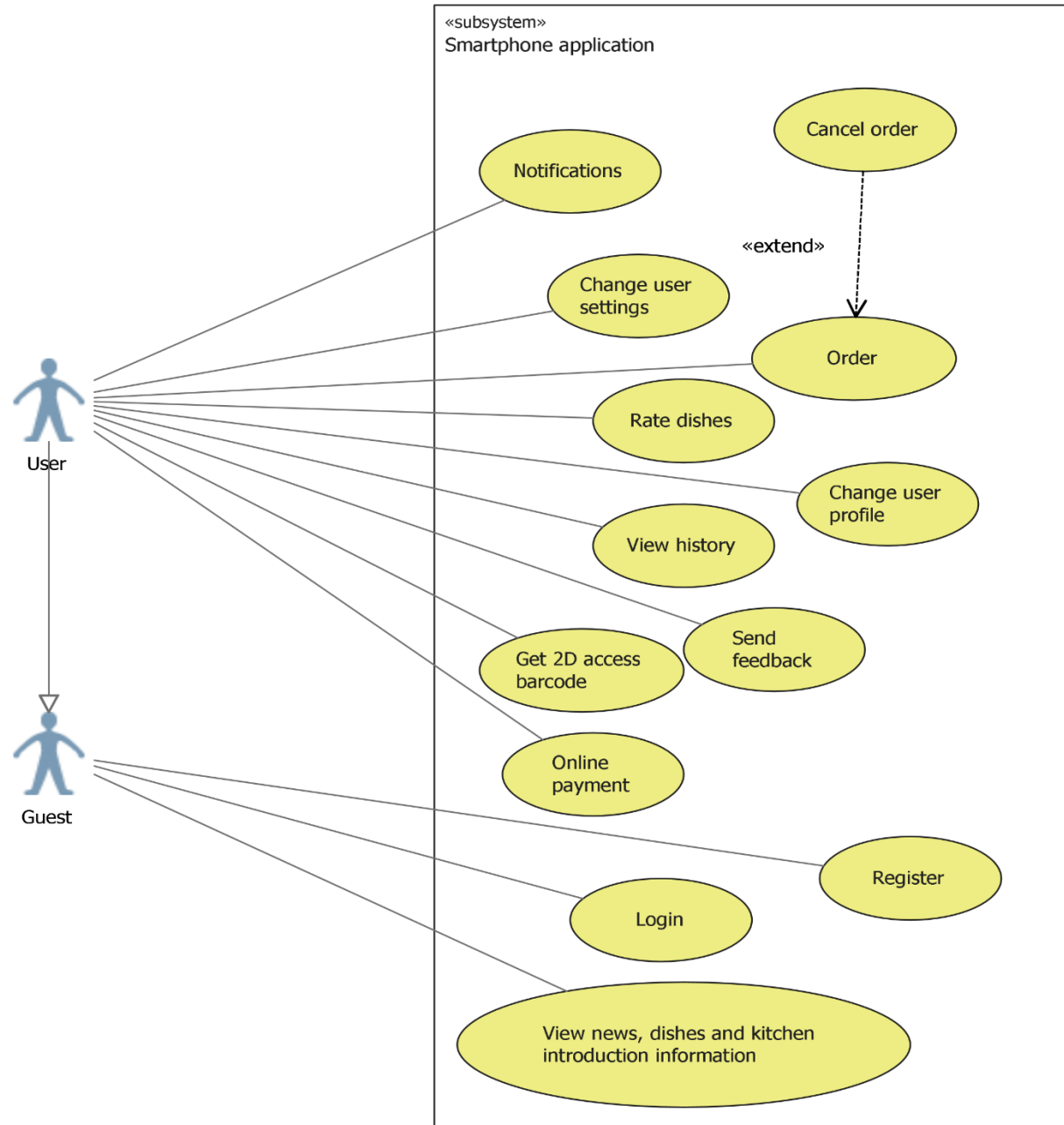
# USE CASE

Web application



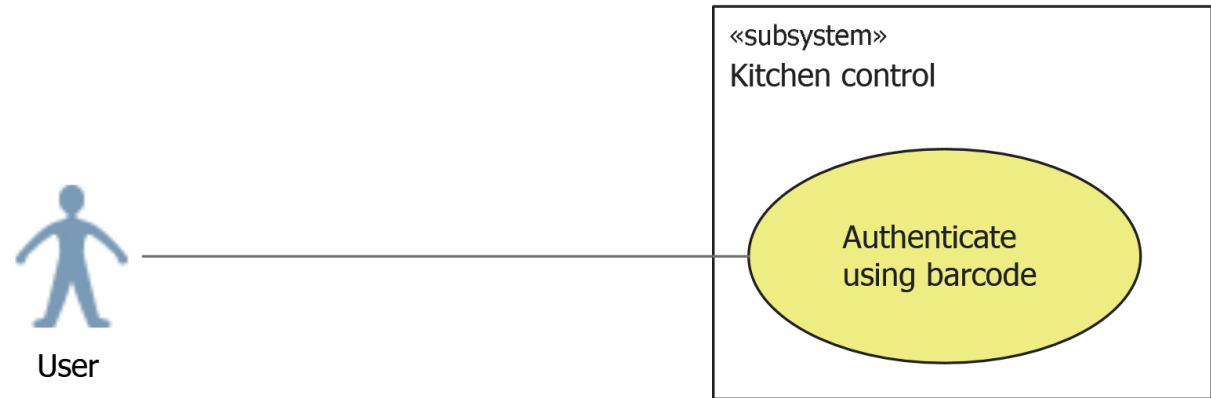
# USE CASE

## Android application

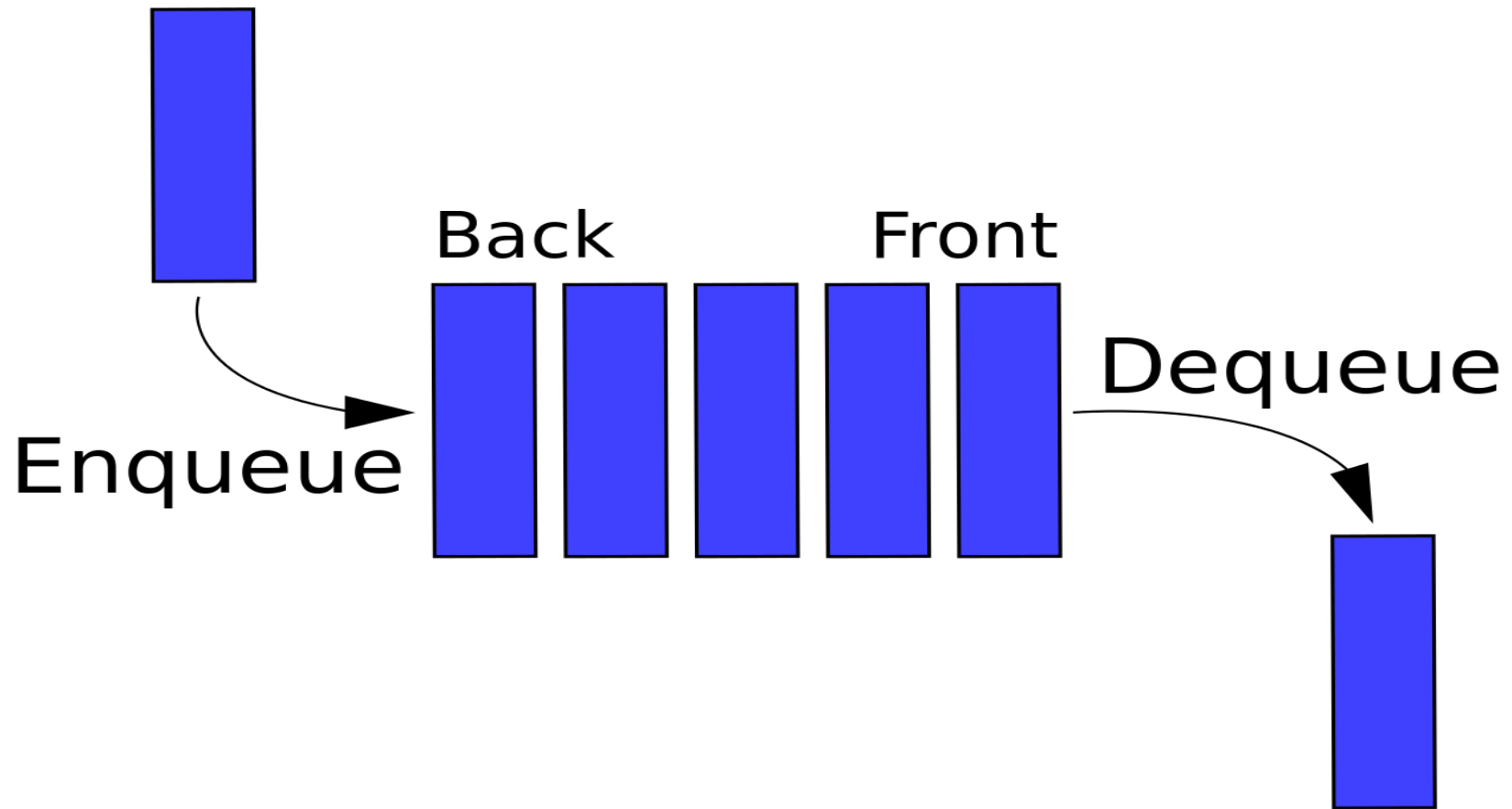


# USE CASE

## Kitchen Control application



# ACCESS CONTROL ALGORITHM



# ACCESS CONTROL ALGORITHM



# SUGGEST COMBO ALGORITHM

- Apriori Algorithm

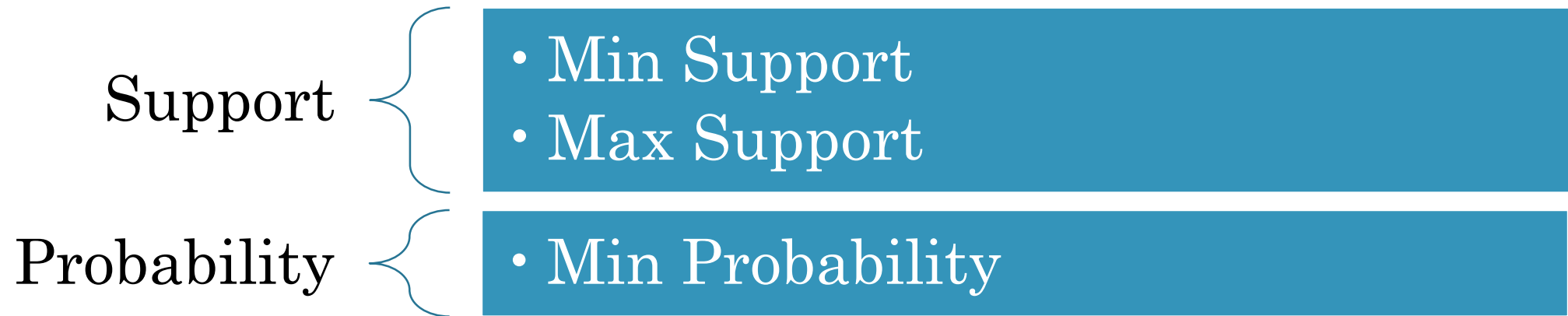
```
Apriori( $T, \epsilon$ )
   $L_1 \leftarrow \{\text{large 1 - itemsets}\}$ 
   $k \leftarrow 2$ 
  while  $L_{k-1} \neq \emptyset$ 
     $C_k \leftarrow \{a \cup \{b\} \mid a \in L_{k-1} \wedge b \in \bigcup L_{k-1} \wedge b \notin a\}$ 
    for transactions  $t \in T$ 
       $C_t \leftarrow \{c \mid c \in C_k \wedge c \subseteq t\}$ 
      for candidates  $c \in C_t$ 
         $count[c] \leftarrow count[c] + 1$ 
       $L_k \leftarrow \{c \mid c \in C_k \wedge count[c] \geq \epsilon\}$ 
       $k \leftarrow k + 1$ 
  return  $\bigcup_k L_k$ 
```



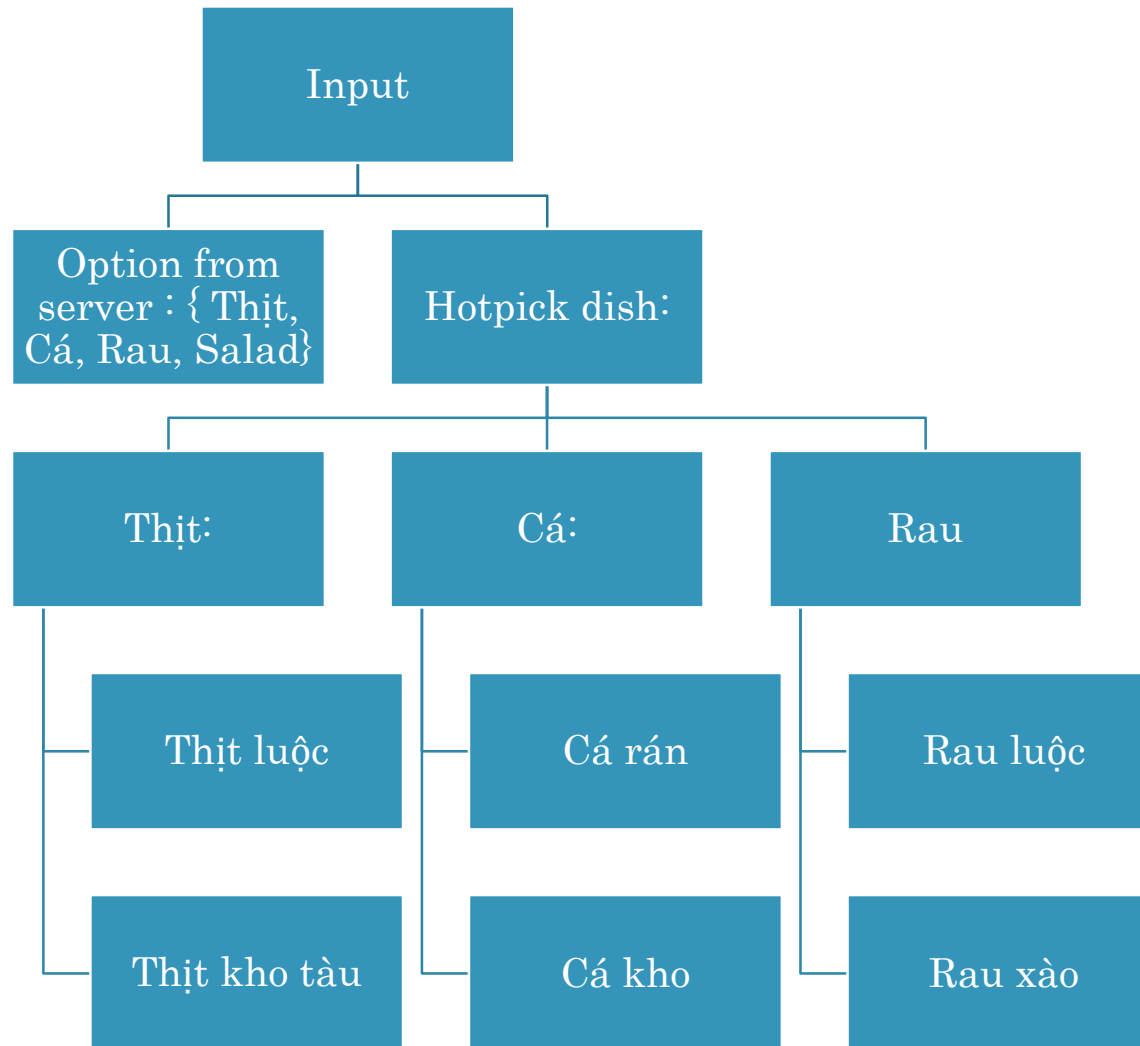


# SUGGEST COMBO ALGORITHM

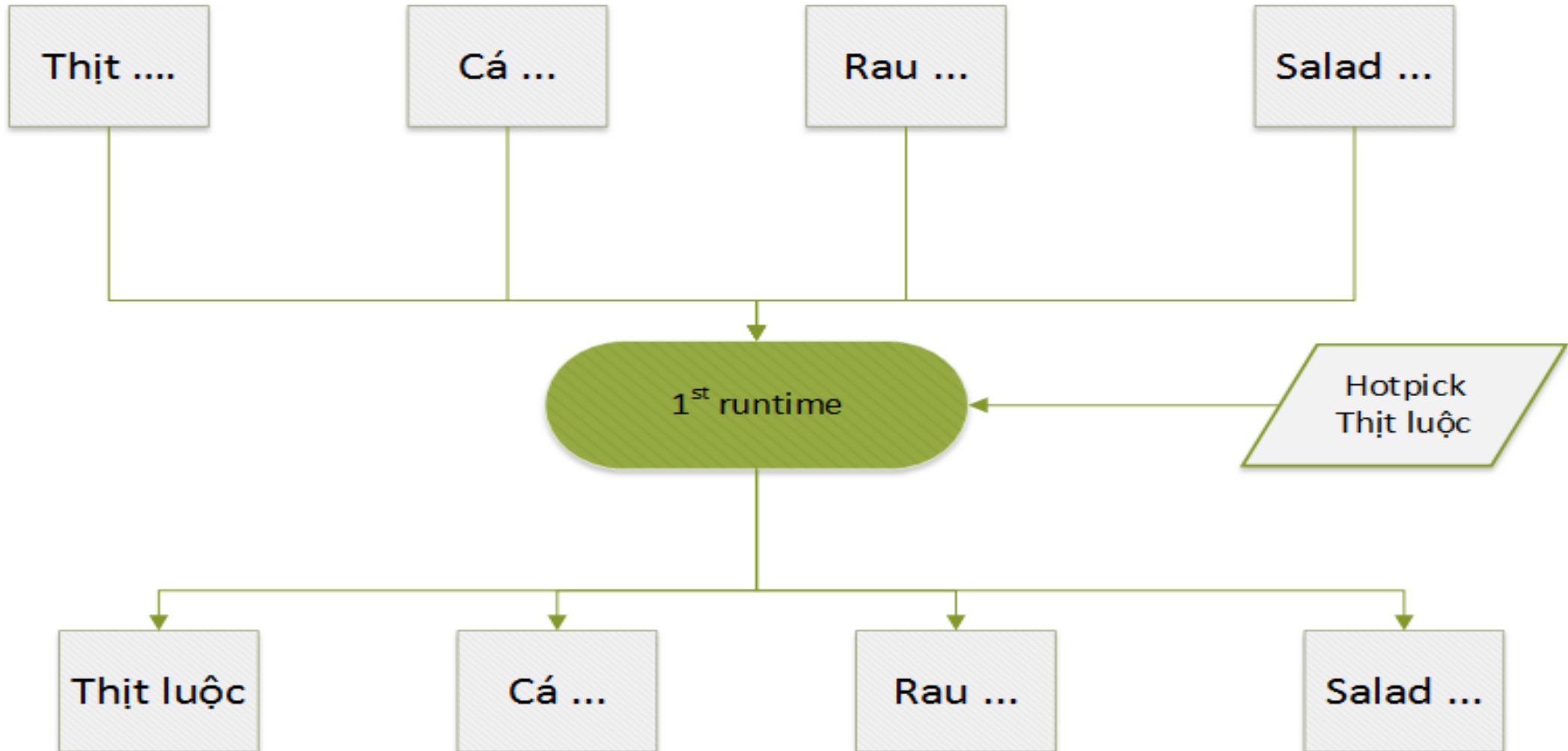
- Microsoft Association Algorithm



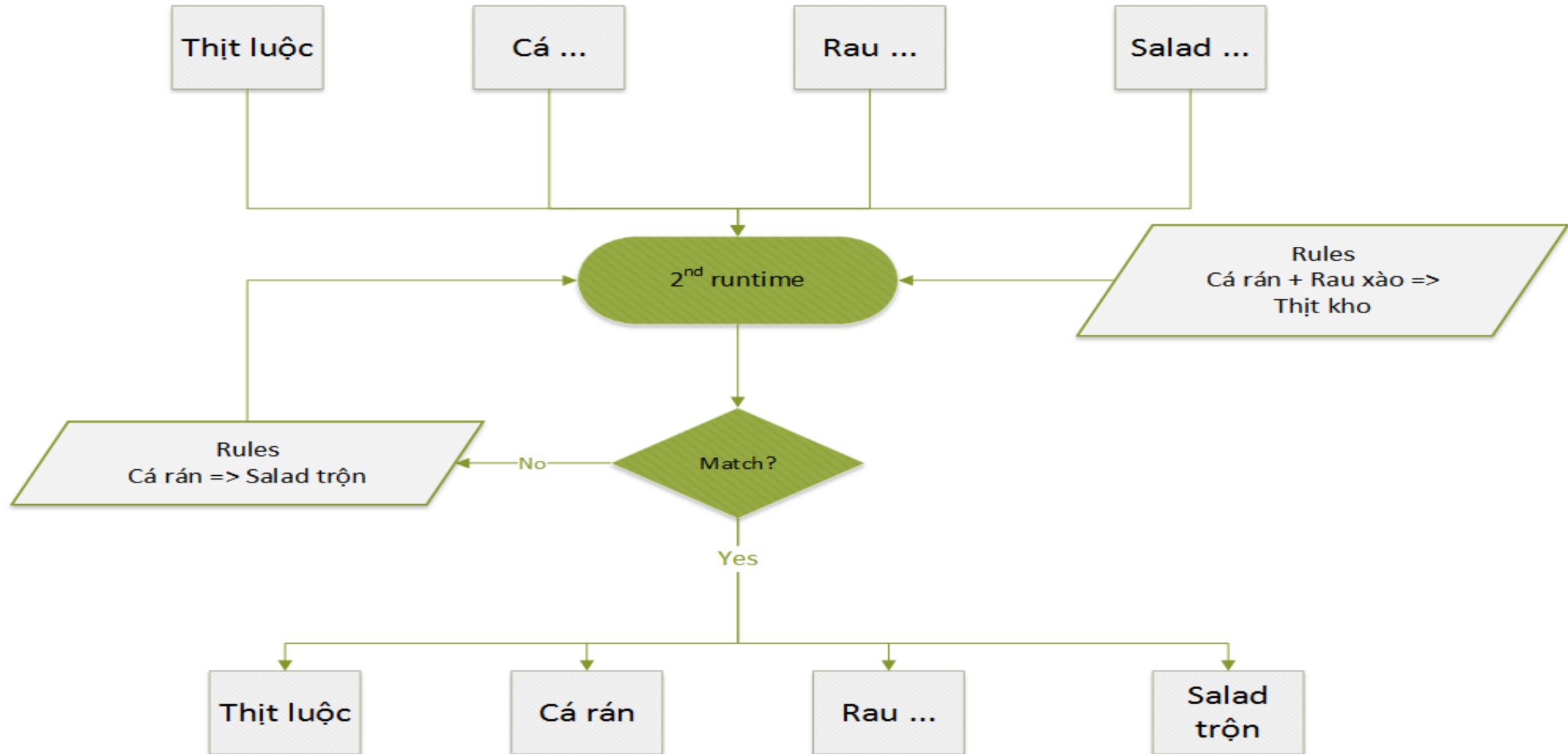
# SUGGEST COMBO ALGORITHM



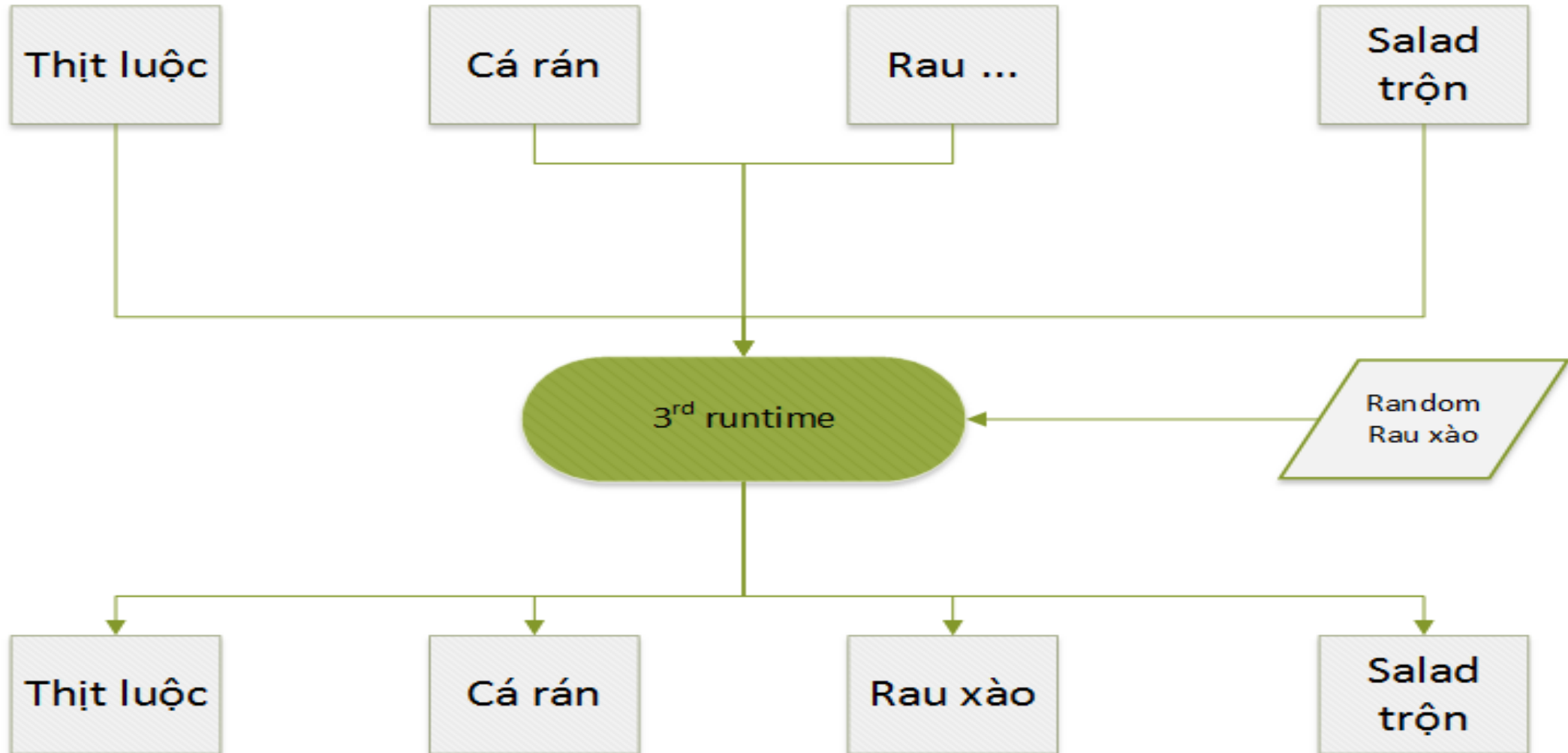
# SUGGEST COMBO ALGORITHM



# SUGGEST COMBO ALGORITHM



# SUGGEST COMBO ALGORITHM



# SYSTEM DESIGN

System Architecture Design

ERD

Class diagram

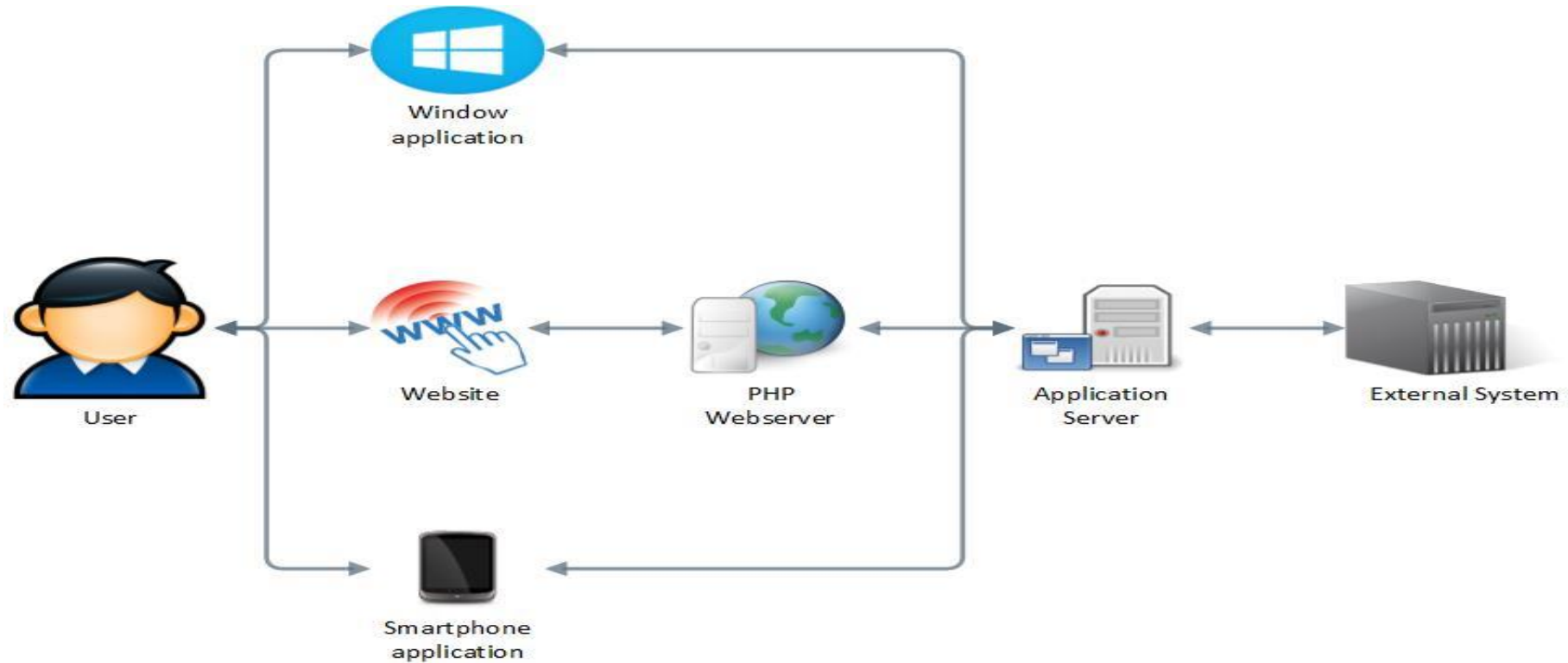
Sequence Diagram

Data warehouse



# SYSTEM ARCHITECTURE DESIGN

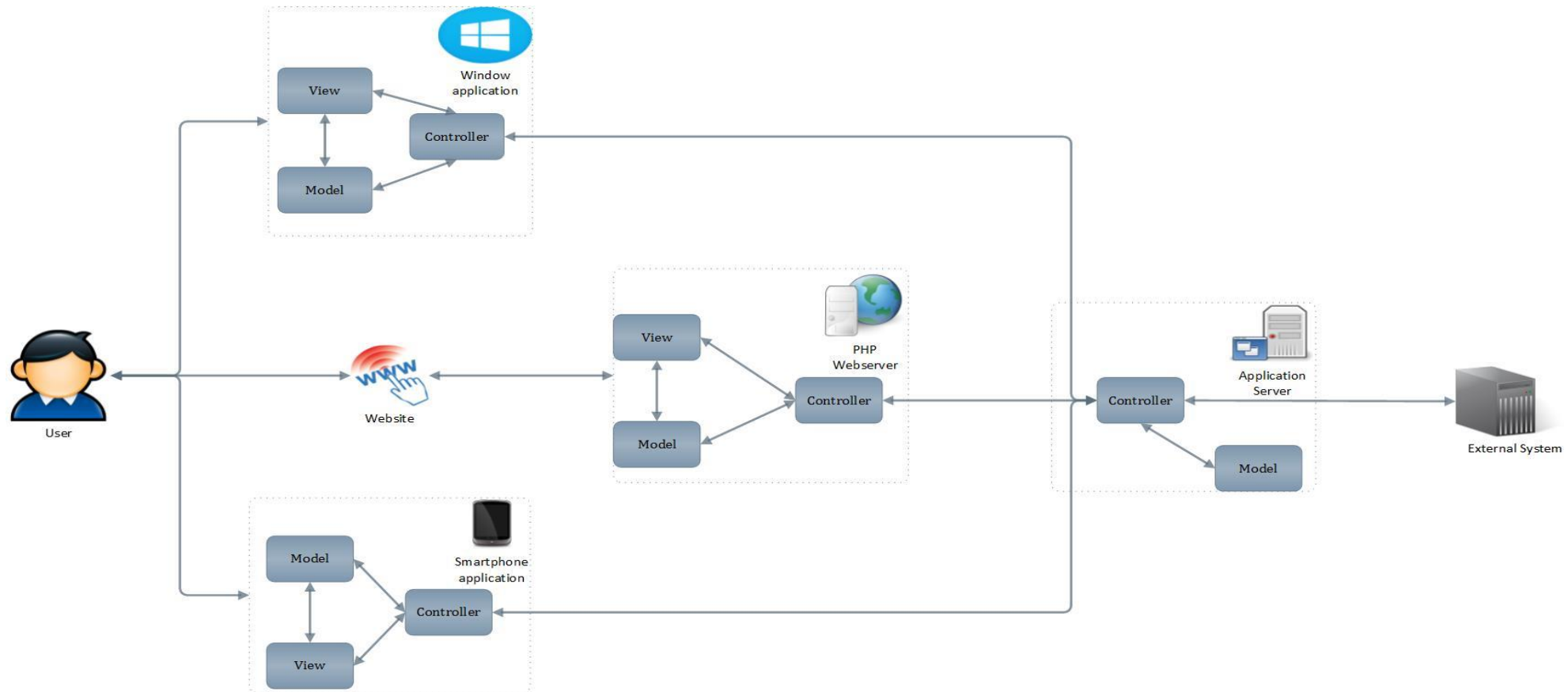
- Physical design



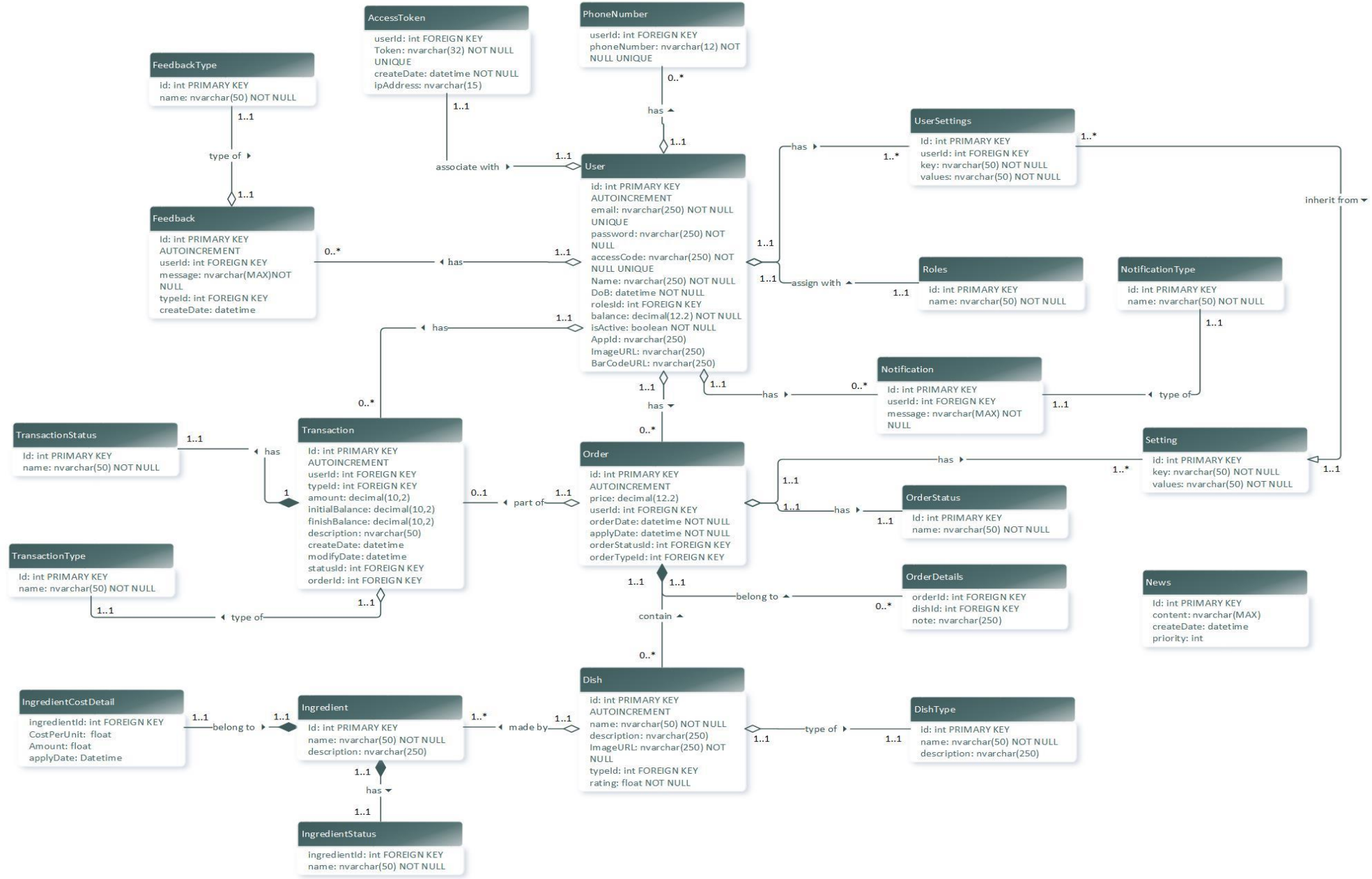


# SYSTEM ARCHITECTURE DESIGN

- Logical design

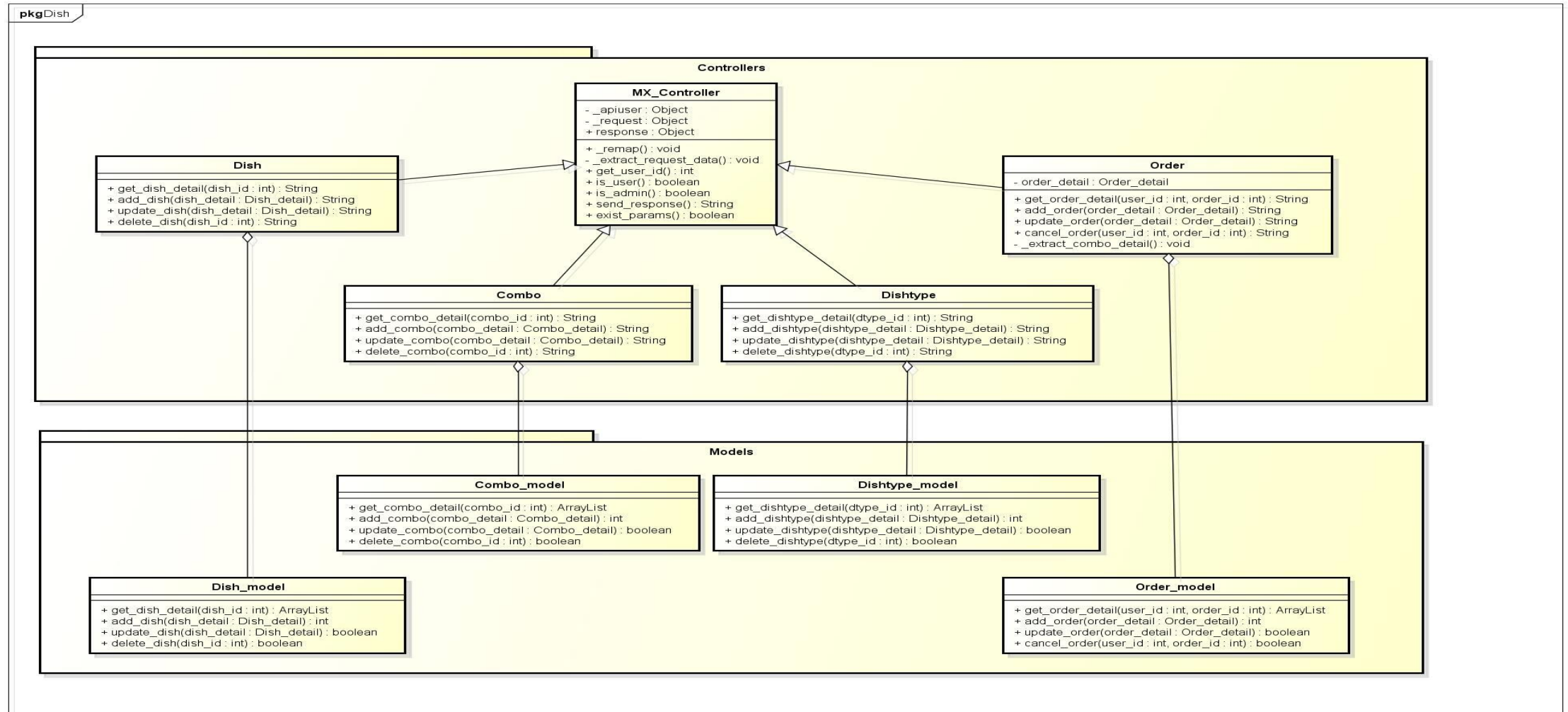


# ERD



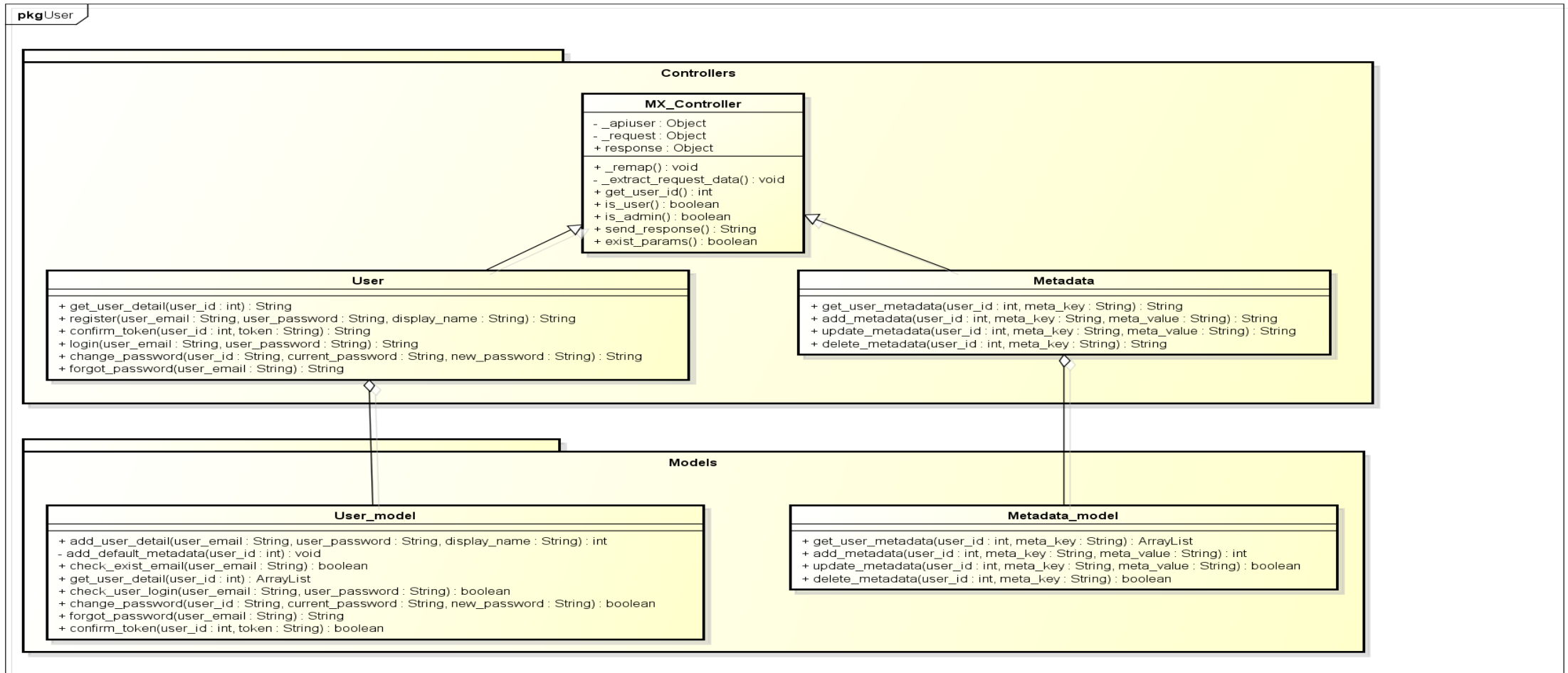
# CLASS DIAGRAM – APPLICATION SERVER

## ■ Dish Module



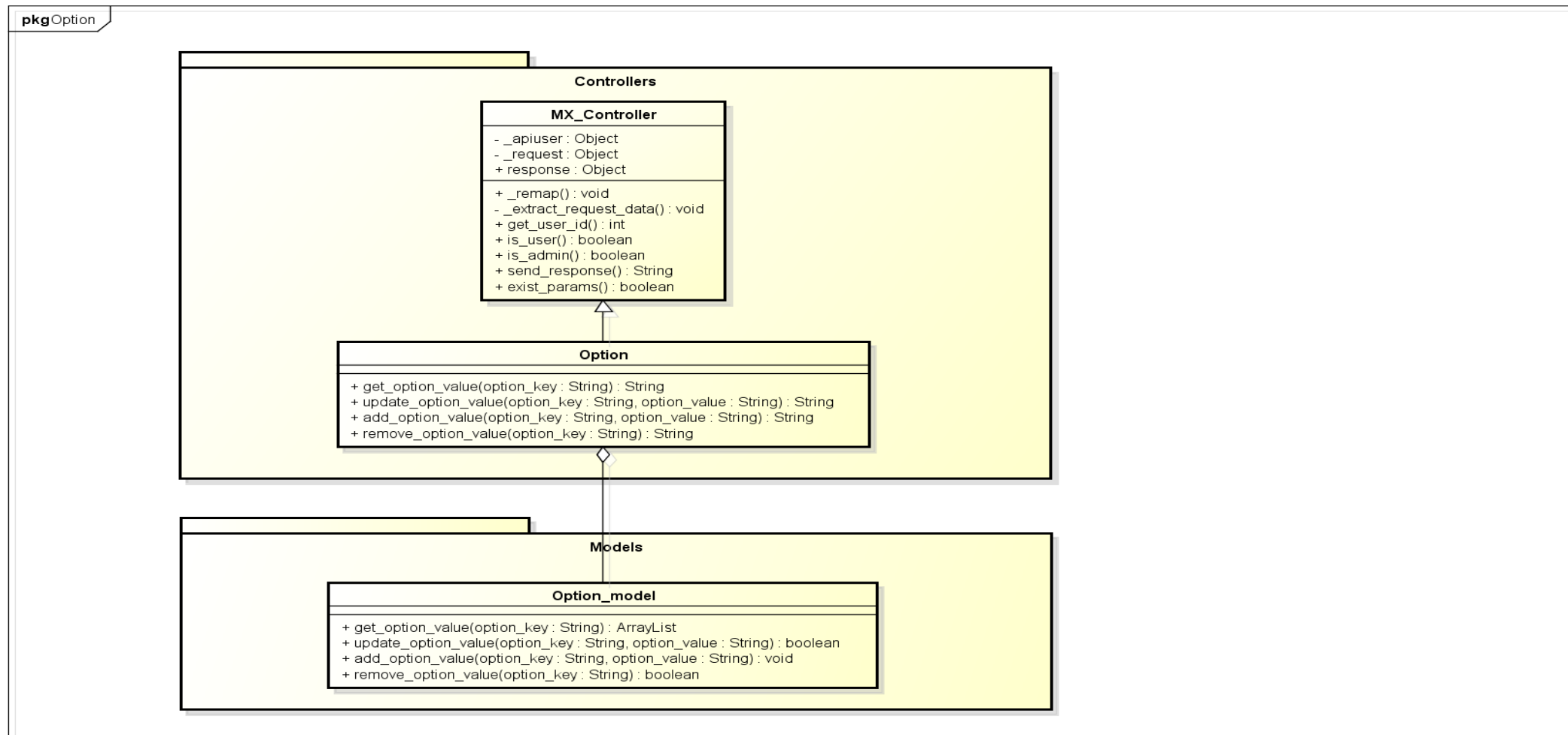
# CLASS DIAGRAM – APPLICATION SERVER

## ▪ User Module



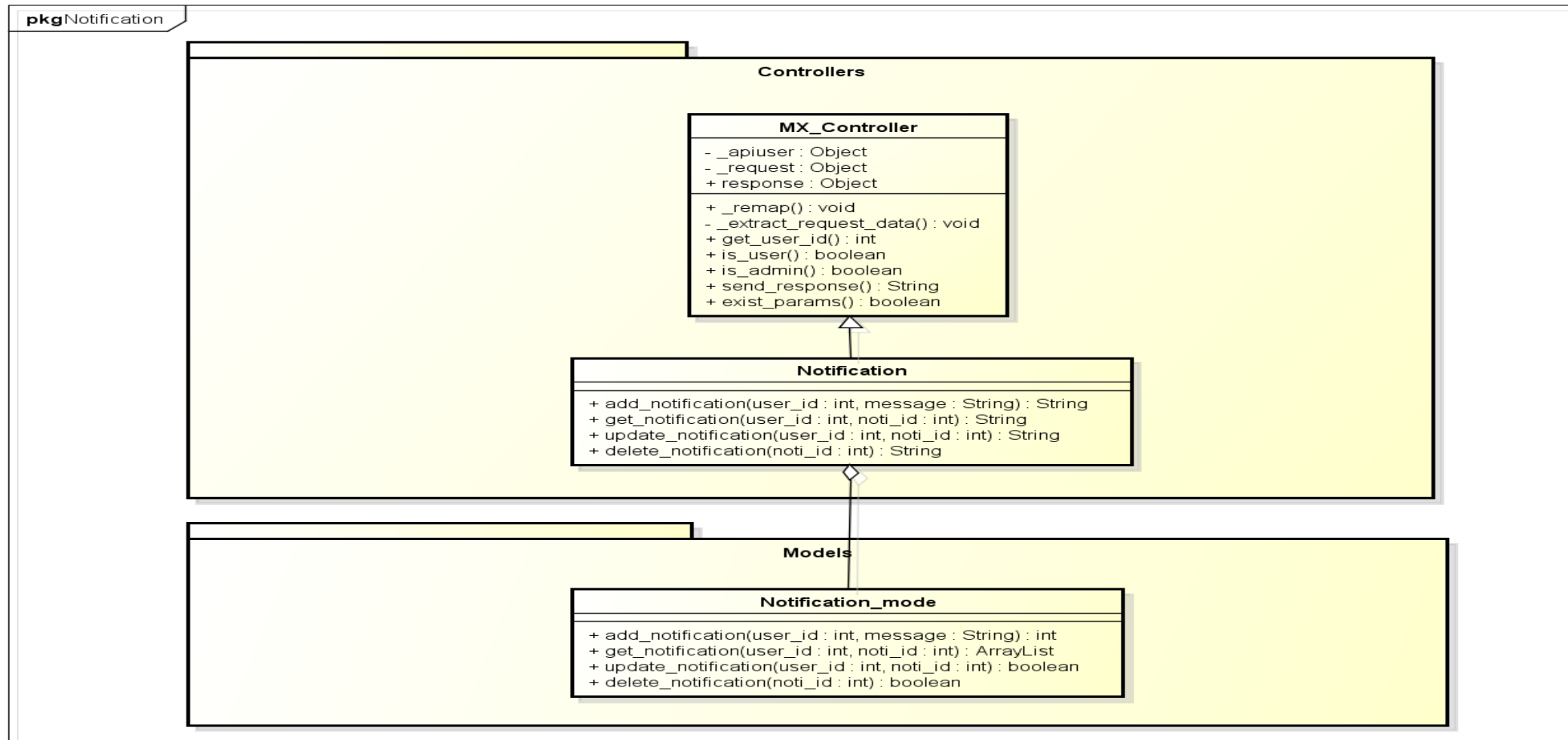
# CLASS DIAGRAM – APPLICATION SERVER

- Option Module



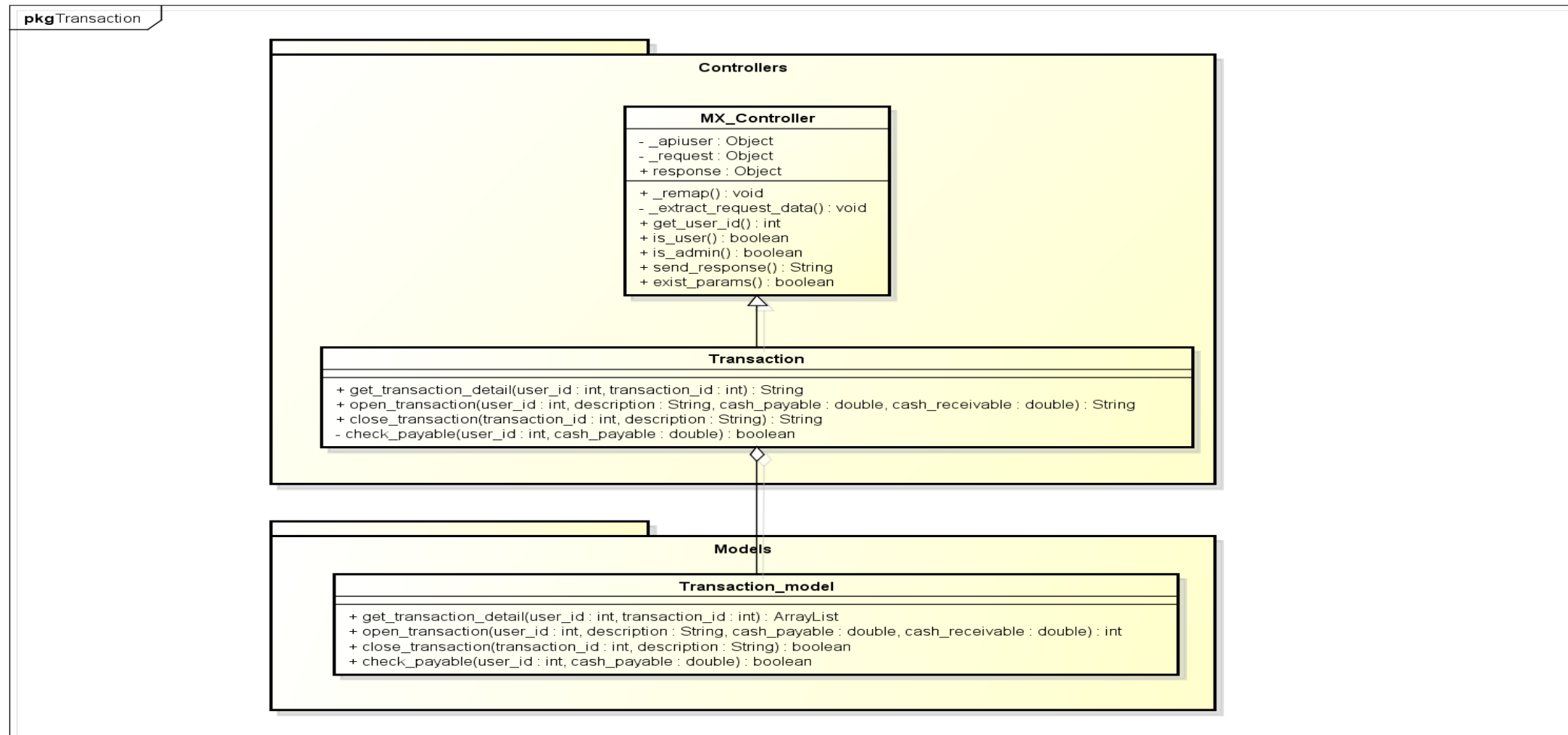
# CLASS DIAGRAM – APPLICATION SERVER

- Notification Module



# CLASS DIAGRAM – APPLICATION SERVER

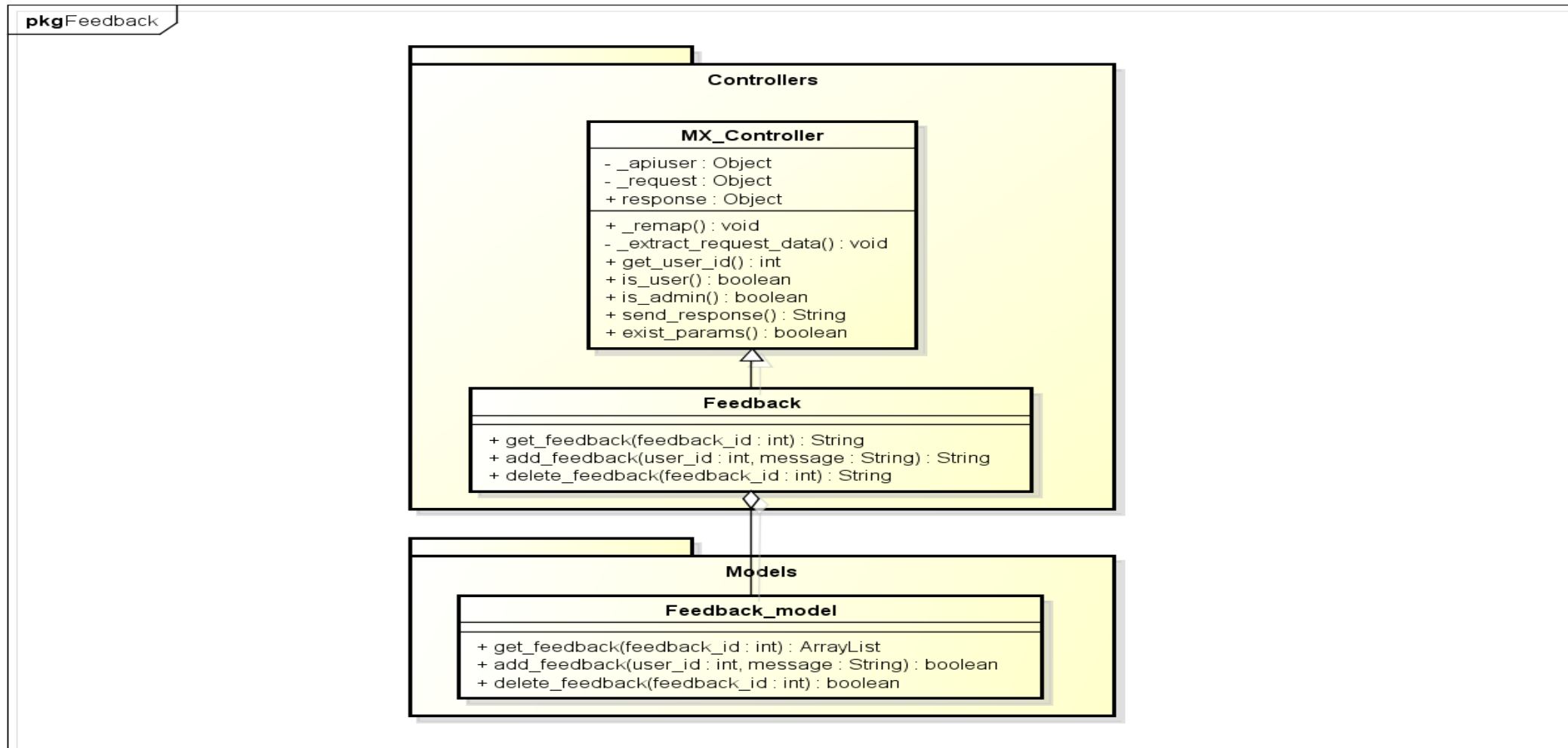
## Transaction Module





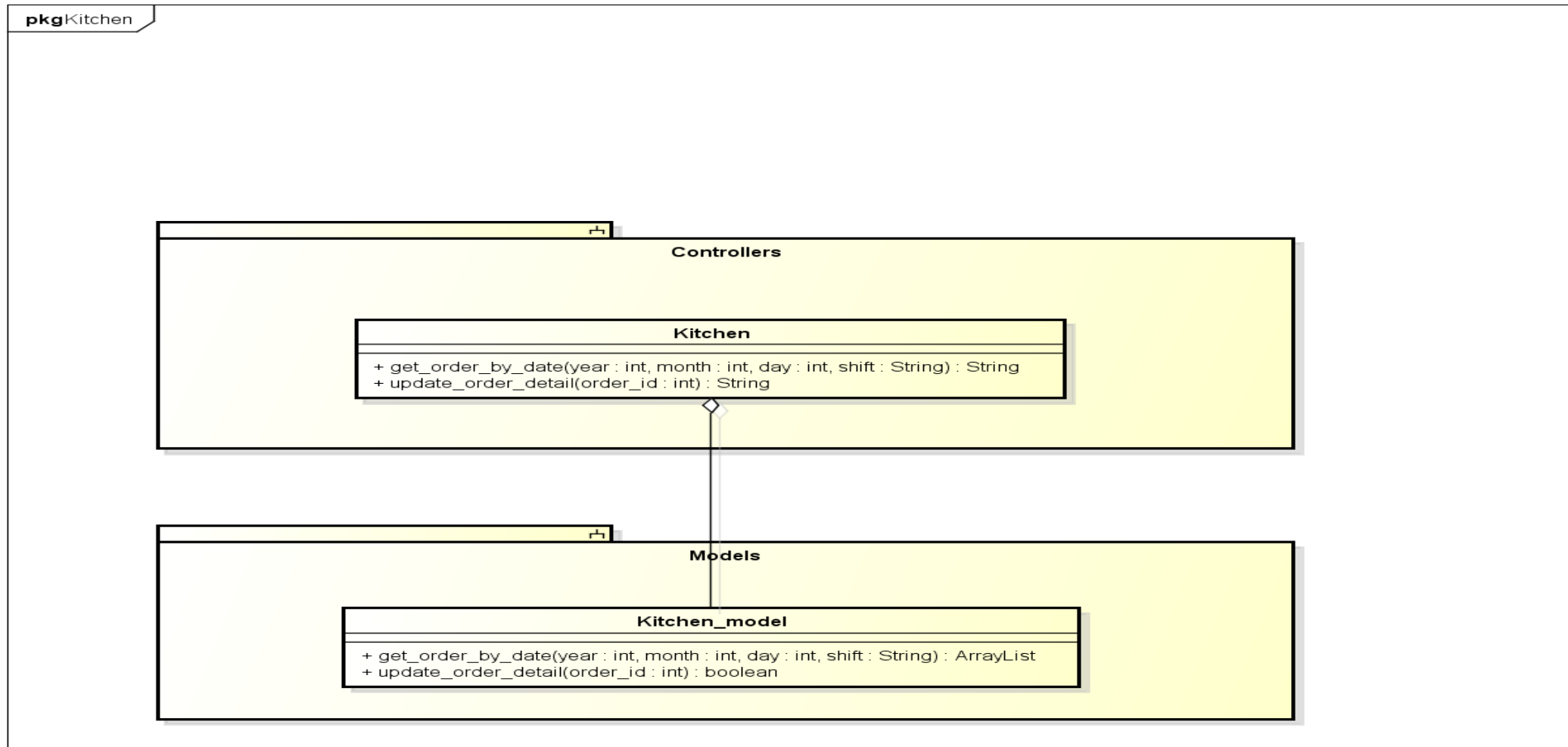
# CLASS DIAGRAM – APPLICATION SERVER

- Feedback Module

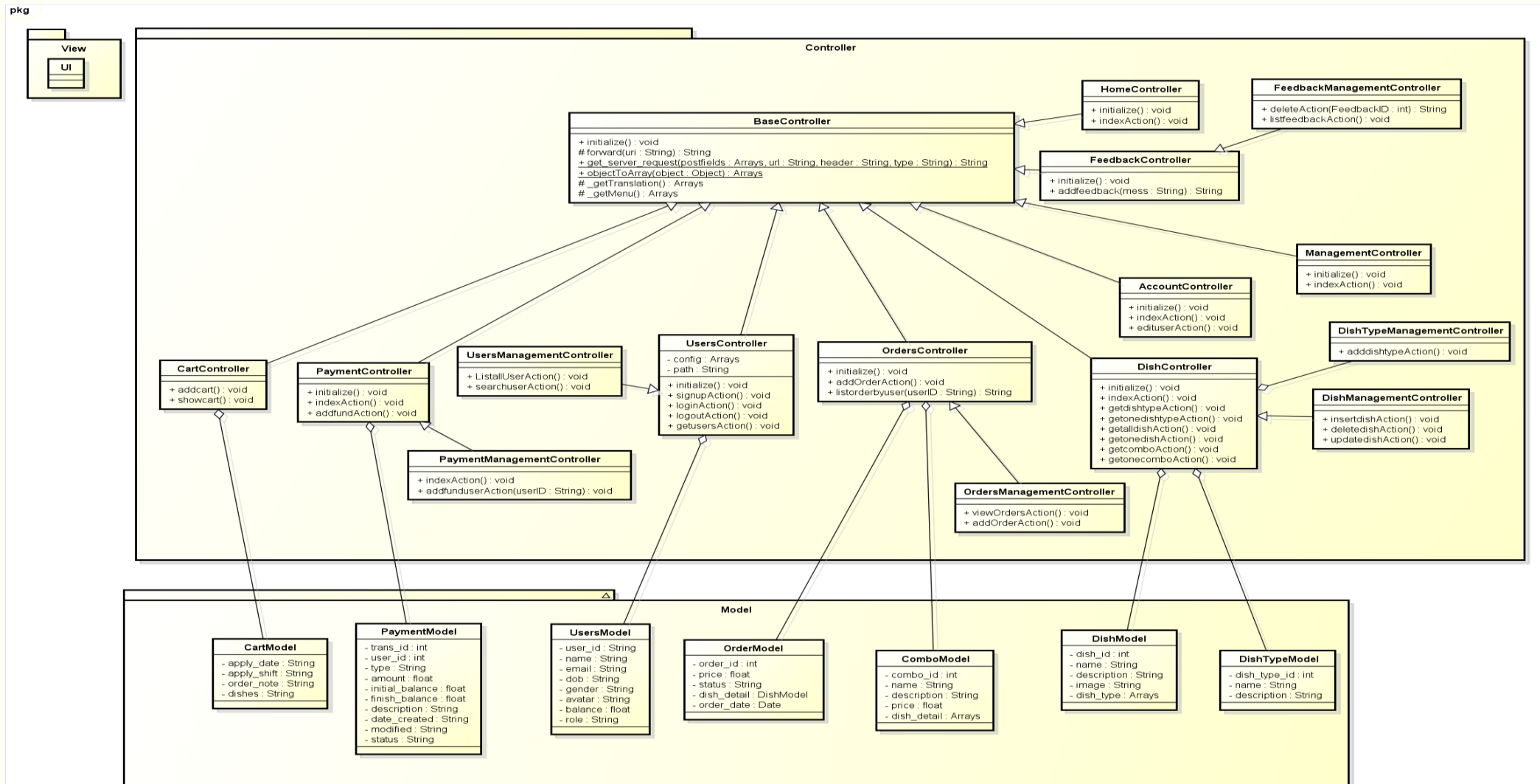


# CLASS DIAGRAM – APPLICATION SERVER

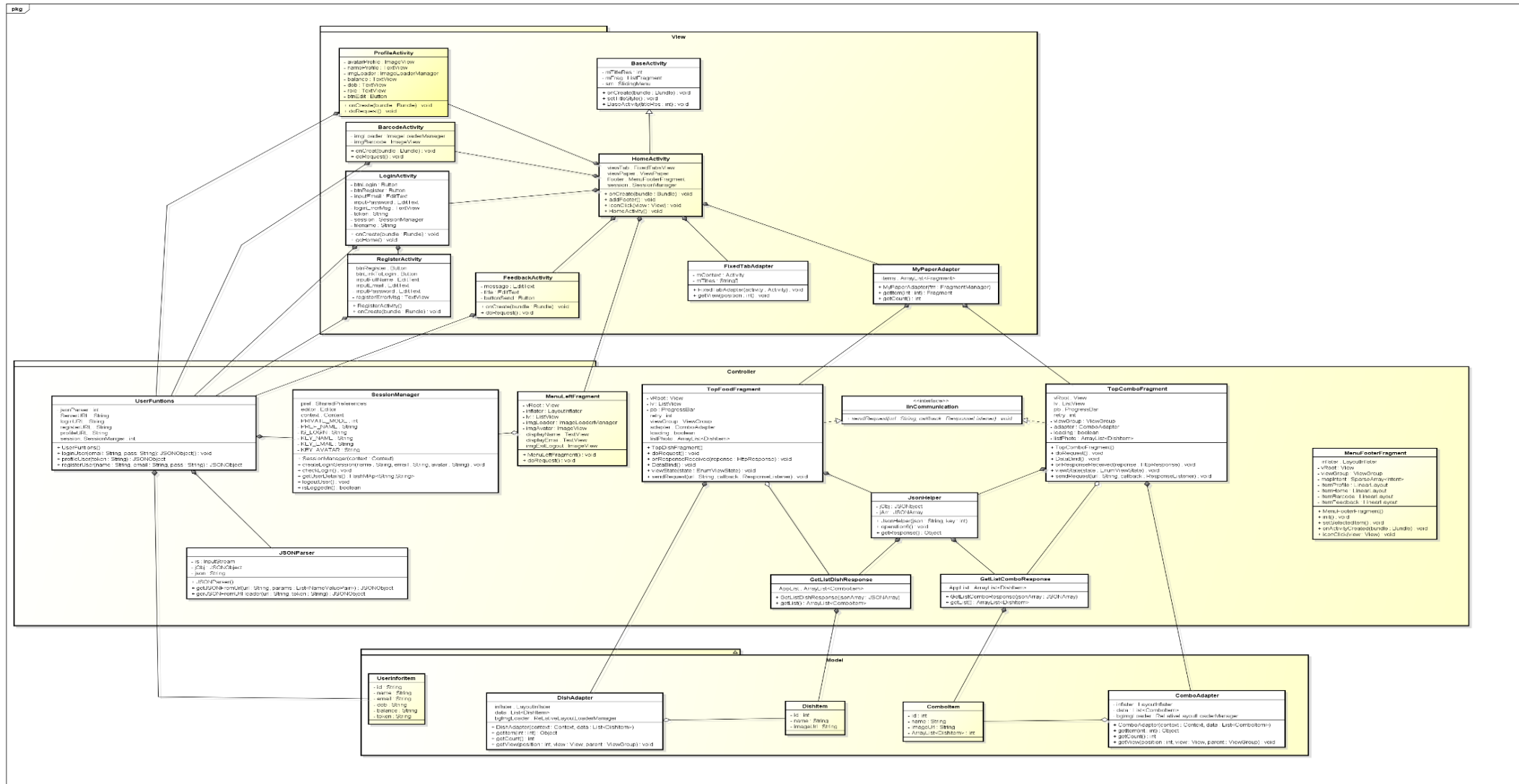
- Kitchen Module



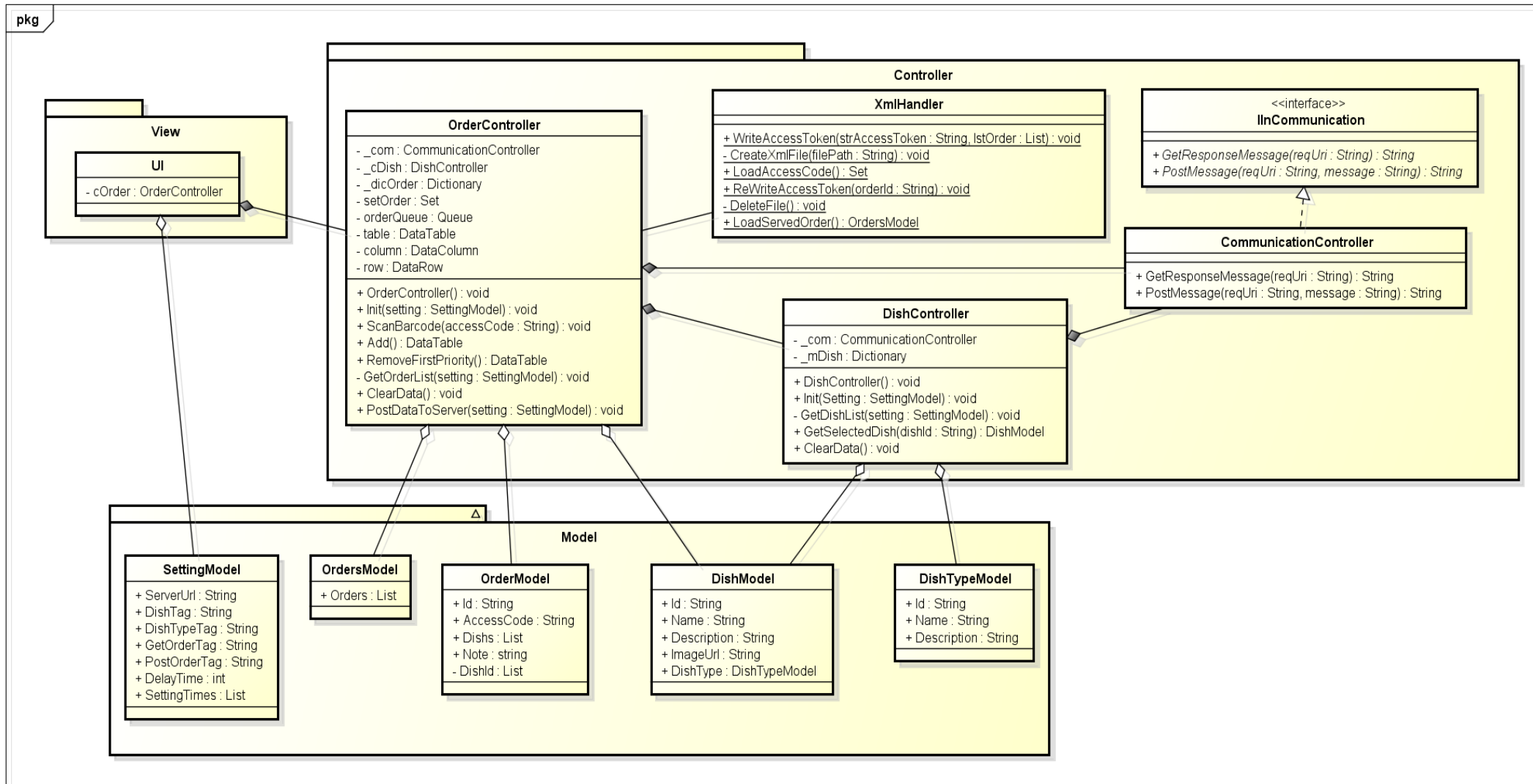
# CLASS DIAGRAM – WEB APPLICATION



# CLASS DIAGRAM – ANDROID APPLICATION

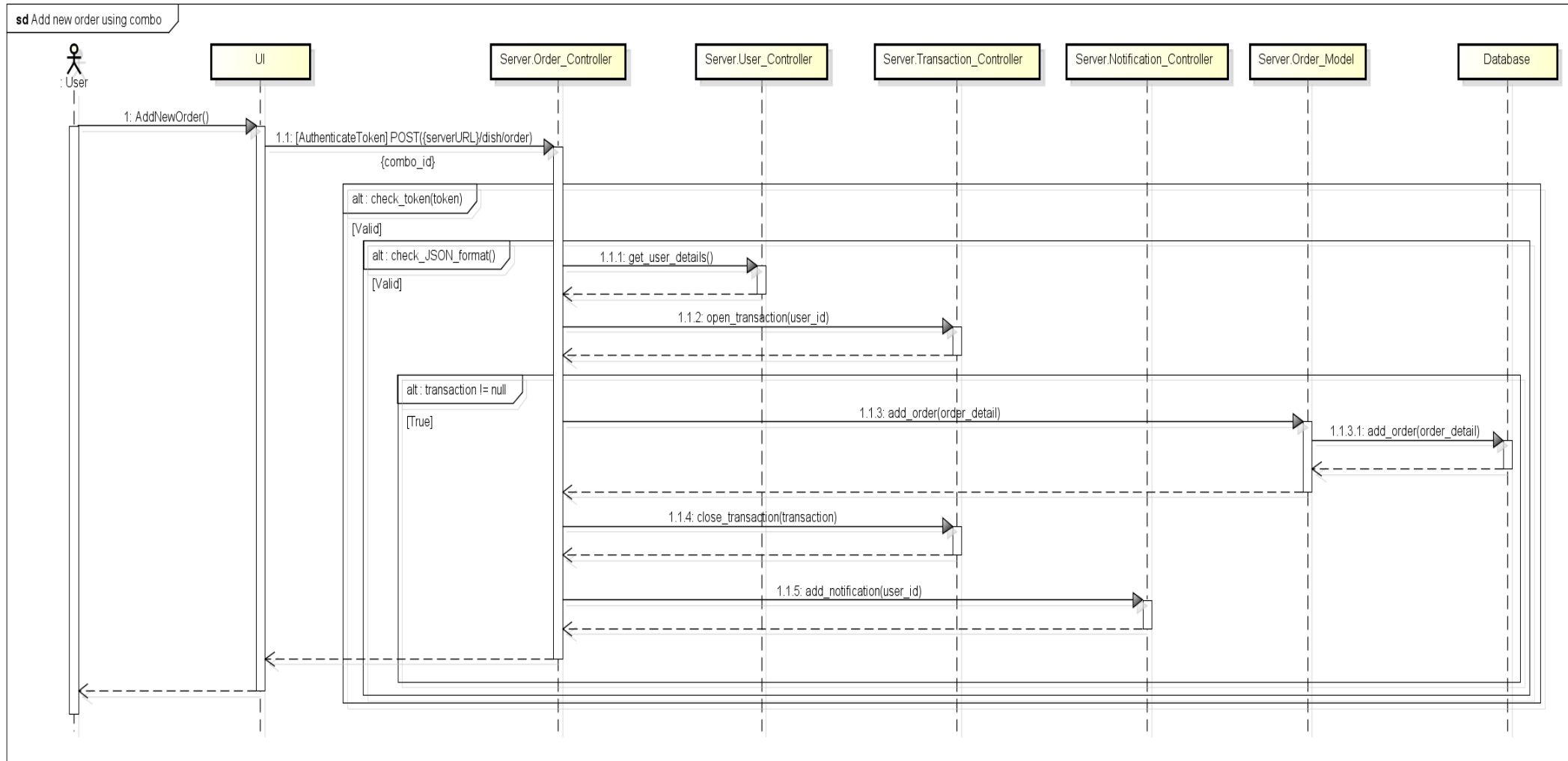


# CLASS DIAGRAM – KITCHEN CONTROL APPLICATION



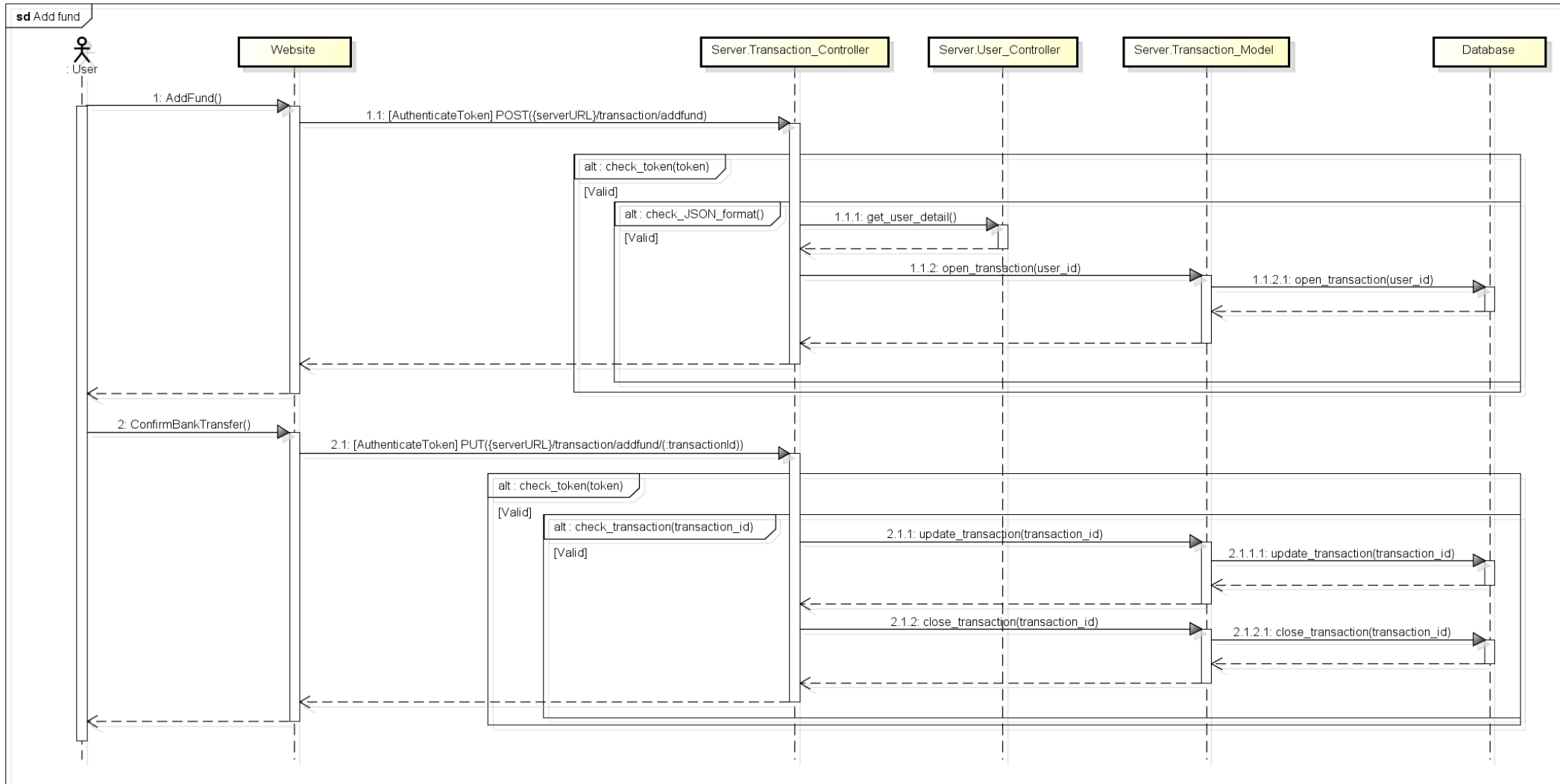
# SEQUENCE DIAGRAM

- New order using combo id



# SEQUENCE DIAGRAM

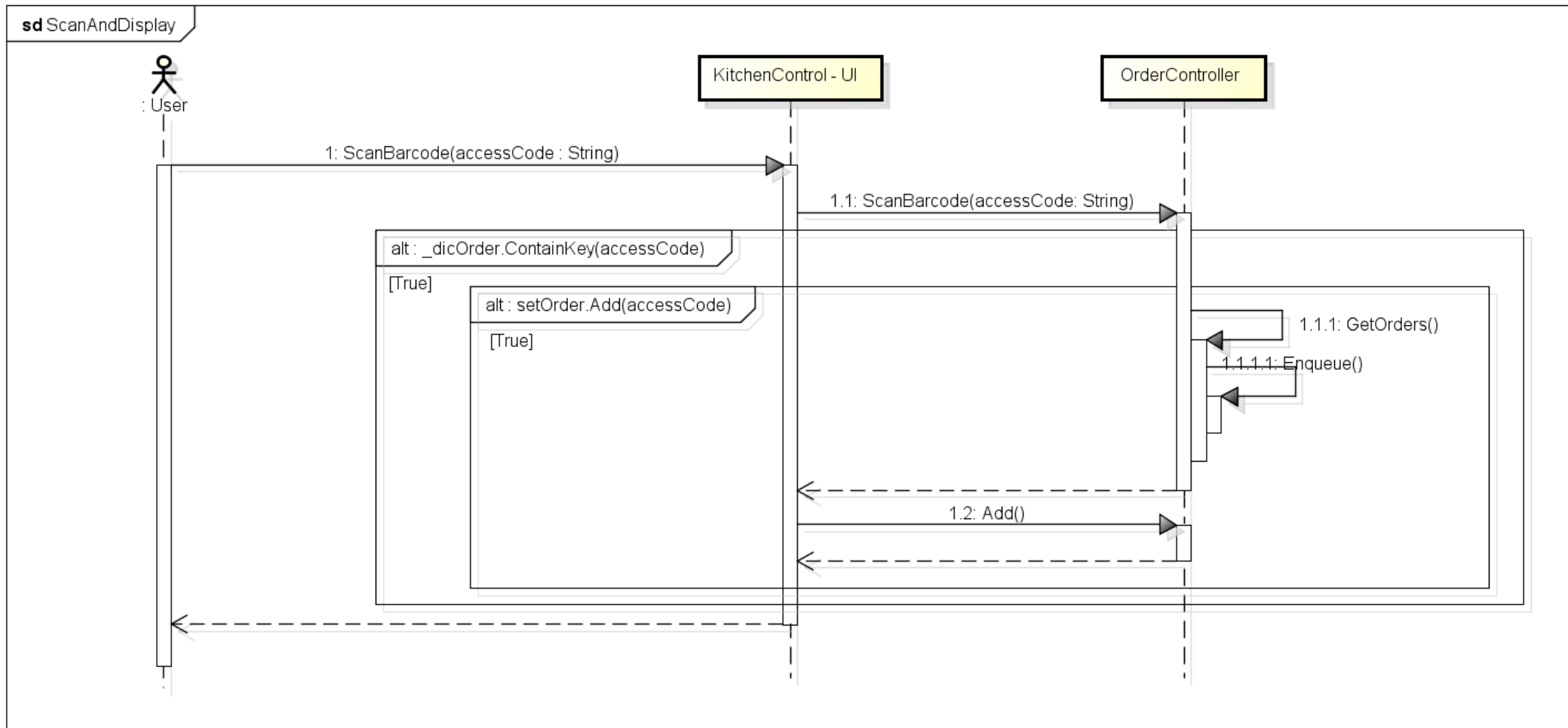
## ■ Add fund





# SEQUENCE DIAGRAM

- Scan access code and display order information



# DATA WAREHOUSE

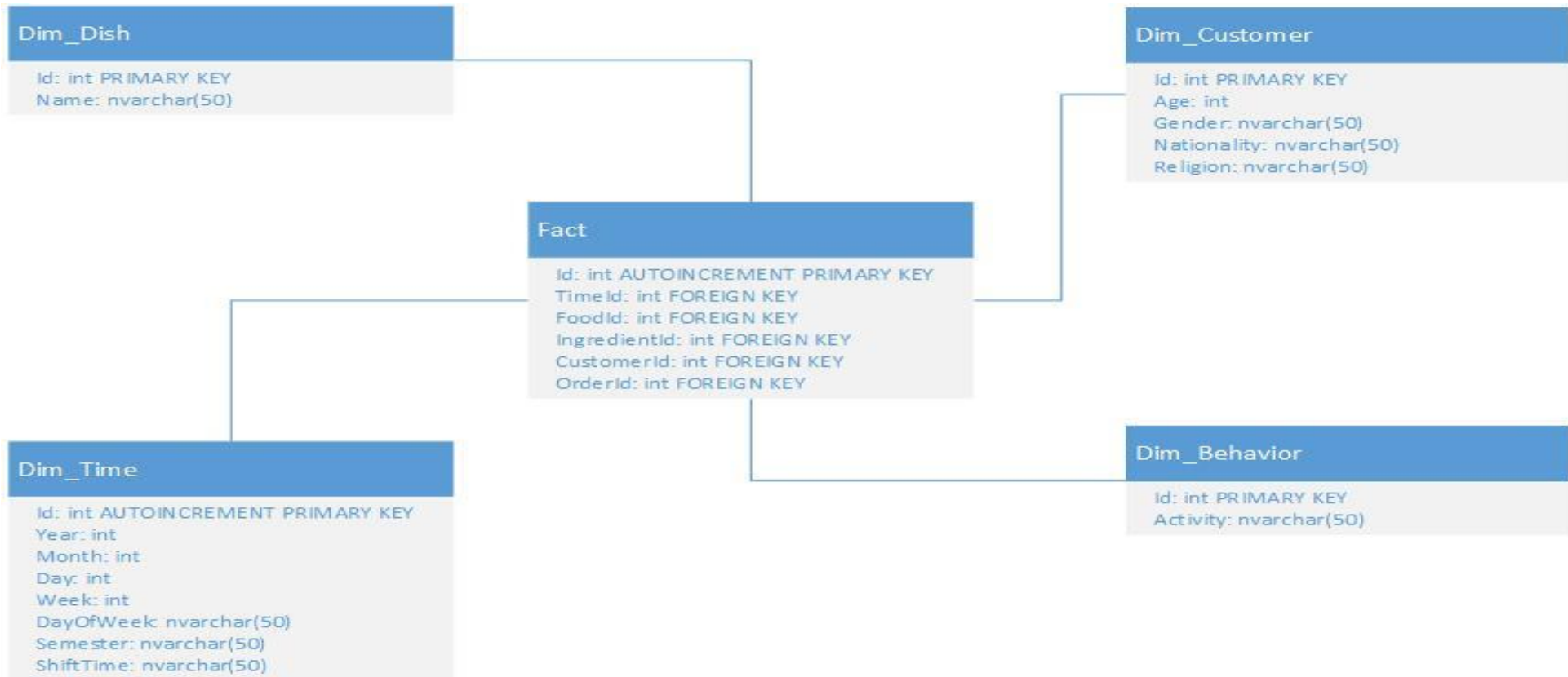
- Information package

Time	Customer	Dish	Behavior
Year	Age	Name	Activity
Month	Gender		
Day	Nationality		
Week	Religion		
DayOfWeek			
Semester			
ShiftTime			
Measured Values	User favorite, User behavior & history, Food frequency request		



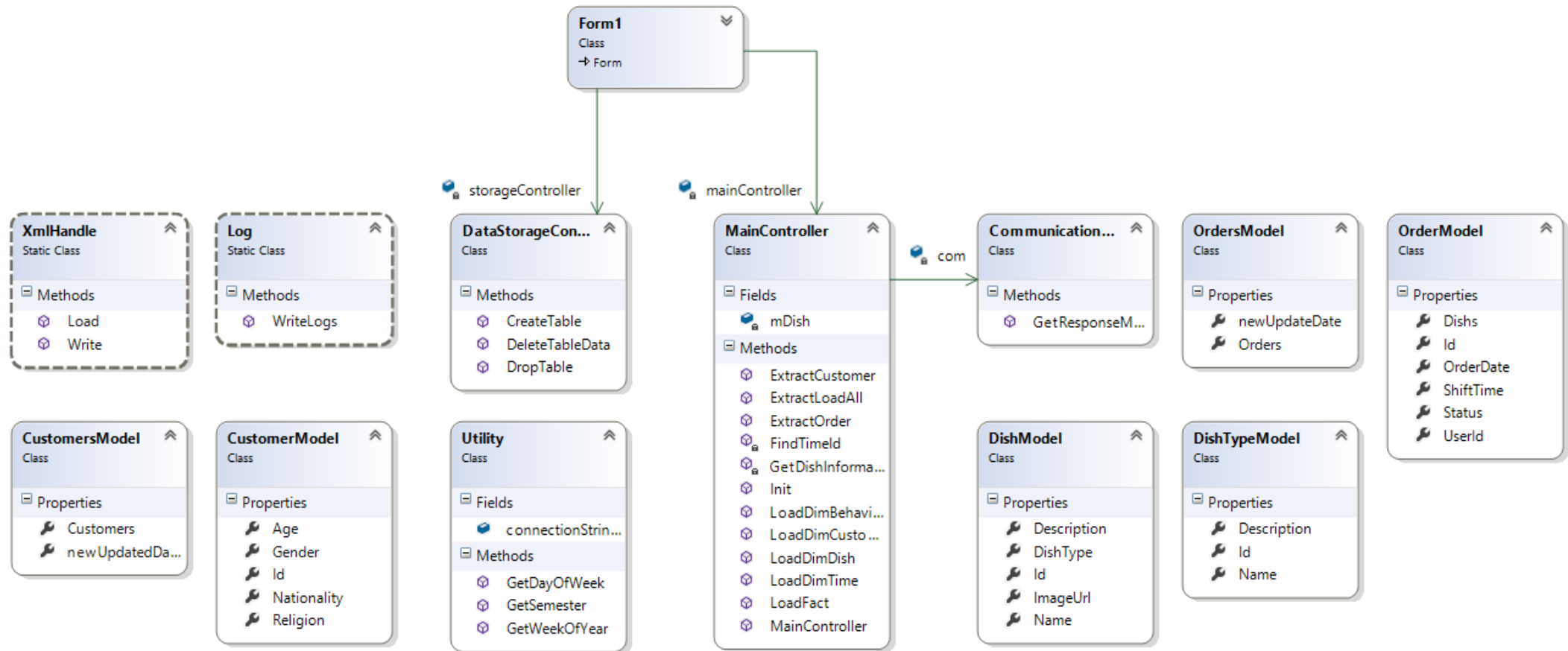
# DATA WAREHOUSE

- Data storage – Logical design



# DATA WAREHOUSE

- ETL Implementation



# DATA WAREHOUSE

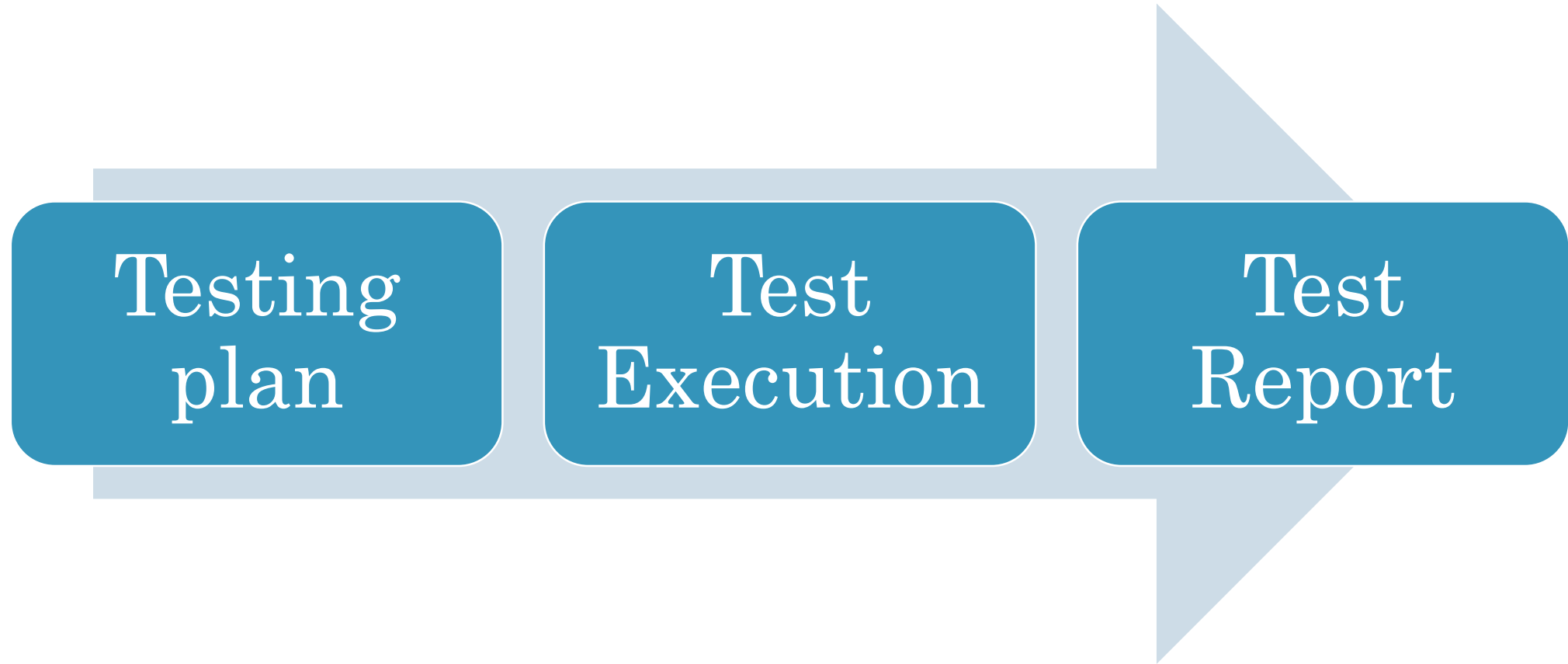
- Result after running Microsoft Association Algorithm

Pr...	Importance	Rule
1.000	1.337	Mực chiên = Existing, Bò xào ớt = Existing, Customer Id = 1 -> Cá rán = Existing
1.000	1.337	Bò xào ớt = Existing, Customer Id = 1 -> Cá rán = Existing
1.000	1.337	Mực chiên = Existing, Customer Id = 1 -> Cá rán = Existing
1.000	1.301	Bánh bao hấp = Existing, Rau muống luộc = Existing, Canh khoai tây = Existing, Bò xào ớt = Existing -> Customer Id = 2
1.000	1.301	Customer Id = 2, Rau muống luộc = Existing, Rau củ luộc = Existing -> Bánh bao hấp = Existing
1.000	1.301	Customer Id = 2, Rau củ luộc = Existing, Canh khoai tây = Existing, Mực chiên = Existing -> Bánh bao hấp = Existing
1.000	1.301	Customer Id = 2, Canh khoai tây = Existing -> Bánh bao hấp = Existing
1.000	1.301	Customer Id = 2, Rau muống luộc = Existing, Canh muống tôm khô = Existing, Mực chiên = Existing, Bò xào ớt = Existing -> Bánh bao hấp = Existing
1.000	1.301	Bánh bao hấp = Existing, Rau củ luộc = Existing -> Customer Id = 2
1.000	1.301	Customer Id = 2, Rau củ luộc = Existing, Canh muống tôm khô = Existing, Canh khoai tây = Existing, Bò xào ớt = Existing -> Bánh bao hấp = Existing
1.000	1.301	Customer Id = 2, Canh muống tôm khô = Existing, Mực chiên = Existing -> Bánh bao hấp = Existing
1.000	1.301	Customer Id = 2, Canh muống tôm khô = Existing, Bò xào ớt = Existing -> Bánh bao hấp = Existing
1.000	1.301	Bánh bao hấp = Existing, Rau muống luộc = Existing, Canh khoai tây = Existing, Mực chiên = Existing, Bò xào ớt = Existing -> Customer Id = 2
1.000	1.301	Bánh bao hấp = Existing, Rau củ luộc = Existing, Canh muống tôm khô = Existing -> Customer Id = 2
1.000	1.301	Customer Id = 2, Rau muống luộc = Existing, Rau củ luộc = Existing, Canh muống tôm khô = Existing -> Bánh bao hấp = Existing
1.000	1.301	Bánh bao hấp = Existing, Rau củ luộc = Existing, Canh muống tôm khô = Existing, Canh khoai tây = Existing, Bò xào ớt = Existing -> Customer Id = 2
1.000	1.301	Customer Id = 2, Rau củ luộc = Existing, Bò xào ớt = Existing -> Bánh bao hấp = Existing
1.000	1.301	Bánh bao hấp = Existing, Canh muống tôm khô = Existing, Canh khoai tây = Existing -> Customer Id = 2
1.000	1.301	Bánh bao hấp = Existing, Rau muống luộc = Existing, Canh khoai tây = Existing, Mực chiên = Existing -> Customer Id = 2
1.000	1.301	Bánh bao hấp = Existing, Rau củ luộc = Existing, Rau củ luộc = Existing, Canh muống tôm khô = Existing -> Customer Id = 2
1.000	1.301	Bánh bao hấp = Existing, Rau muống luộc = Existing, Canh muống tôm khô = Existing, Canh khoai tây = Existing, Bò xào ớt = Existing -> Customer Id = 2
1.000	1.301	Customer Id = 2, Rau muống luộc = Existing, Canh muống tôm khô = Existing, Canh khoai tây = Existing, Mực chiên = Existing -> Bánh bao hấp = Existing
1.000	1.301	Bánh bao hấp = Existing, Rau củ luộc = Existing, Canh khoai tây = Existing, Mực chiên = Existing, Bò xào ớt = Existing -> Customer Id = 2
1.000	1.301	Bánh bao hấp = Existing, Rau củ luộc = Existing, Mực chiên = Existing, Bò xào ớt = Existing -> Customer Id = 2
1.000	1.301	Customer Id = 2, Rau muống luộc = Existing, Rau củ luộc = Existing, Canh khoai tây = Existing, Bò xào ớt = Existing -> Bánh bao hấp = Existing
1.000	1.301	Bánh bao hấp = Existing, Rau muống luộc = Existing, Canh muống tôm khô = Existing -> Customer Id = 2
1.000	1.301	Bánh bao hấp = Existing, Canh khoai tây = Existing -> Customer Id = 2

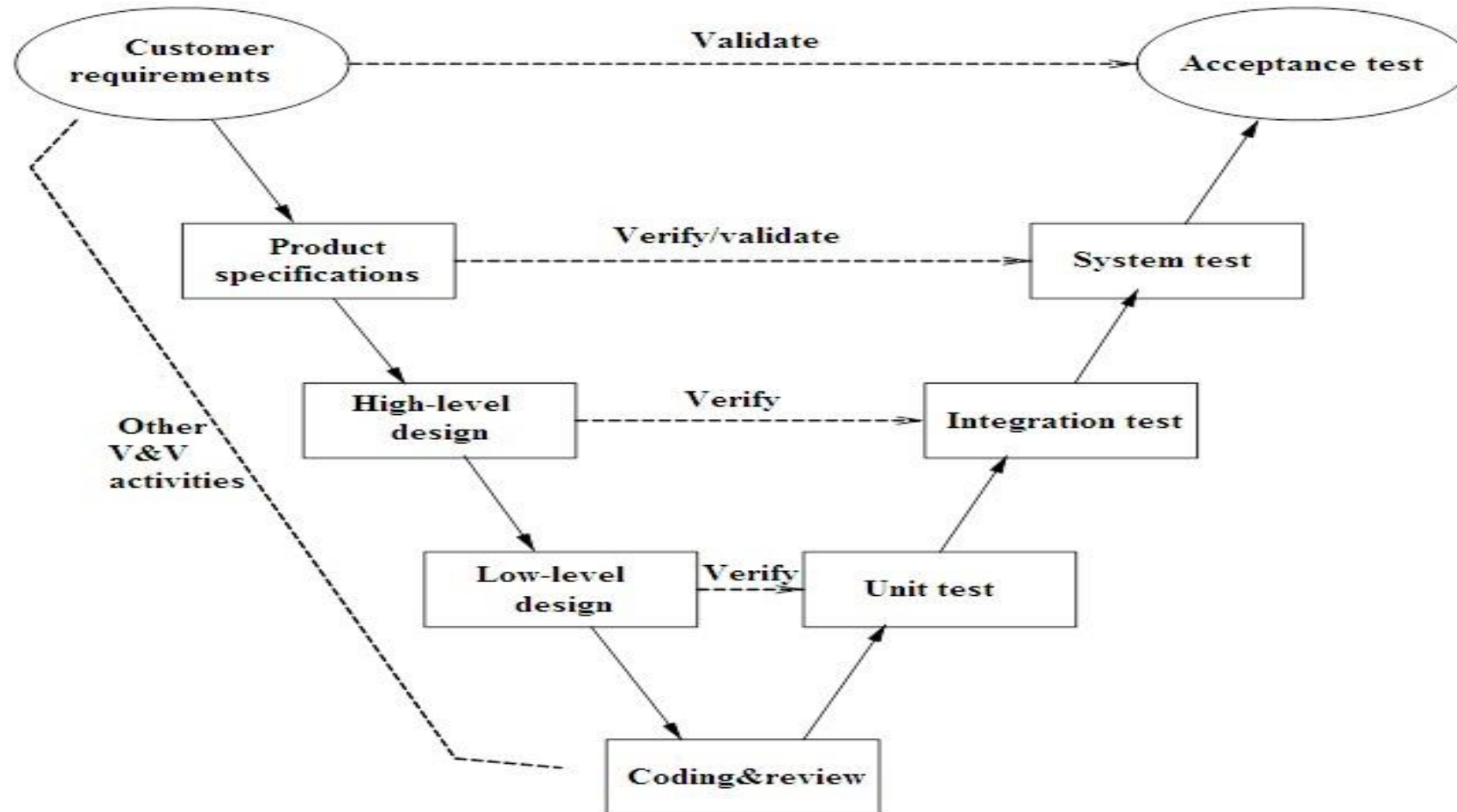
Rules: 1032



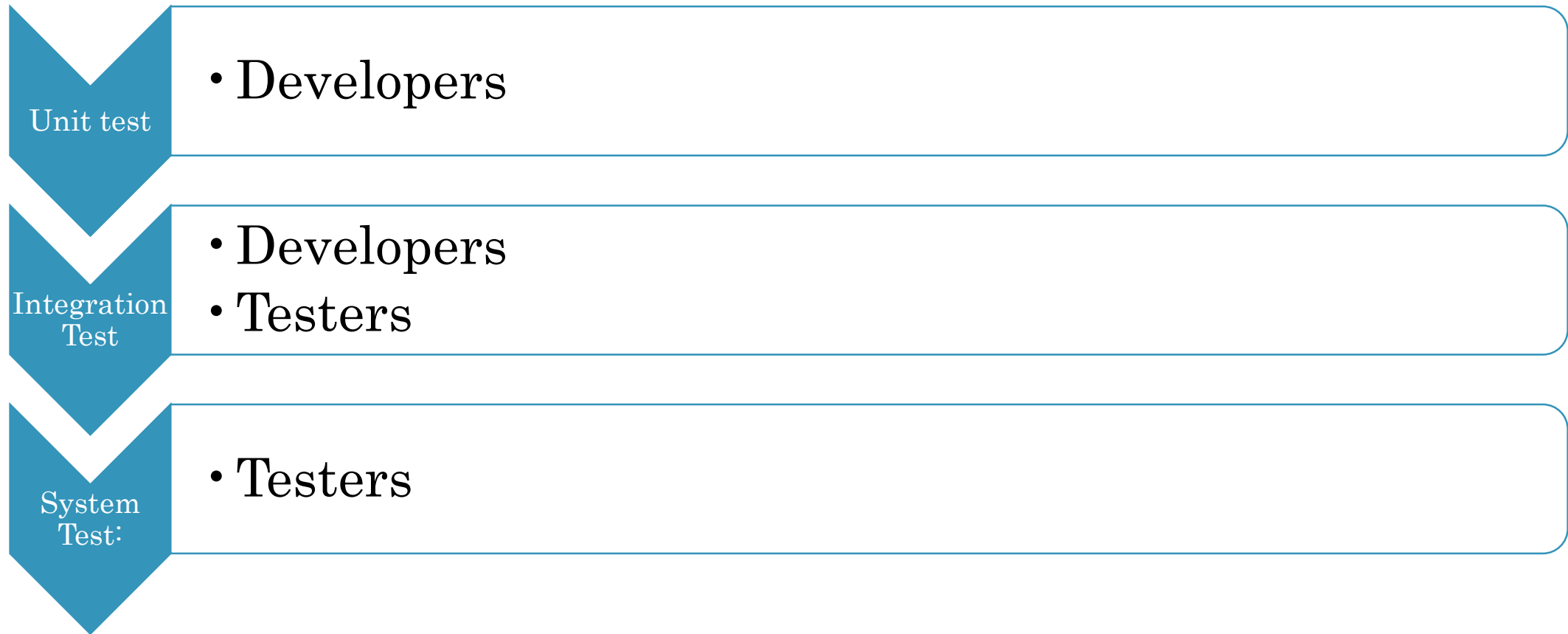
# TESTING



# TESTING MODEL

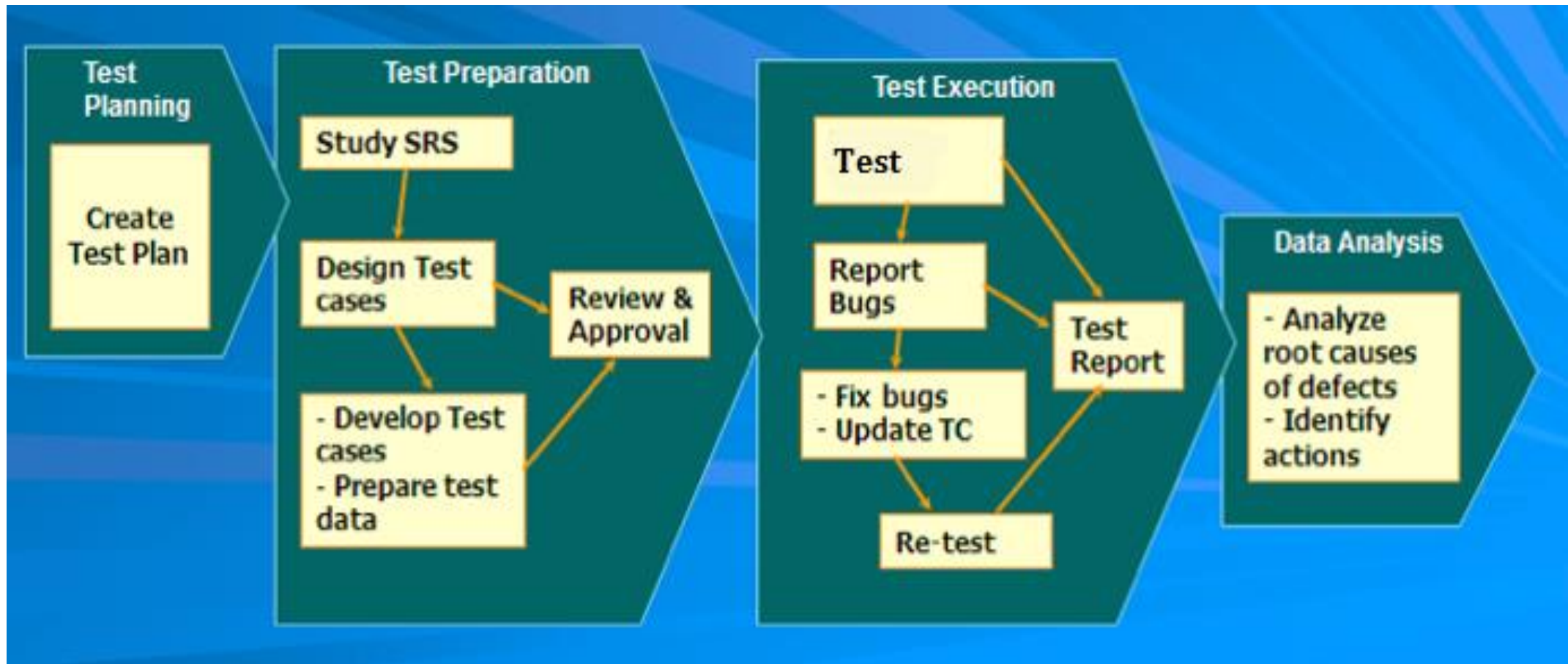


# TEST TYPE





# TEST PROCESS



# TESTING TOOLS

	Tools	Version	Source
Test Report	Microsoft Word Office	2013	Microsoft
Test Plan	Microsoft Word Office	2013	Microsoft
Test Case	Microsoft Excel	2013	Microsoft
Test Result	Microsoft Excel	2013	Microsoft
Unit test	Microsoft Visual Studio	Ultimate 2012	Microsoft
	PHPUnit	4.2	Sebastian Bergmann



# TESTING DEVICES

	Device Name	OS version	Manufacturer
Android Smart Phone	Samsung LTE	Android 4.1.3	Samsung
	LG Optimus LTE2	Android 4.1.2	LG
	Samsung Galaxy Young GT-S5360	Android 2.3.6	Samsung
	Sony Xperia Z2	Android 4.4.2	Sony
Barcode Reader	Honey Xenon 1900		Honeywell Inc.
Client Computer	Sony VAIO E 15"	Window 8 Pro 64 bit	Sony
	HP Compaq CQ42 13,3"	Window 8 Pro 32 bit	HP
	Acer E machine 14"	Window 7 Pro 32 bit	Acer
	Dell Alienware M17 r5 17,7"	Window 8 Pro 64 bit	Dell



# TEST CASE

Test Case ID	Test Summary	Test Steps	Test Data	Expected Result	Test Date 1	Test Result 1	Test Date 2	Test Result 2	Notes
KC-01	Check get information from server functional (with internet access)	1. Enable internet connection 2. Open Kitchen control application		Main form will be displayed	23/07/2014	OK	30/07/2014	OK	
KC-02	Check get information from server functional (without internet access)	1. Disable internet connection 2. Open Kitchen control application		An message box about internet connection will be displayed	23/07/2014	OK	30/07/2014	OK	
KC-03	Check automatic shedule functional(at start time)	1. Change computer time to start time 2. Open Kitchen control application 3. Enter test barcode	Start time: 10h30 am or 16h30 pm Test barcode: "SE02069"	Main form must be displayed. After enter barcode, orders will be displayed at dataGridView	23/07/2014	OK	30/07/2014	OK	
KC-04	Check automatic shedule functional(before start time)	1. Change computer time to start time 2. Open Kitchen control application 3. Change computer time to end time or later 4. Enter test barcode	Start time: 10h30 am End time: 13h00 pm Test barcode: "SE02069"	Order information will be displayed: - Priority = 1. - Dishes = "Cá rán", "Rau muống luộc", "Thịt bò xào". - Notes = "Thêm cơm"	23/07/2014	OK	30/07/2014	OK	
KC-05	Check automatic schedule functional (before start time)	1. Change computer time before start time 2. Open Kitchen control application	Start time: 10h30am or 16h30 pm	Order with priority = 1 will be removed. Orther orders will be automatically reduced their priority by one	23/07/2014	OK	30/07/2014	OK	
KC-06	Check barcode scan functional (with valid test access code)	1. Open Kitchen control application 2. Using barcode reader or manually enter access code	Valid test barcode: "SE02069"	Order information will be converted to JSON format and send to server	23/07/2014	OK	30/07/2014	OK	



# DEFECT LOG

1	1. Input Correct Email and Password 2. Click Remember me check box 3. Click Sign Up button 4 . Log Out	Remember me checkbox doesn't work .	Email and Pass word saved to cookies . In next Login , email and Pass will be show	22/07/2014	LINHBTT	TienND	30/07/2014	MED	MED	CLOSED
2	1. Access to LTD4 App in Android smart phone	Doesn't have Remember me feature in Login form Android	Have Remember me feature	22/07/2014	LINHBTT	TuanN	30/07/2014	MED	MED	CLOSED
3	1. Input text to search box to search dish	Can't search dish or food in search feature .	User can search dish by search box	1/8/2014	LINHBTT	TienND	4/8/2014	MED	MED	CLOSED
4	1. Access to LTD4 App in Galaxy Young 2,5inch 2. Login 3. Click Barcode to get barcode 4. Scan BarCode by Barcode reader	Error when display barcode in 2.5" Android Smart Phone	Barcode reader can scan barcode of user	23/07/2014	LINHBTT	DuongND	27/07/2014	MED	MED	CLOSED

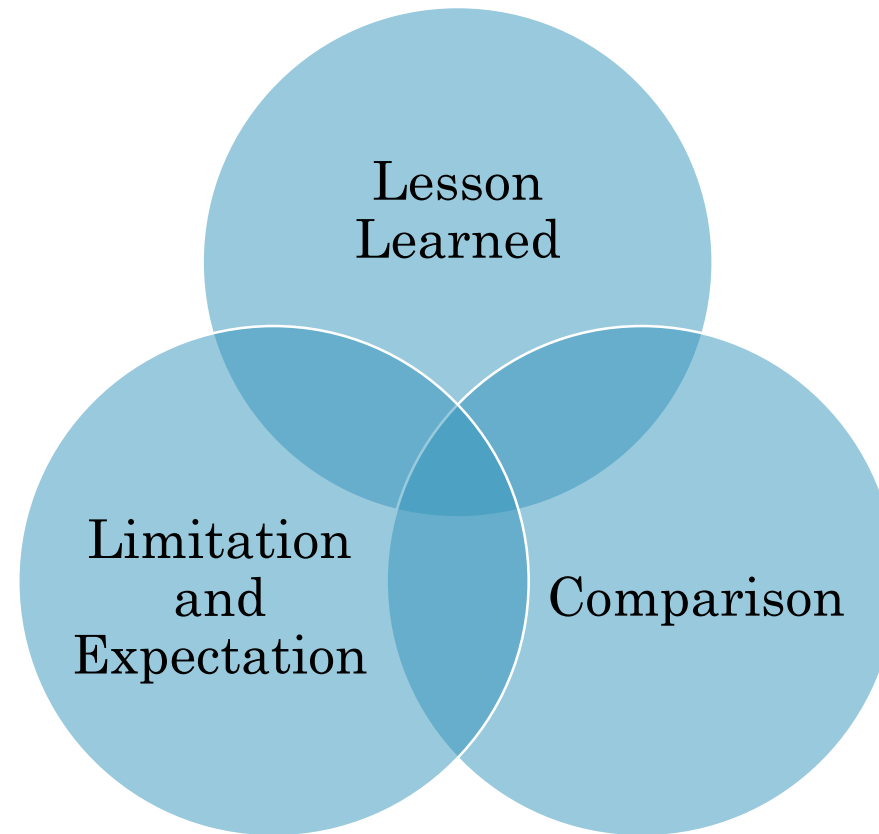


# TEST REPORT

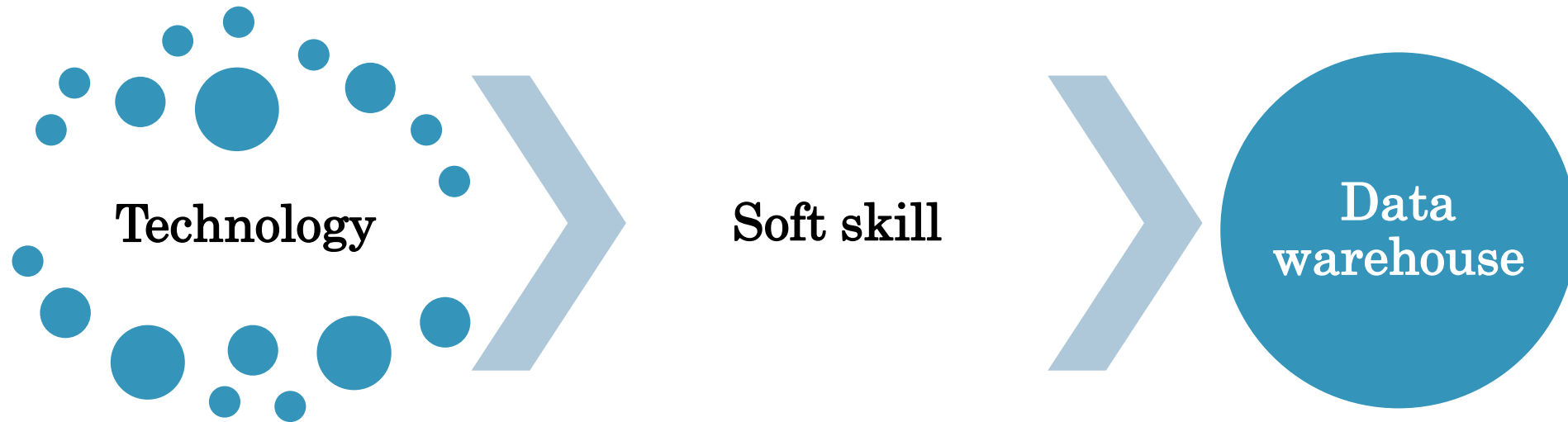
	Module	Pass	Fail	Untested	Test Case	Time
Phase 3	Round 1	230	30	0	260	12/07 -> 16/07
	Round 2	320	15	0	335	17/07 -> 20/07
	Round 3	300	15	0	340	22/07 -> 28/07
	Round 4	100	7	0	110	30/07 -> 08/08
Phase 4	Round 5	150	5	0	157	09/08 -> 19/08



# PROJECT RESULT



# LESSON LEARNED



New framework:

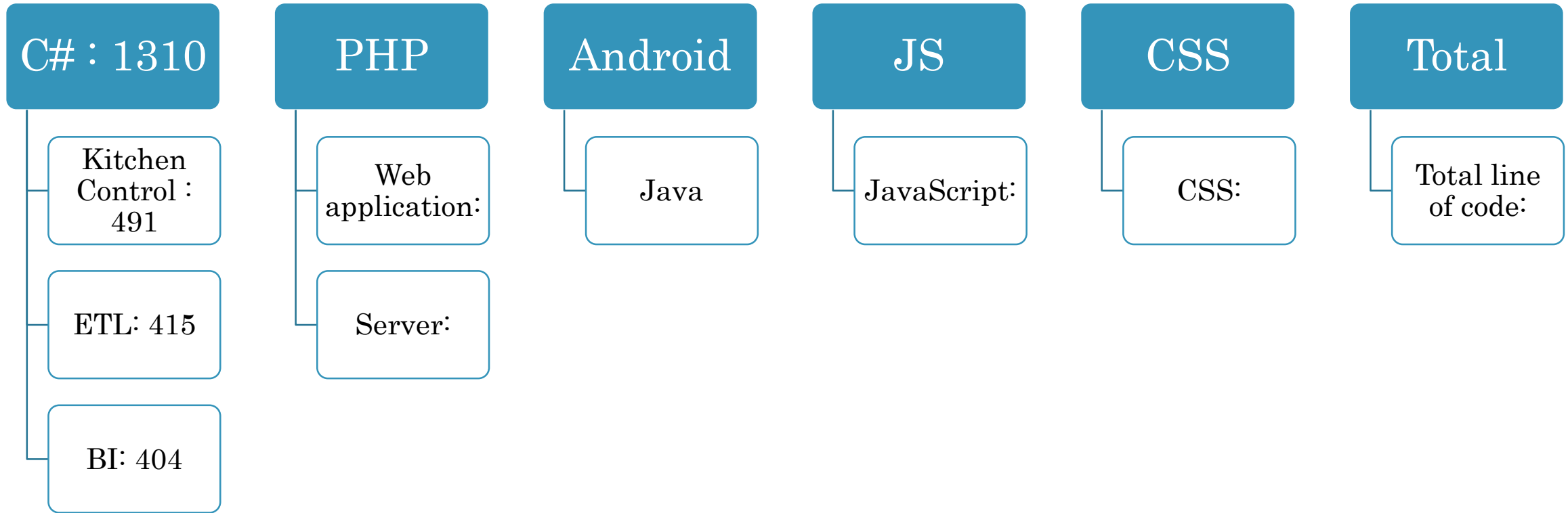
- CodeIgnite
- Phalcon

- Leadership
- Teamwork





# LINE OF CODE



# COMPARISON

Main objective		
Purpose		
	Plan	Actual
Release date	19/8/2014	20/8/2014
Release version	1.0	1.0
Days	137	138
Test case	500	620
Defect	50	
Document pages	200	
Lines of code	25000	



# LIMITATION AND EXPECTATION

## Limitation

- Rate dishes functional is not completely implemented

## Expectation

- Develop application for iOS and Window Phone.
- Expand to many schools, colleges and universities



# DEMO



Q&A



THANK YOU!

