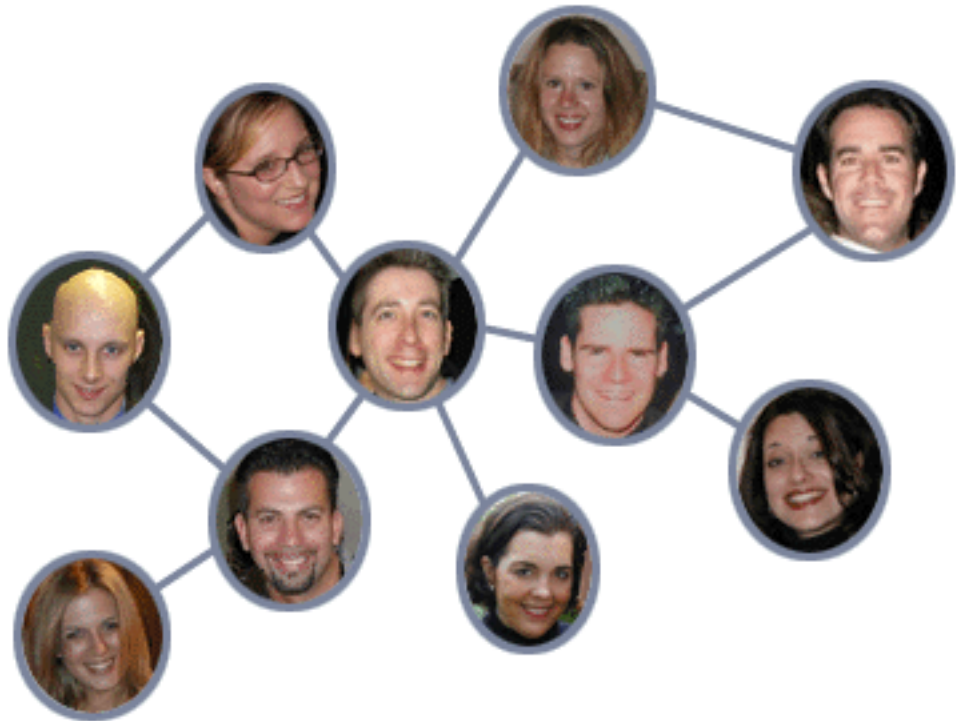# Chapalang!

Chapalang! is a social utility that connects people with friends and new friends by offering a place for exchanging ideas and information on its public domain.

WHAT IS CHAPALANG?

Connects people

Real identity

Discussion platform

Benefits of real identity community

Encourages responsible activities and behavior

Opportunities to develop online persona

Benefits of real identity community

Relevant User Data

Network of Relationships

WHAT IS CHAPALANG?

Online marketplace

Advertising

Team Roles

ALOYSIUS LAU
PROJECT MANAGER

HOUSTON TOH
LEAD ARCHITECT

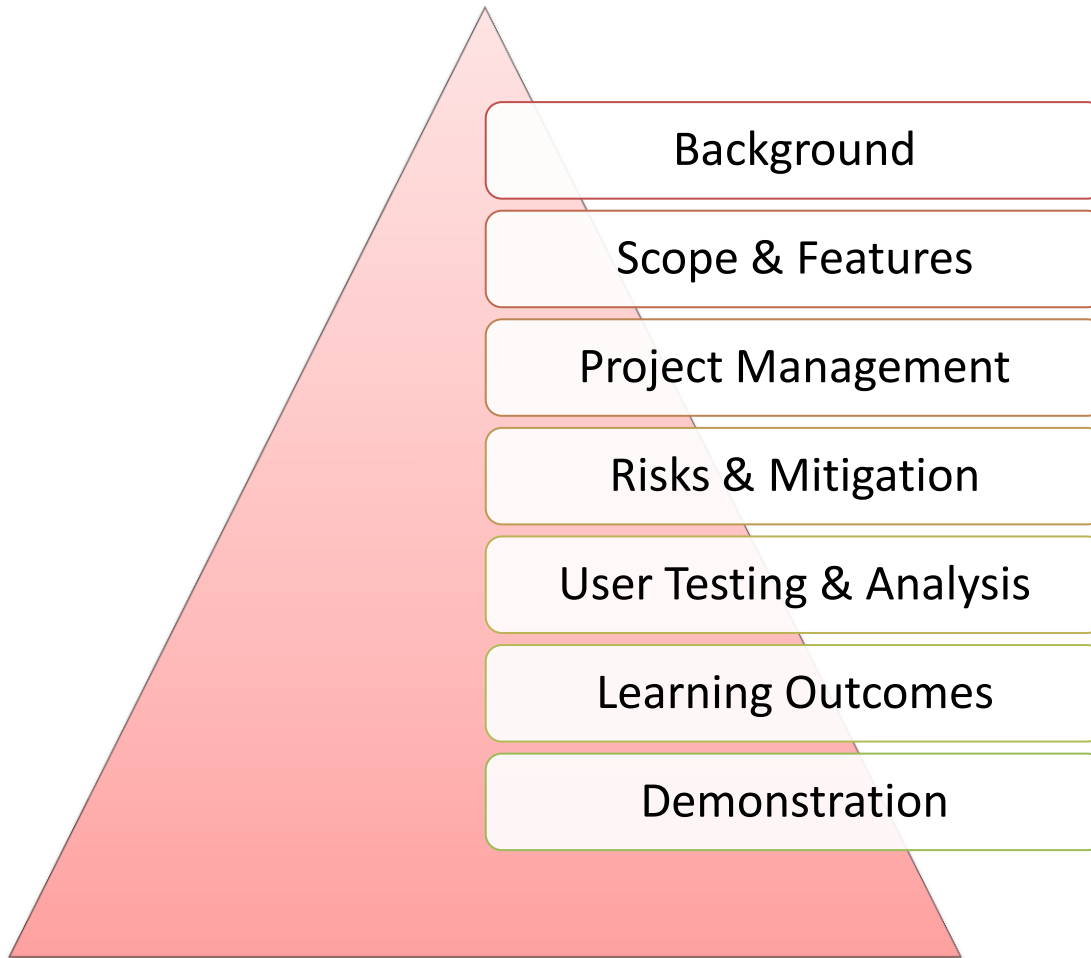CHING GEK SENG
LEAD DEVELOPER

ONG HUI LING
QA SPECIALIST

CHEN TIANXIANG
UE DEVELOPER

KENNETH LIONG
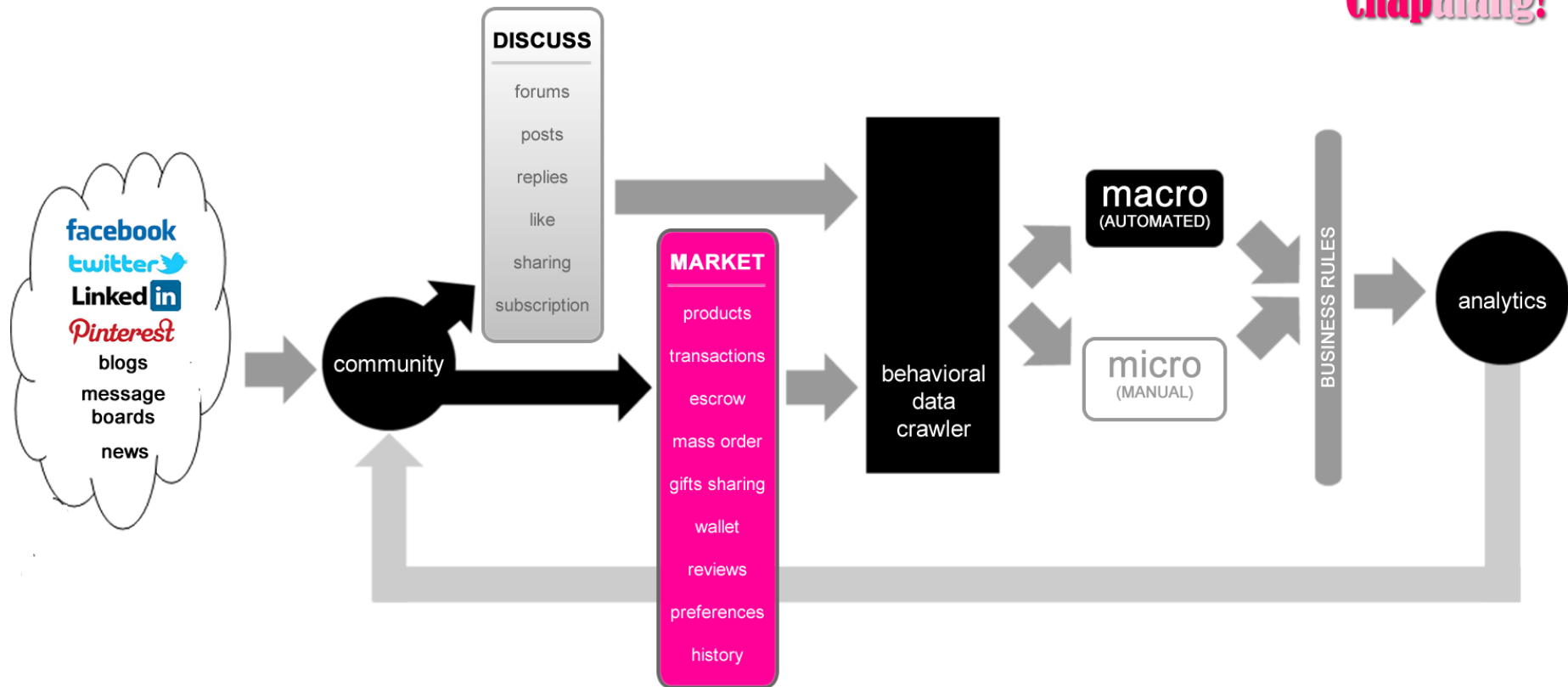SYSTEM DEVELOPER

Agenda of Presentation

Background

Scope & Features

Project Management

Risks & Mitigation

User Testing & Analysis

Learning Outcomes

Demonstration

Available Platforms

Discussion Platforms

Available Platforms

Marketplace Platforms

Proposed Solution

Scope

MARKET
- products
- transactions
- escrow
- mass order
- gifts sharing
- wallet
- reviews
- preferences
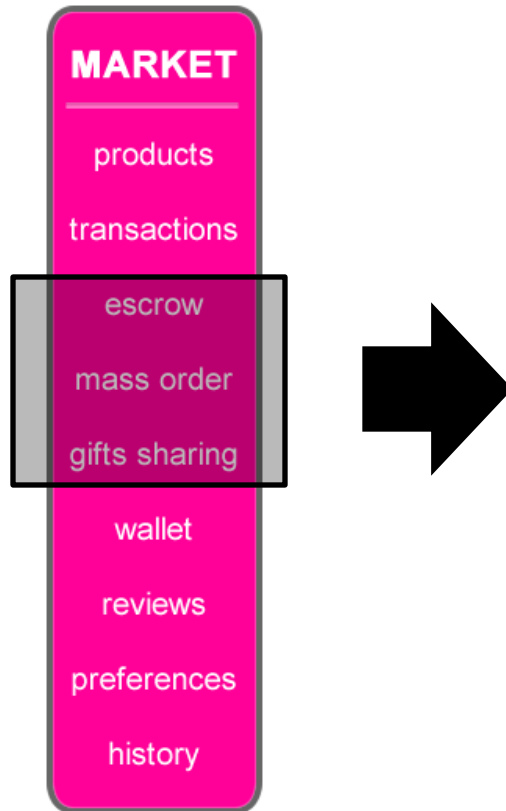- history

- **Escrow Service**

  Offers order-to-fulfillment assurance where payment from buyer is first paid to Chapalang, and released to seller only after 30 days or when buyer confirms receipt of item

- **Mass Order**

  Organizes a group purchase, forming the minimum numbers required for bulk purchase of an item at a lower price

- **Gift Sharing**

  Enables multiple friends to share the costs of a gift for a birthday boy/girl, especially useful when gift is selected from his/her wish list

X-Factor

Commercial service

Instead of a prototype or proof-of-concept, project is especially delicate to take care of usability, heuristic, real-world service and sustainability

Real users environment

Increased complexity of development progress, serving real user experience, system reliability, rollback recovery and data integrity and privacy

Project Resources

Development Environment: NetBeans
Test Browser: Chrome, Firefox
SDK & Language: PHP, Paypal SDK, Facebook SDK
Libraries & APIs: jQuery, CodeIgniter
Deployment: WAMP, LAMP
Database: MySQL
Project Management: MS Office, Google Docs, Dropbox, SVN
Graphics: Fireworks

Management Challenges

Integrating external APIs

Instructions may be too technical, lack of additional support, many hidden rules on integration

Management Challenges

Aligning business and system objectives

"This is a cool feature, but how much value will it give us?"

"This is a valuable design, but it takes up too much time!"

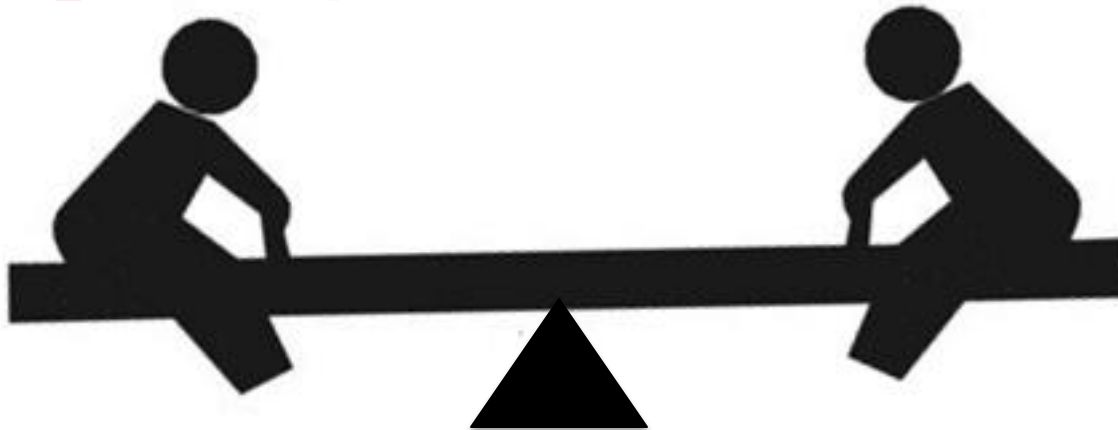Discussion Forum

Picture Consolidation

Management Challenges

Finding the right balance

Between features that are essential for Chapalang and features to be graded for IS480

Technical Challenges

Users will have pictures of different dimensions!

Technical Challenges

The need to dynamically crop and resize uploaded images

90 x 60

480 x 720

400 x 400

Technical Challenges

- Crawling of content and images of a URL

- Multiple URI patterns

- Crawling images is the main challenge due to the paths that the websites used

Technical Challenges

- PayPal lacks API documentation

- Had to learn from PayPal developer forums and blogs

Technical Challenges

Payment Details Type Fields

When implementing parallel payments, you can create up to 10 sets of payment details type parameter fields, each representing one payment you are hosting on your marketplace.

PAYMENTREQUEST_n_TRANSACTIONID TRANSACTIONID *(deprecated)*	Transaction identification number of the transaction that was created.You can specify up to 10 payments, where n is a digit between 0 and 9, inclusive. NOTE: This field is only returned after a successful transaction for DoExpressCheckout has occurred. TRANSACTIONID is deprecated since version 63.0. Use PAYMENTREQUEST_0_TRANSACTIONID instead.

Payment Request Info Type Fields

Field	Description
PAYMENTREQUEST_n_TRANSACTIONID	Transaction ID for up to 10 parallel payment requests. You can specify up to 10 payments, where n is a digit between 0 and 9, inclusive. This field is available since version 64.0.
PAYMENTREQUEST_n_PAYMENTREQUESTID	Payment request ID. You can specify up to 10 payments, where n is a digit between 0 and 9, inclusive. This field is available since version 64.0.

Technical Challenges

Dynamic Images' Dimensions
- UI requires different image dimensions and
- Can't expect users to upload different dimension of the product images
- Need to learn how to manipulate images programmatically
- Need a dynamic algorithm to centralised and crop the original images

HTML parser
- needed to crawl content and images of a URL
- need to cater to multiple URI patterns
- crawling images is the main challenge due to the paths that the websites used
--- relative path
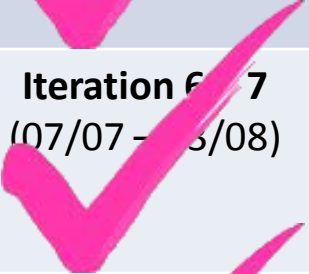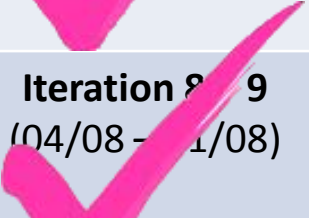--- full path
--- deep re-direction paths
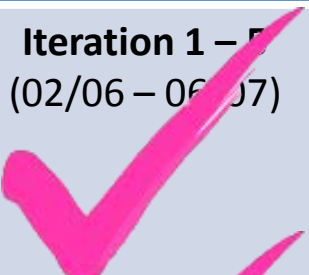
PayPal Integration
- PayPal lacks API documentation
--- Do not know exactly how the payment process is programmatically
--- Do not know how to capture the transaction ID of a payment
- Learn from PayPal developer forums and blogs to find out how to do integrate
- Read PHP and Javascript codes to understand how the payment process flows
- Trial and error to capture transaction ID

Major Milestones

| Milestone	Date	Remarks
~~User Test 1~~	~~August 04, 2012~~	~~Completion of discussion board~~
~~Acceptance Presentation~~	**~~August 14, 2012~~**	**~~Completion of basic e-commerce~~**
~~User Test 2~~	~~September 3, 2012~~	~~Completion of escrow~~
Mid-Term Presentation	**October 3, 2012**	**Completion of gift sharing**
User Acceptance Test	November 3, 2012	Completion of mass order
Final Presentation	**December 3, 2012**	**Completion of any UAT changes**

Project Schedule

Iteration	Summary of Tasks
Iteration 1 – 5 (02/06 – 06/07)	• Develop new user interface template • Revamp mTiamo (existing product) with new interface • Redesign features (dropping moderator, same page display of all post's content, etc) • Facebook API integration
Iteration 6 – 7 (07/07 – 3/08)	• Implement support for sharing of multimedia on discussion boards • Building basic CRUD functions for marketplace • Research on Paypal integration • Develop tour-based testing interface for alpha test
Iteration 8 – 9 (04/08 – 1/08)	• Integration of Paypal API • Develop notifications function • Develop Escrow Service feature

Project Schedule

Iteration	Summary of Tasks
Iteration 10 – 11 (01/09 – 28/09)	• Develop Gifts Sharing feature •Implement transactions rating system
Iteration 12 – 13 (29/09 – 26/10)	• Develop Mass Order feature • Develop private message function
Iteration 14 – 15 (27/10 – 23/11)	• Improvise on post/product search function • Improvise on user interface aesthetics • Implement privacy, configuration and other settings
Iteration 16 (24/11 – 03/12)	• Amendments for UT feedback and changes • Buffer

Scope Prioritization Model
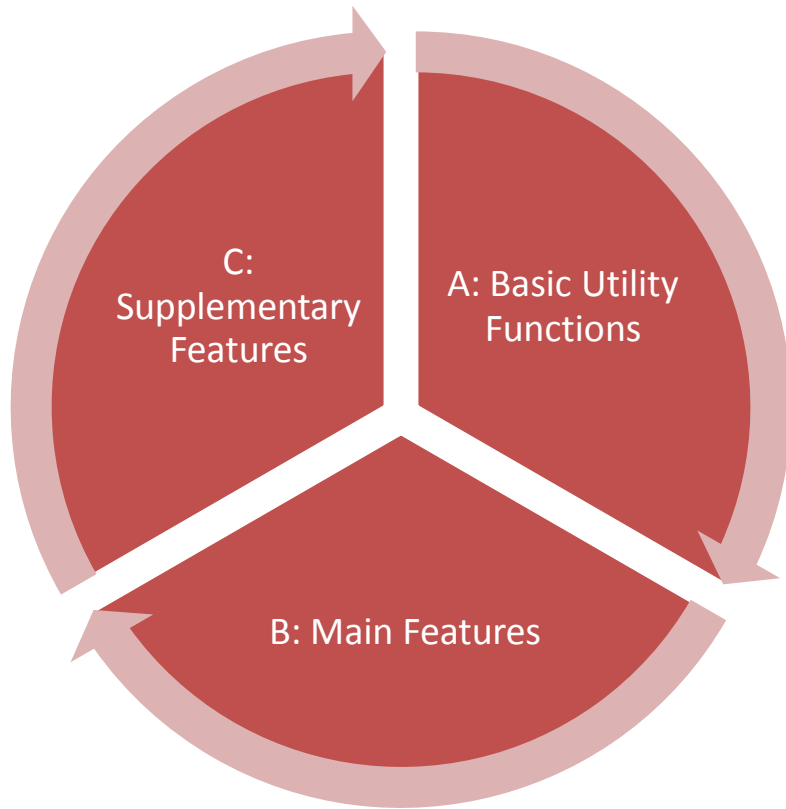
| No	PI	Function
1	A1	Payment gateway
2	A2	CRUD of message boards
3	A3	CRUD of marketplace
4	B1	Escrow service
5	B2	Gifts sharing
6	B3	Mass order
7	C1	Video hosting capabilities
8	C2	Intelligent search tool
9	C3	Advertising analytics

* Priority Index (PI)

Scope Prioritization Decision Table

Function / Criteria	Advertising Module	Polling Function	Private Message Module	Product Search Function
Time Required	1	2	2	3
Ease of Implementation	1	3	3	2
Combined Risk	2	2	2	3
Aligned with Business Strategy	3	1	3	3
Provide Competitive Advantage	3	1	2	2
Overall Benefit	67%	60%	80%	87%

Schedule Metric

$$\frac{\text{Planned no. of days taken (P)}}{\text{Actual no. of Days Assigned (A)}} \times 100\% =$$

> 100 → **DELAY**

100% → **ON-TIME**

< 100% → **AHEAD**

Metric (P/A)	Action
>= 150%	Review entire project schedule
>110% && <150%	Review if too much time given to tasks, readjust future similar tasks
>=90% && <110%	Maintain momentum
>50% && <90%	Continue development, review schedule of next iteration
<=50%	Stop development, review entire project schedule, inform client

Schedule Metric

Schedule Metric Value
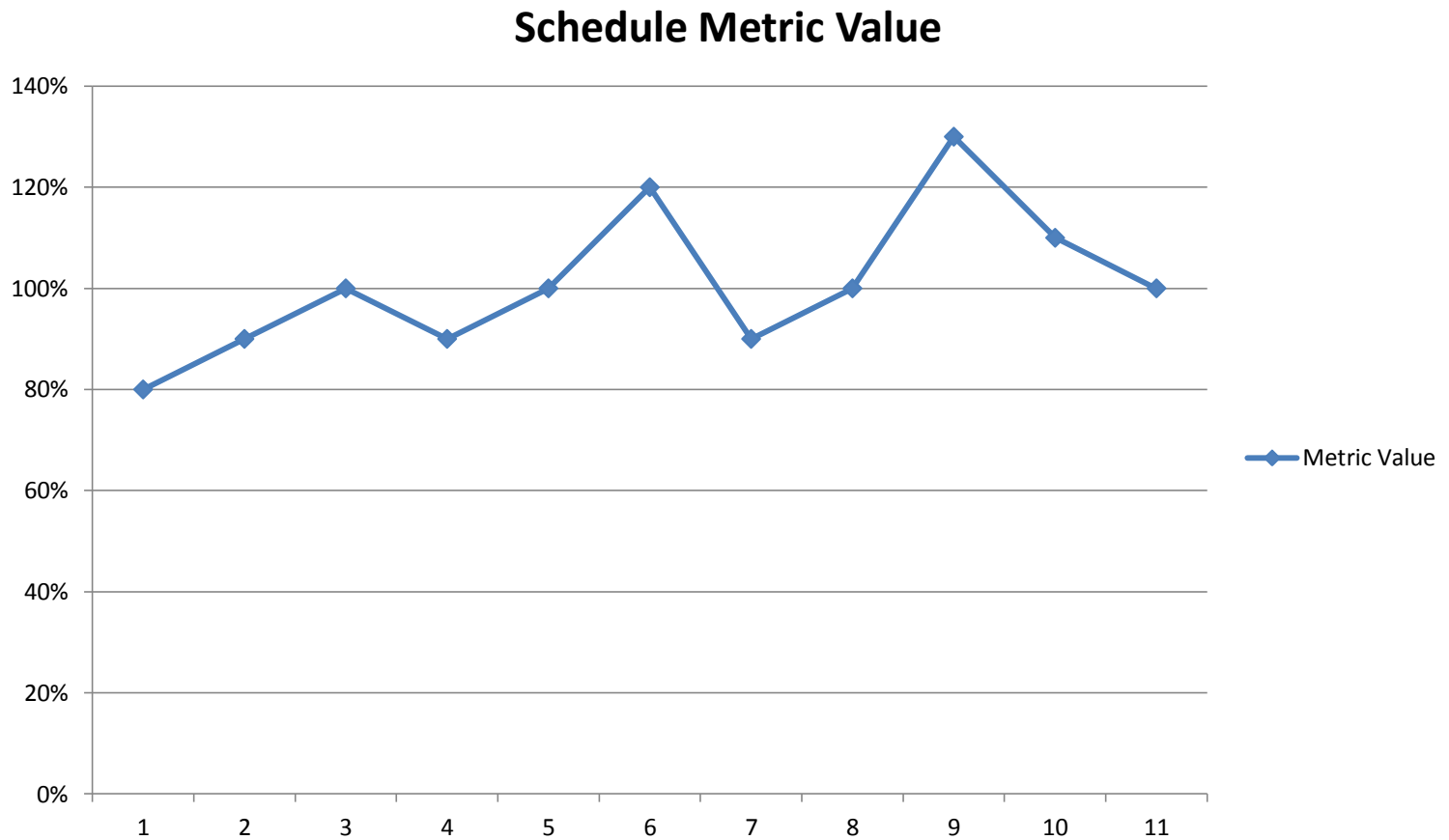
Bug Metric

Total Points for Each Iteration = Σ Points of the Bugs in each iteration

Points	Complexity of Bug	Description
1	Easy	Bug doesn't affect function Cosmetic error Error can be easily fixed
5	Moderate	Bug affects only its relevant function Unable to retrieve relevant function from database
10	Hard	Bug affects other functions Application unable to function properly

Bug Points	Action
<10	Fix the bugs during buffer days in current iterations
>=10	Stop development, fix bugs immediately, review if there are any changes to project schedule

Bugs Logging

Bug Metric

Bug Metric Value

Bug Metric

Risks & Mitigation

Risk	Description	Mitigation
Use of live web servers	• Errant codes may cause resource hogging or security related downtimes for sponsor. • Downtimes may also occur on shared server during key presentations.	• Establish proper testing on local machines before deployment • Fully working applications mirrored on localhost in case of downtime
Development of live commercial project	• Project is built from scratch, much time will be spent on building basic functions and may cannibalize development time for other value-added features resulting in risk of incompletion	• Establish agreement with sponsor that development is on "best-effort" basis • Additional scope accepted only if ahead of schedule • Good project management to be adopted, launching features on iterative basis to reduce risks

User Test 1 (03/09)
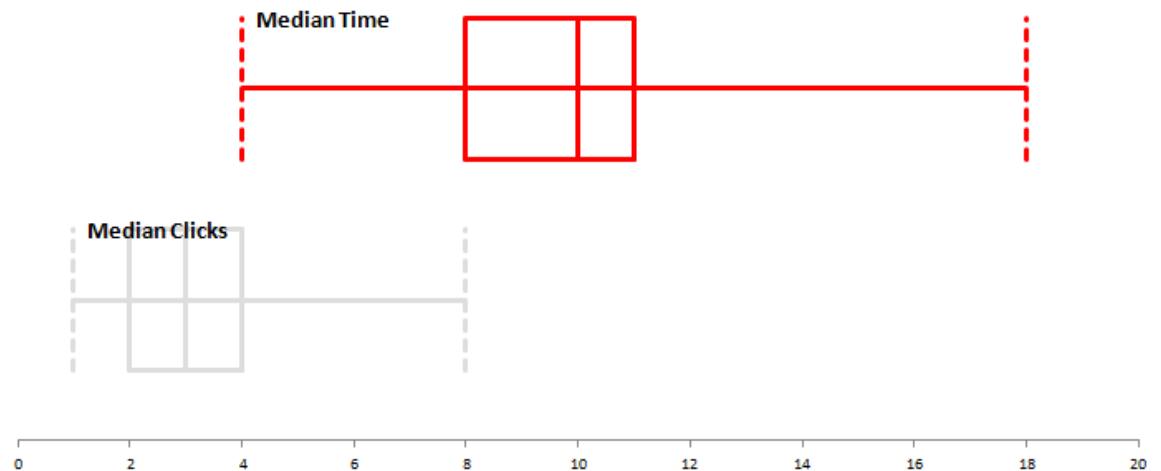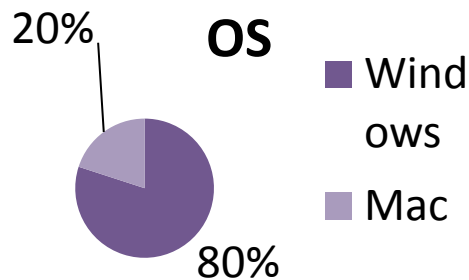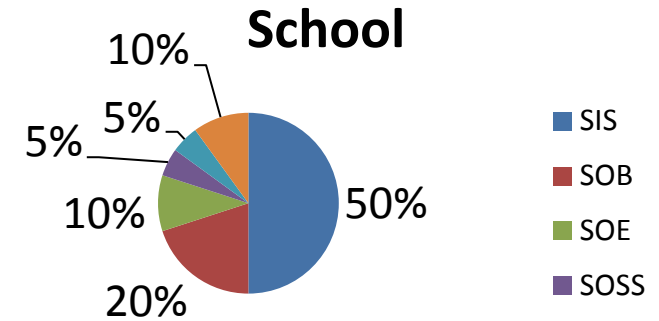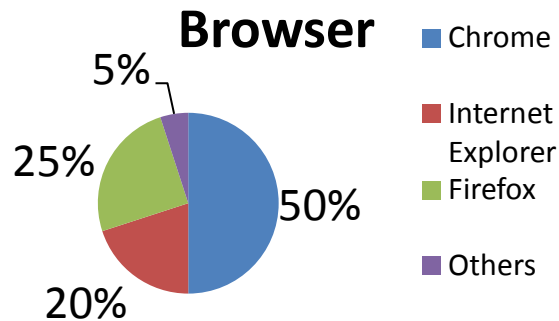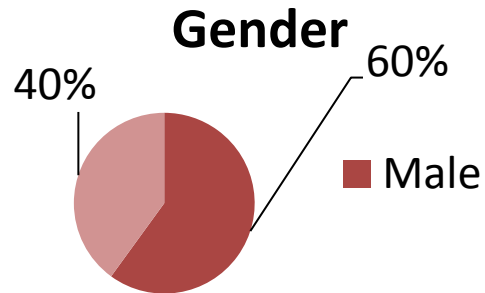
User Test 1 (03/09)

4

BUGS FOUND

- "Delete Post" function not working
- "Notifications" does not show consistently
- Uploading of pictures is buggy
- "Like" function works, but "Unlike" function does not work

19

RECOMMENDATIONS

- Tutorials should be provided for first-time users
- Tooltips should be provided for unclear input fields
- Allow users to link Chapalang account with other social media (G+, Twitter, Linkedin)
- Better after-action feedback

Chapalang! | Chapalang 2012 ©

User Test 2 (24/09 – 26/09)

Control Group (Group A)

Previous users from UT1
Test if their second experience with the system has any difference

Test Group (Group B)

New users for UT2
Test if new user experience is now improved

User Test 2 (24/09 – 26/09)

Gender
39%
61%
■ Male

Browser
■ Chrome
■ Internet Explorer
■ Firefox
■ Others
5%
25%
20%
50%

School
2% 2%
15%
81%
■ SIS
■ SOB
■ SOSS
■ SOA

OS
20%
80%
■ Windows
■ Mac

User Group
29 17
■ Group A
■ Group B
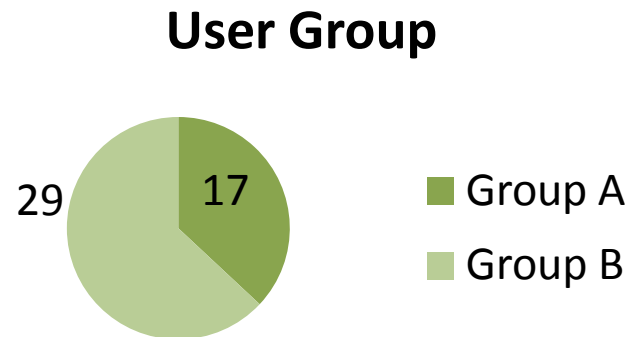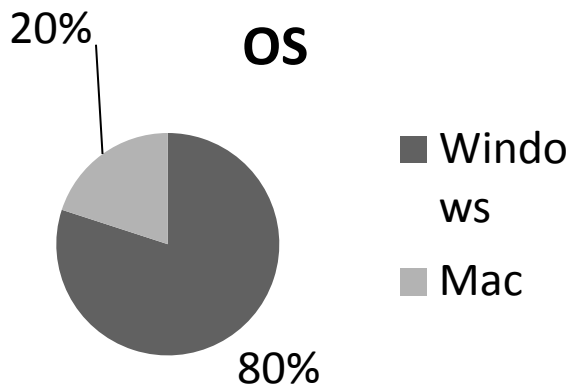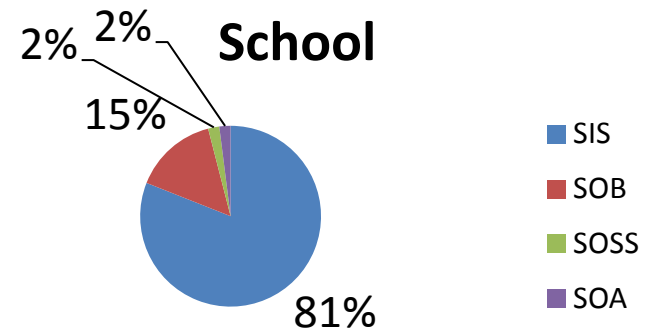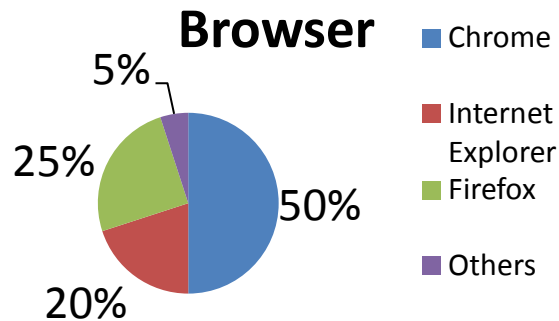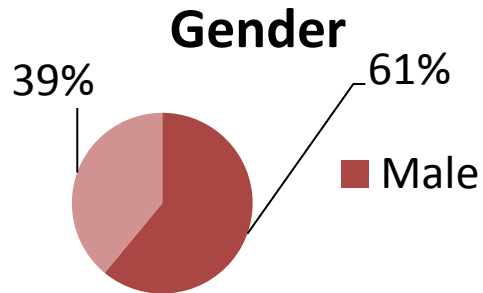
Median No. of Clicks
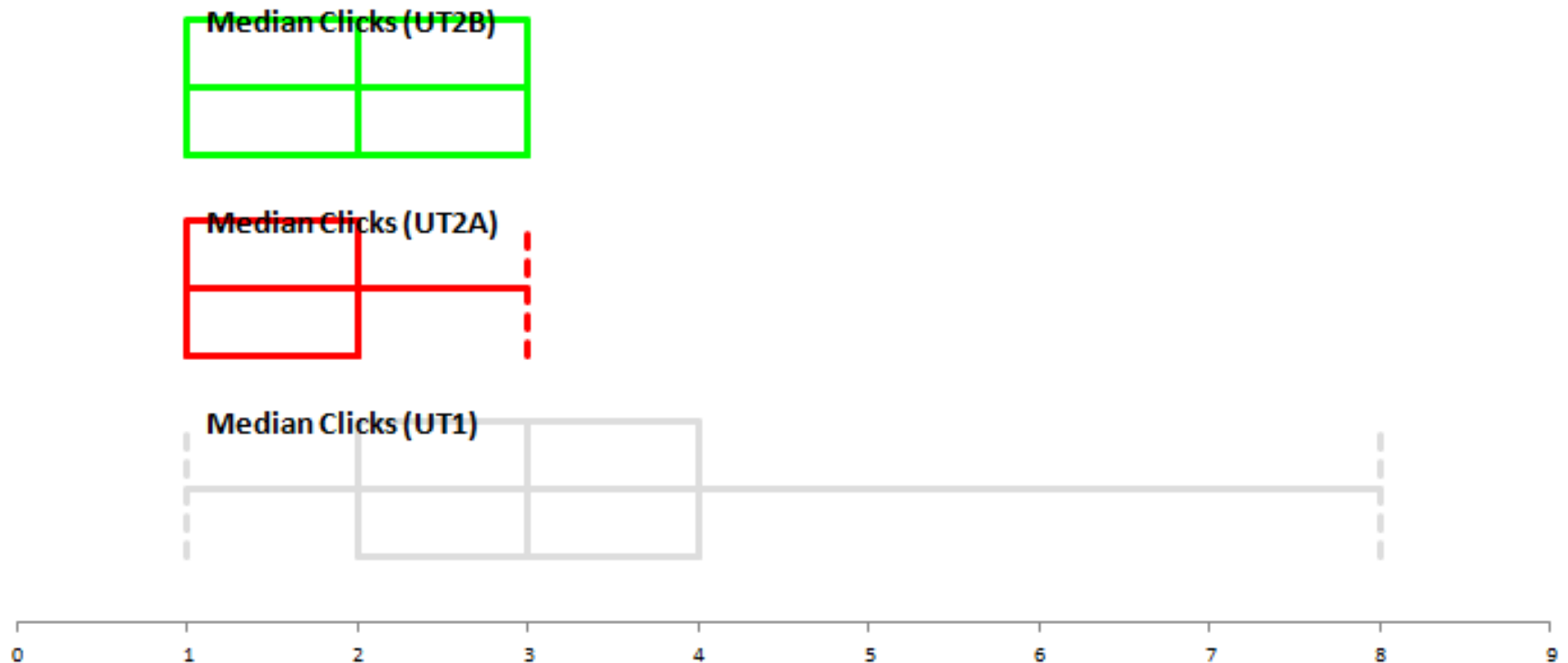
Median Time Spent
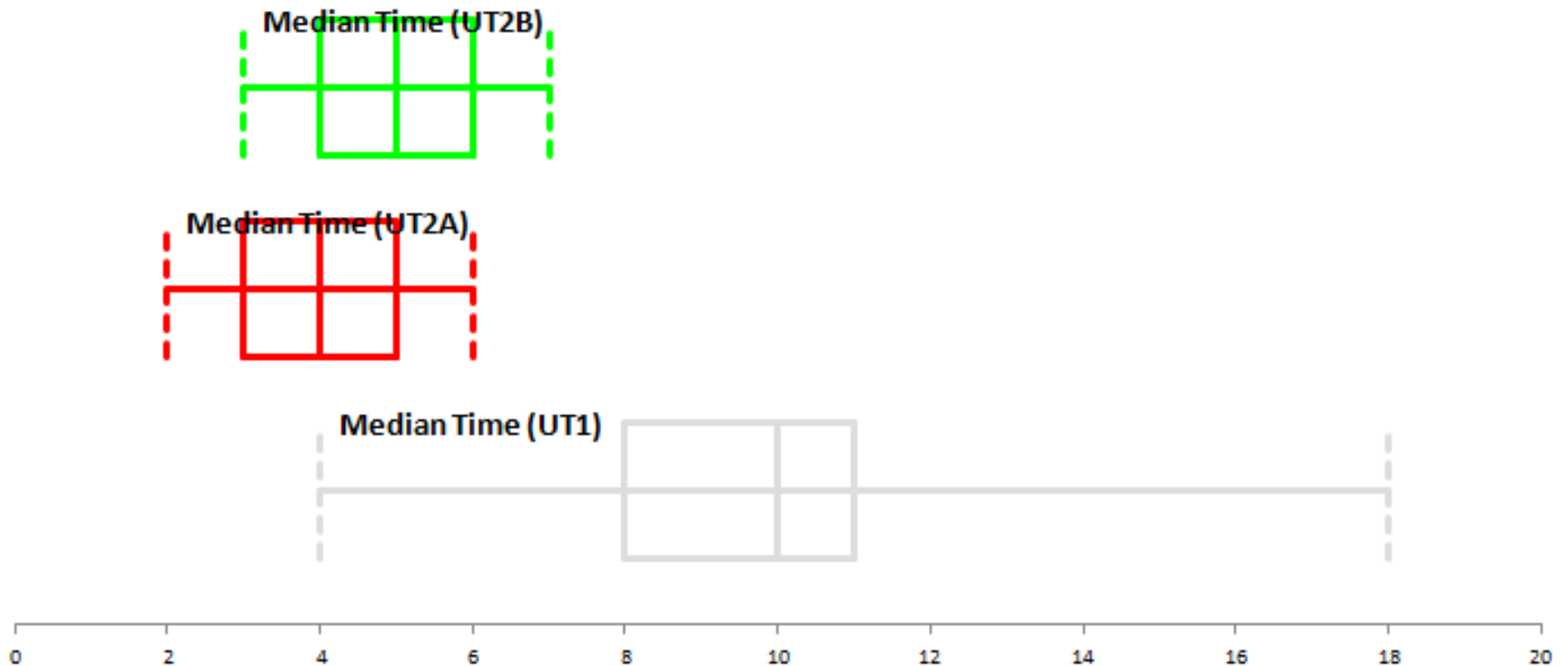
User Test 2 (24/09 – 26/09)

21

BUGS FOUND

- Unable to process payment of a product of pName has apostrophe '
- Discount value is displayed wrongly in the frontend, but correct in backend
- User is able to proceed with payment even when product quantity is 0
- Windows 8 + IE 10 = Unable to proceed for payment

69

RECOMMENDATIONS

- Display of final price and discounted price is confusing in some pages
- Implementing a "Back" button at checkout page, in case of any particulars changes
- iPad unable to make payments
- Sending of email whenever a purchase is confirmed or cancelled
- Forum subscription buttons should be placed on top, hence more visible

Learning Outcomes

- **Project management skills**

  Scope, risks, project integration, time management, and quality management

- **Communication skills**

  Technical presentation, team collaboration, external stakeholder liaising

- **Business IT value alignment linkage skills**

  Identifying business value, leveraging on IT to create business value, prioritizing value-added features

- **Learning to learn skills**

  Research skills, develop learning methodology, independent and team resolution of problems

Key Performance Indicators

16

REGISTERED SELLERS

7

REAL PRODUCTS

112

REGISTERED USERS

2

REAL TRANSACTIONS

49,278

USERS REACH

Team Reflections

Teamwork

User Testing

Demonstration

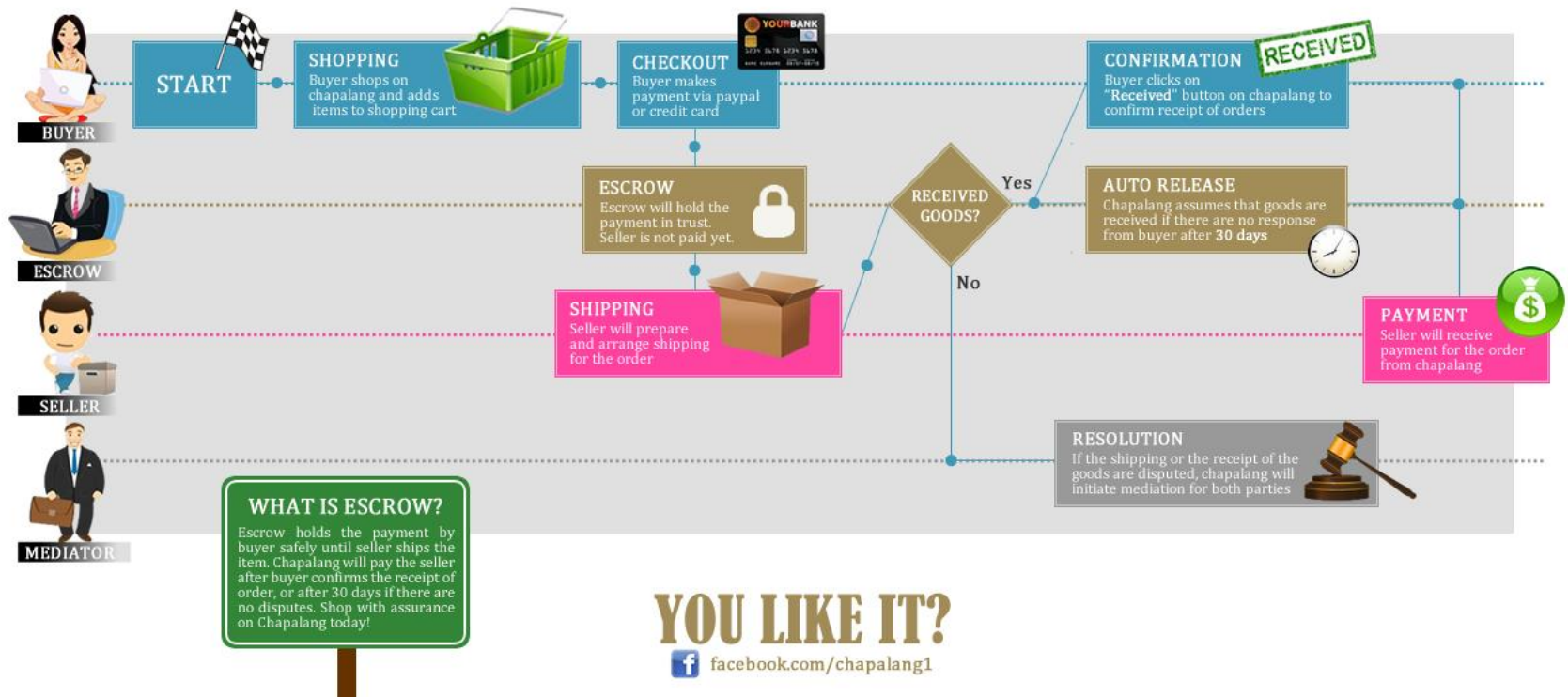www.Chapalang.com

Chapalang!

Chapalang! is a social utility that connects people with friends and new friends by offering a place for exchanging ideas and information on its public domain.

Supplementary Slides

Beyond these are all supplementary slides which are not meant to be part of the main presentation unless questioned.

Escrow Service

Gift Sharing
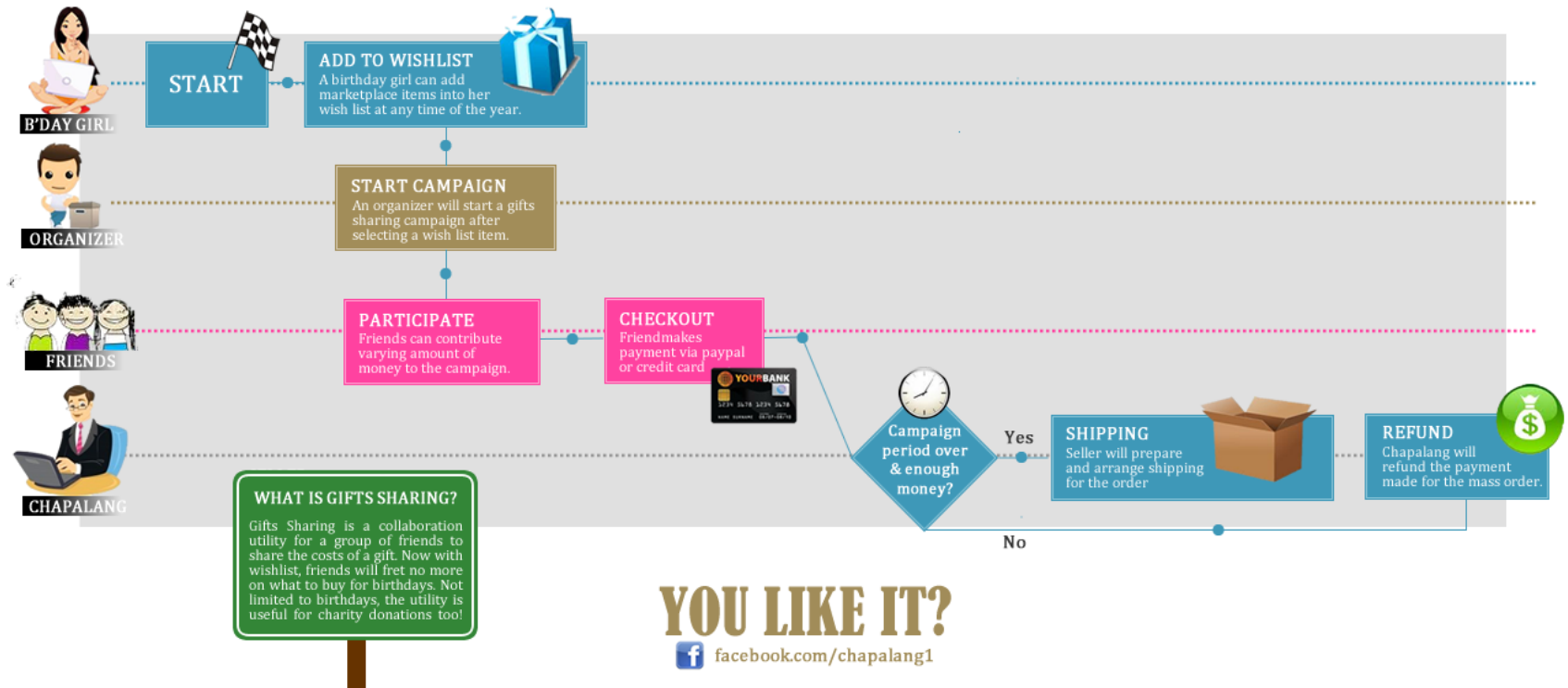
Mass Order

CHAPALANG MASS ORDER

SELLER

START

START CAMPAIGN
Seller starts a campaign on chapalang, defines the minimum quantity, price and campaign period.

Campaign period over & met min qty?

Yes

SHIPPING
Seller will prepare and arrange shipping for the order

BUYER

JOIN MO
Buyer takes part in the MO campaign with a defined quantity.

CHECKOUT
Buyer makes payment via paypal or credit card

No

CHAPALANG

REFUND
Chapalang will refund the payment made for the mass order.

WHAT IS MASS ORDER?
Mass Order is a group buy feature to enable multiple buyers of smaller quantities combine their order through an organized bulk buying campaign. Mass Order leverages on bulk pricing for costs savings. Save now!

YOU LIKE IT?
facebook.com/chapalang1

Capability Maturity Model (CMM)

Market Share of Browsers

Combined Stats from StatCounter (July 2012)

Pie chart legend:
- Chrome — 30%
- Internet Explorer — 28%
- Firefox — 21%
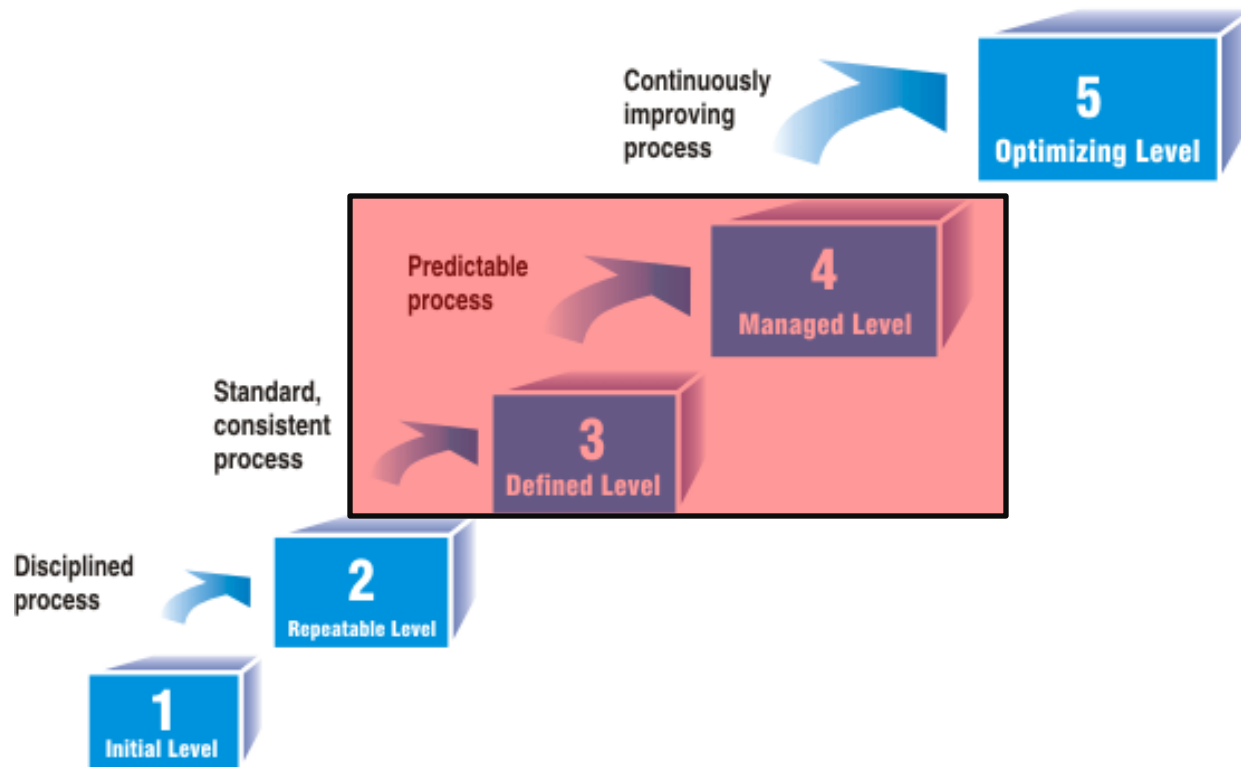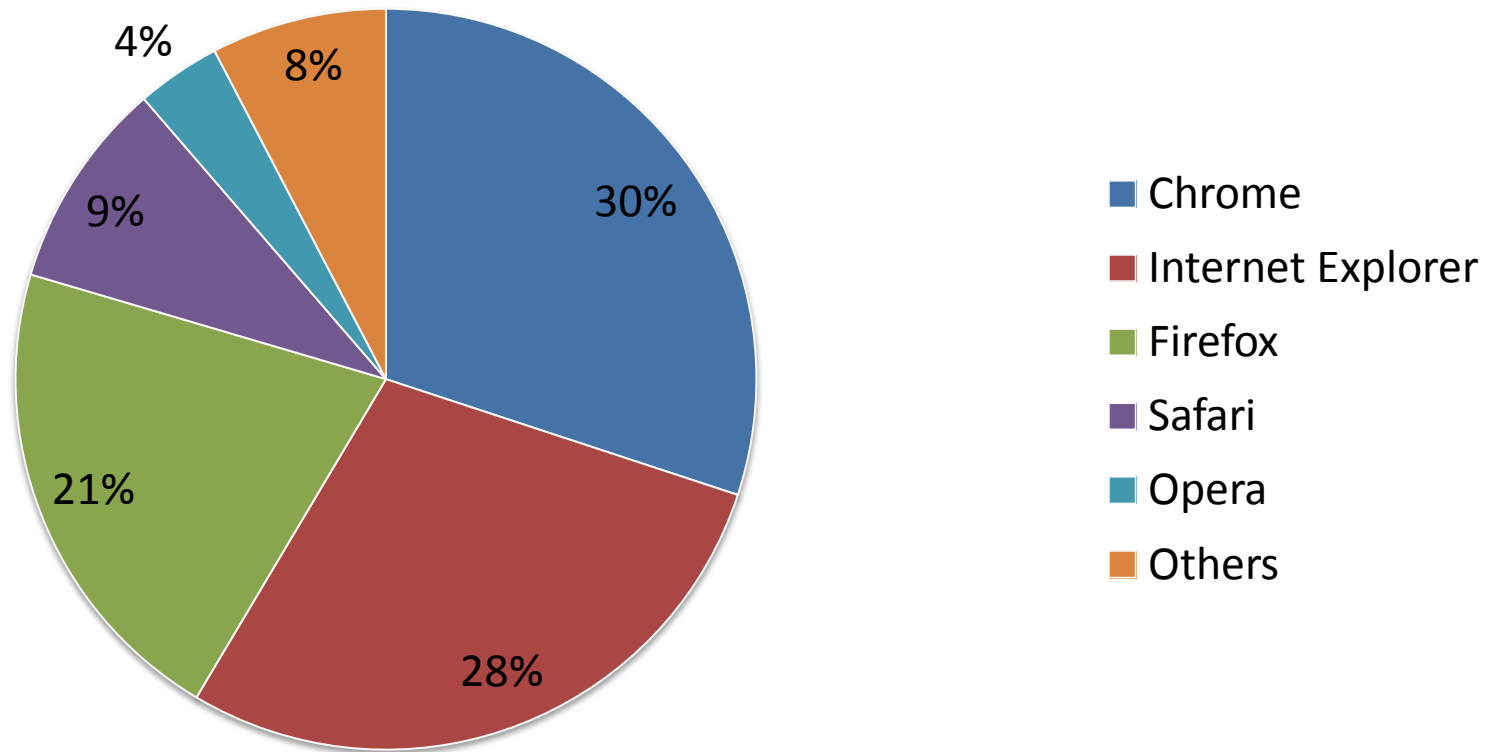- Safari — 9%
- Opera — 4%
- Others — 8%

Google Analytics (Browser Share)

	Browser	Visits ⌄	↓	Visits	Contribution to total: Visits
1.	Chrome		406	65.17%	
2.	Firefox		76	12.20%	
3.	Safari		76	12.20%	
4.	Internet Explorer		23	3.69%	
5.	RockMelt		15	2.41%	
6.	Android Browser		14	2.25%	
7.	Safari (in-app)		12	1.93%	
8.	Opera		1	0.16%	

Show rows: 10 ▾ Go to: 1 1 - 8 of 8 ‹ ›

This report was generated on 10/1/12 at 1:40:33 PM – Refresh Report
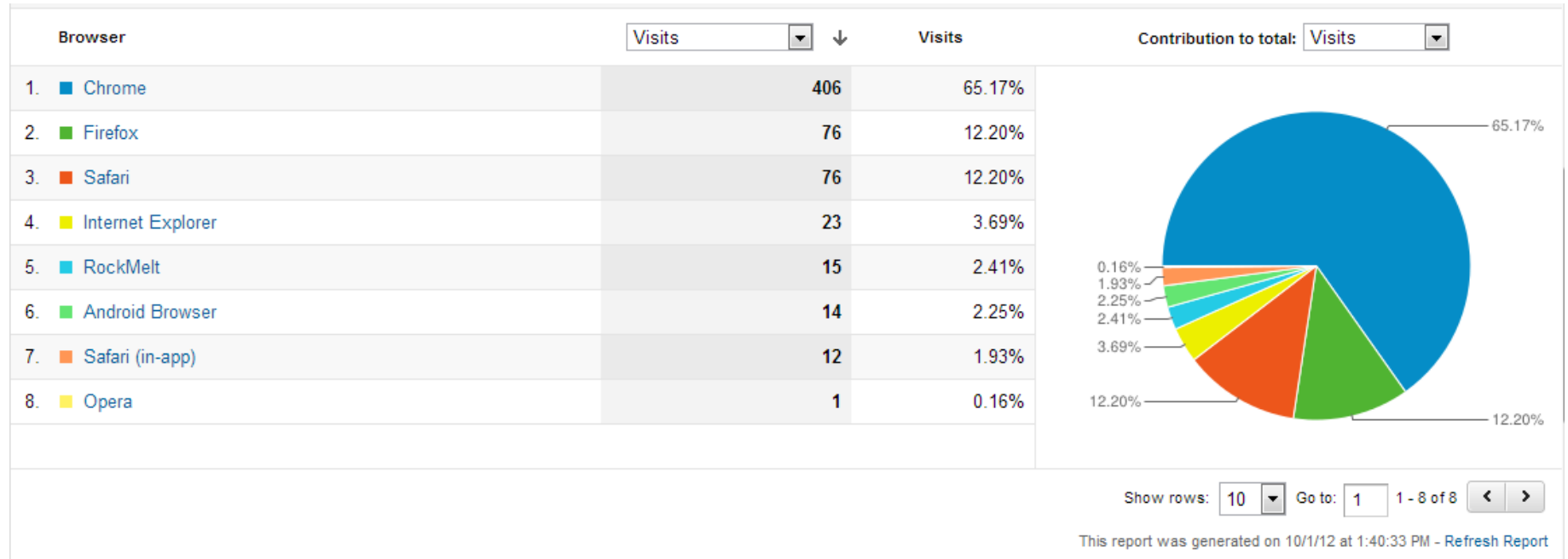
Scalability Design
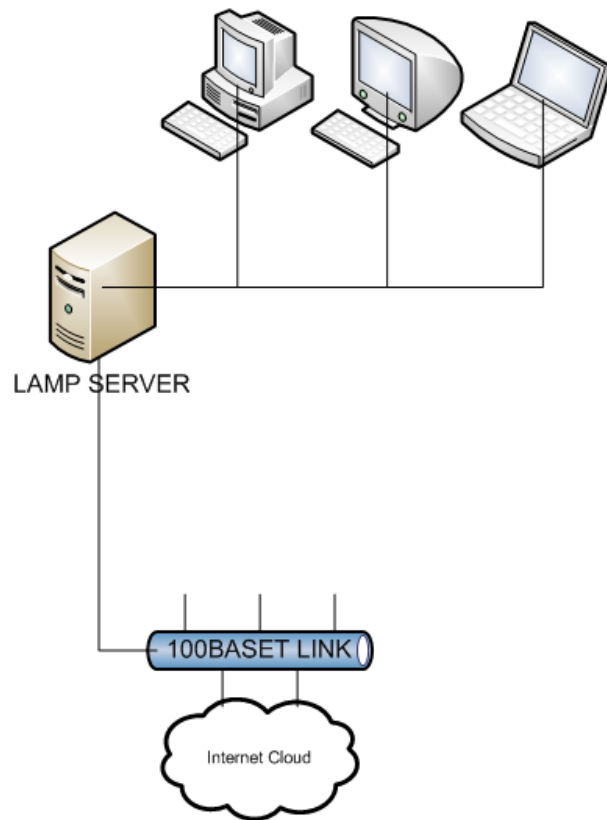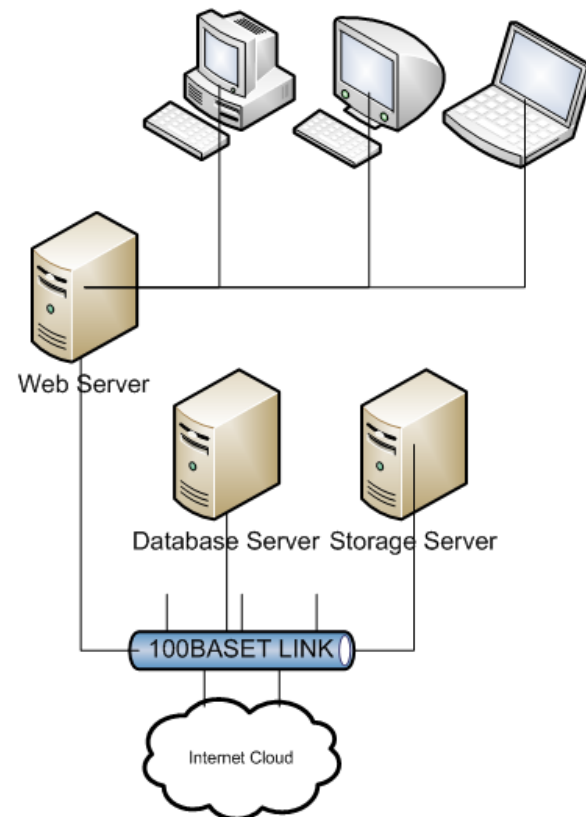
Comparison of Solutions (Discussion)

	Facebook	Twitter	Forum	Chapalang
Accessibility	Private	Public	Public	Hybrid
Social Element	Social	Social	-	Social
Inflow of content	Dynamic	Micro-blogging	Long	Dynamic
Type of content	Personal	Personal	Non-personal	Hybrid
User identity	Real	Fake	Fake	Real
Virality	High (Newsfeed)	High (Trending)	Low	High (Hybrid)

Comparison of Solutions (Marketplace)

|	Groupon	Amazon	Gmarket	Ebay	Blogshops	Forums
Registration of sellers	Restricted	Restricted	Unrestricted	Unrestricted	Unrestricted	Unrestricted
Sales Type	B2C	B2C	B2C	Auction	B2C	C2C
Payment	Online	Online	Online	Online	Online/Cash	Online/Cash
Social Aspect	Group	Individual	Individual	Individual	Individual	Hybrid
Escrow	x	x	x	x	x	X
Gifts Sharing	x	x	x	x	x	X
Mass Order	x	x	x	x	/	/

Class Diagram
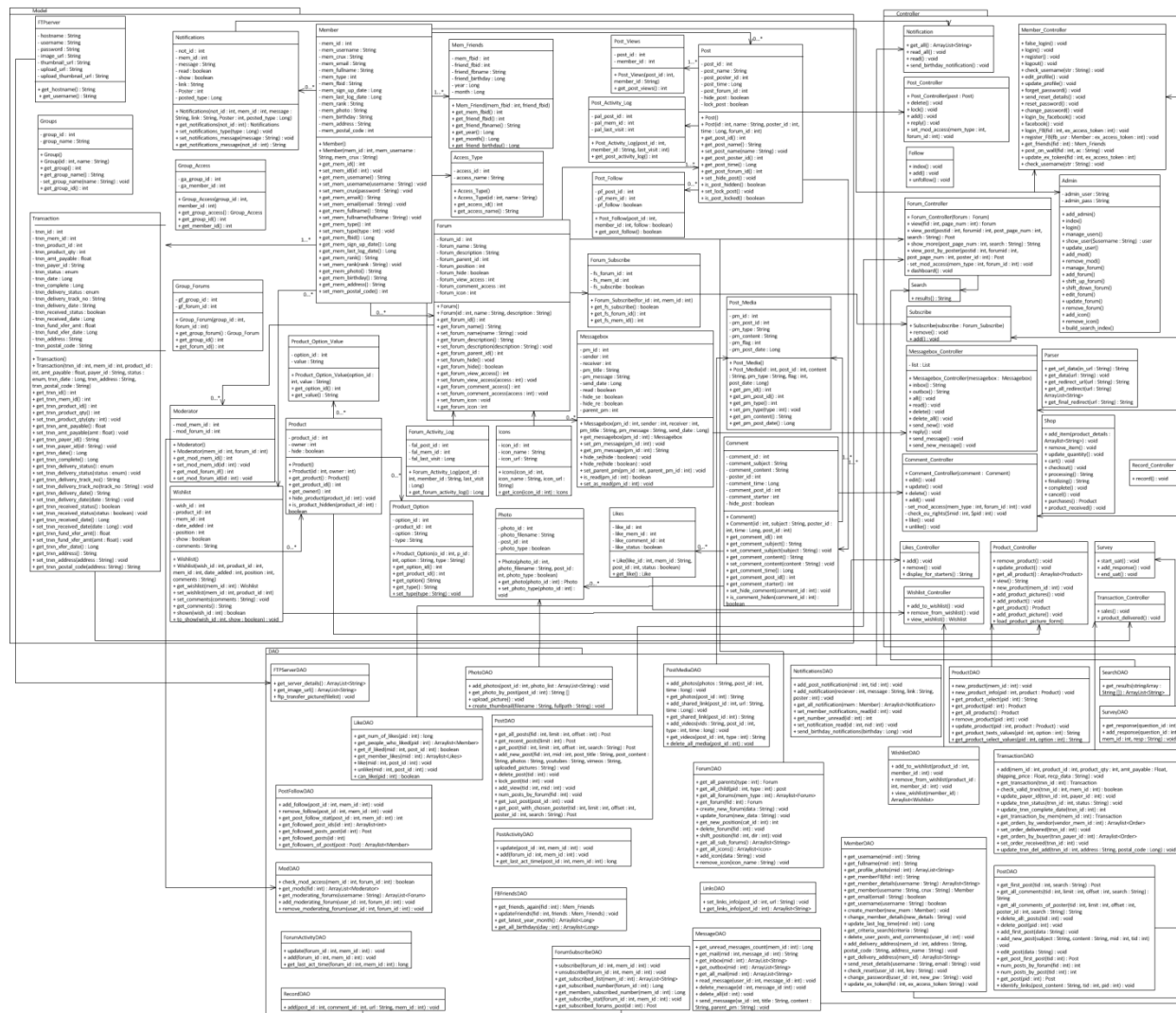
Logical Diagram
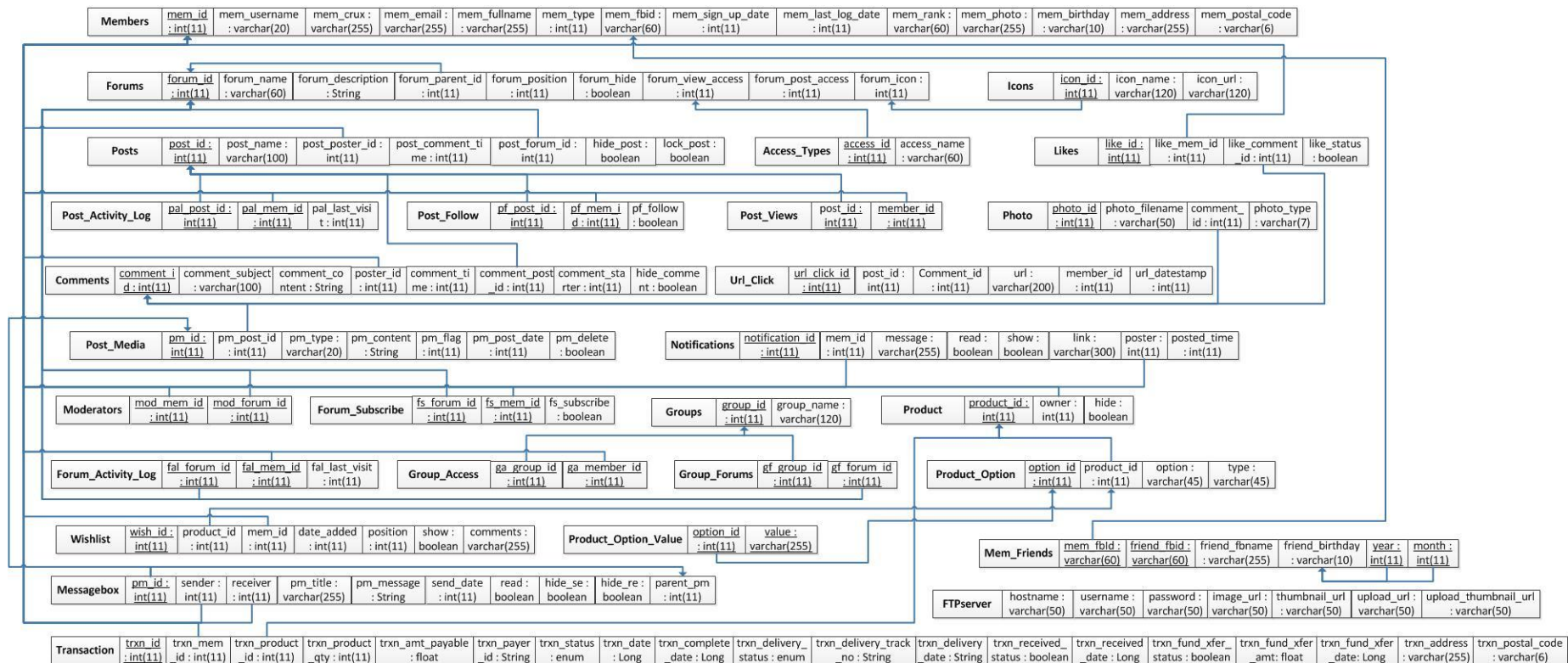
Use-case Diagram
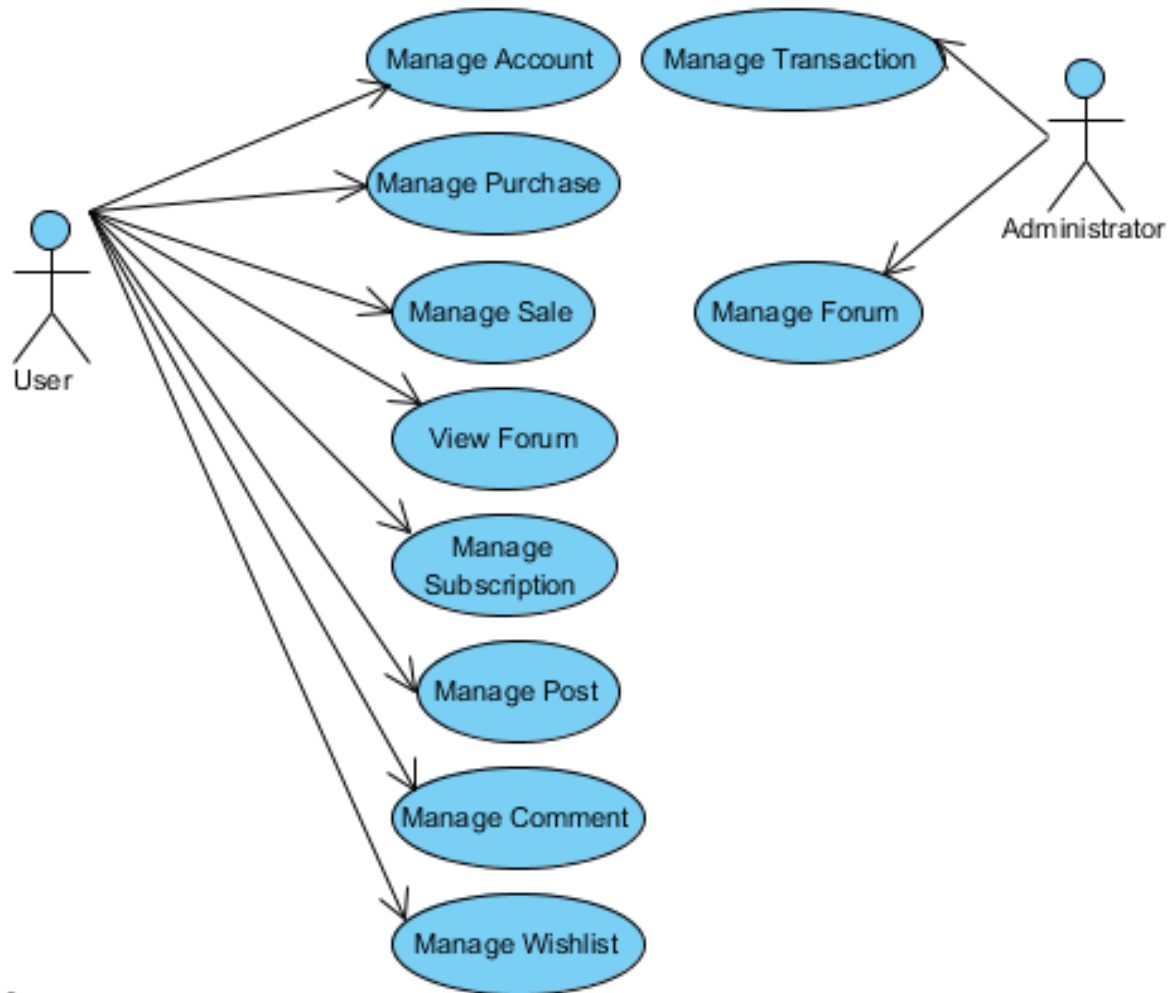
Sequence Diagram
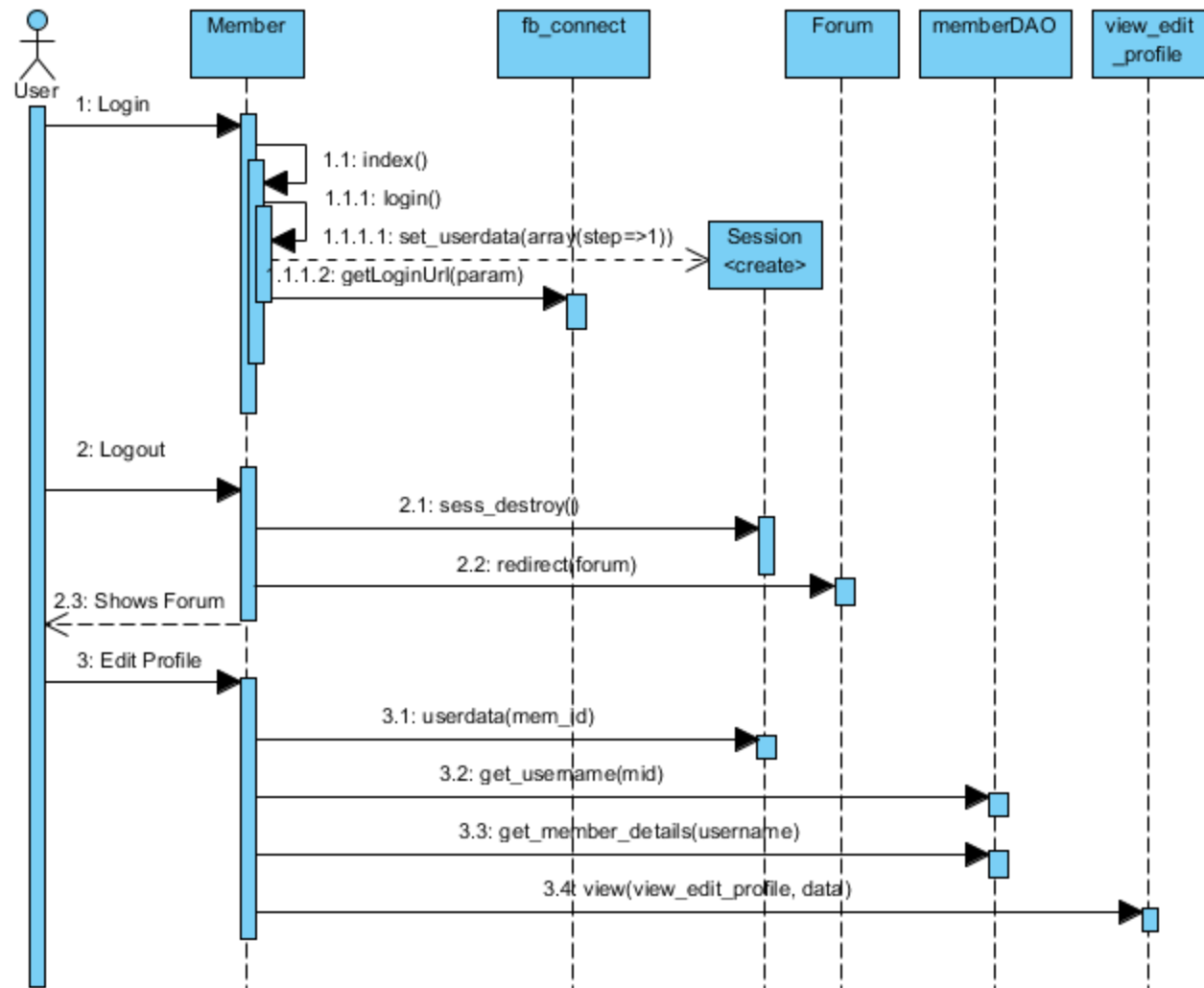
WHAT IS CHAPALANG?

- Connects people with friends, and new friends
- Leverages on real identity community of users
- Offers discussion platform to build active community
- Proposes marketplace to monetize the product for active revenue
- Solicits pay-per-click advertisements supported by analytics for passive revenue

Benefits of real identity community

- Encourages responsible activities and behavior
- Leverages on network of relationships
- Generates more relevant user data than conventional platforms
- Opportunities to develop online persona
- Extends relationship-based discussion to additional activities such as purchases, and contributes to categorical data based on activities

Available Platforms

- **Discussion**
    - Facebook
    - Twitter
    - Forums

- **Marketplace**
    - Deal websites (e.g. groupon)
    - Amazon
    - Gmarket n.k.a. Qoo10
    - Ebay
    - Blogshops
    - Forums

Challenges

- **Integrating external APIs**

  Instructions may be too technical, lack of additional support, many hidden rules on integration

- **Aligning business and system objectives**

  "This is a cool feature, but how much value will it give us?"
  "This is a valuable design, but it takes up too much time!"

- **Finding the right balance**

  Passion for excellence to push for maximum scope efficiency, yet realistically prioritizing tasks to earn more points in IS480

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