**PSM 1 EVALUATION** 





### UTM'S E-COMMERCE OF SERVICES (SERVICEX)

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### Background



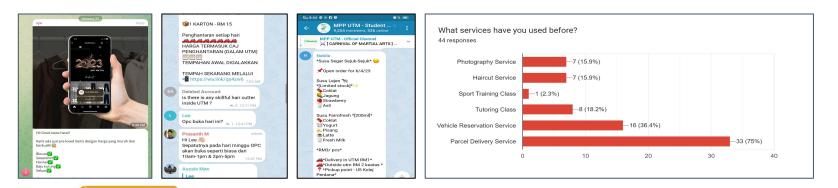




**Location** Universiti Teknologi Malaysia, Skudai

**Seller** UTM community

### **Buyer** UTM community



## Goal



Ideal platform

- Seller: Advertise their services by category
- **Buyer**: Assess seller's credibility, verify service availability, and place an order anytime.

## Objectives



Identify ServiceX's requirements in mobile applications.



Design and develop ServiceX based on user requirements.



Test the functionality of ServiceX according to user requirements.

### Scope



ServiceX is focus on the UTM, Johor Bahru's community only.



Users of this application include guest, seller, buyer, and administrators.

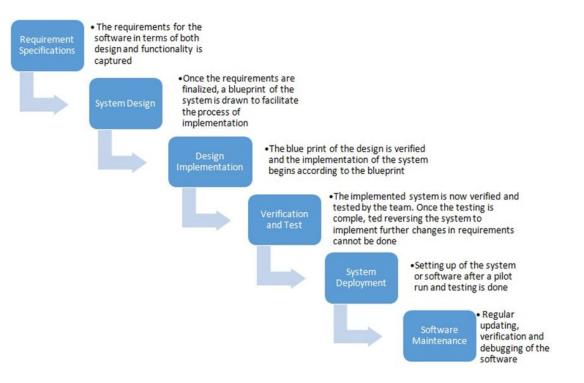


ServiceX only uses an **online payment stimulator**.



ServiceX only focus on users with Android devices.

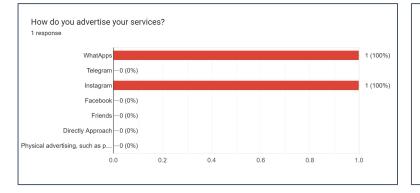
## Methodology

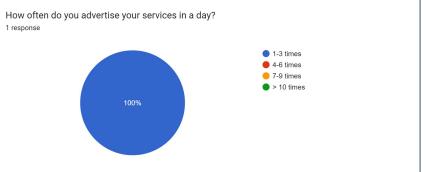


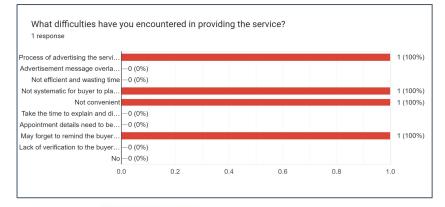
Six Phases of the waterfall model (Team, 2013)

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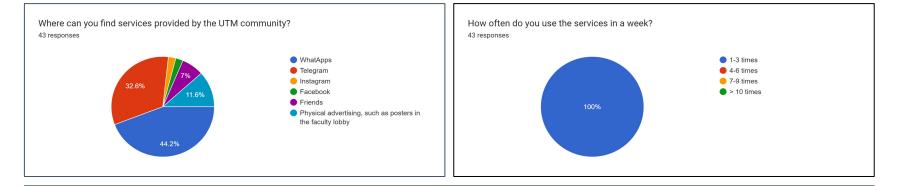
## User requirements (Seller)





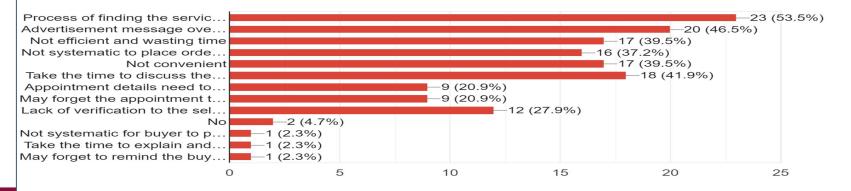


### User requirements (Buyer)



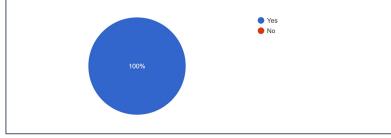
#### What difficulties have you encountered in providing the service?

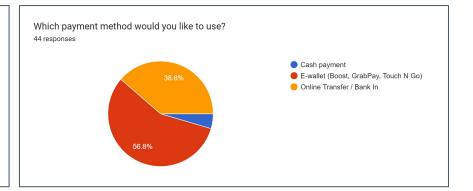
43 responses



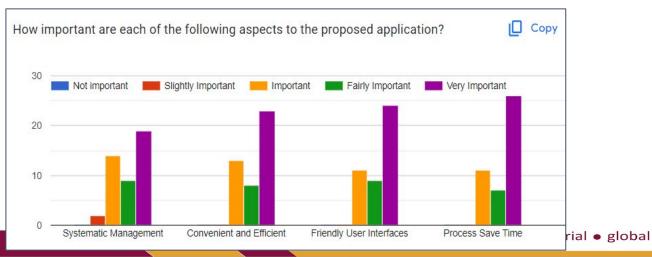
### User requirements (ServiceX)

If a mobile application (ServiceX) is developed to manage services in UTM, would you like to try the ServiceX application? 44 responses





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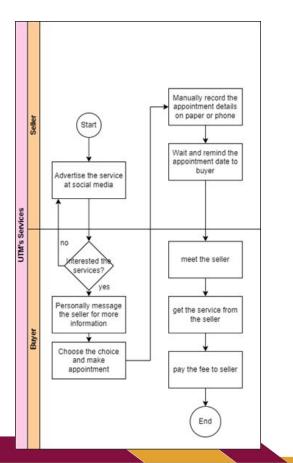




### Differences between the systems that have been studied

Features	Lazada	Mudah.my	Recommend.my	ServiceX
Able to sign in with Facebook and Google	/	/	/	7
Bottom navigation bar	/	/	X	/
Various kind of payment method	/	Х	1	/
Auto calculated the fee after the selection	/	Х	1	/
Buyer can easily to contact the seller	/	/	/	/
Buyer can report the seller	/	/	X	/
Buyer can review the seller	/	Х	/	/
User interface is clean and user-friendly	/	/	1	/
Buyer and seller are user within the same application	x	/	x	/
Provide a detail of the services	/	/	/	/

### Flowchart of Current System







Inefficient for buyer to place order by personal message or calling

Not having the right platform to advertise their services



Buyer unaware of the quality of the service and the seller's credibility



Handwritten orders are less systematic



Seller and Buyer might forget the appointment

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### UTM'S E-COMMERCE OF SERVICES (SERVICEX)









Ideal Advertising Platform

Place order at anytime

Review the Service's quality

Systematic Data Storage



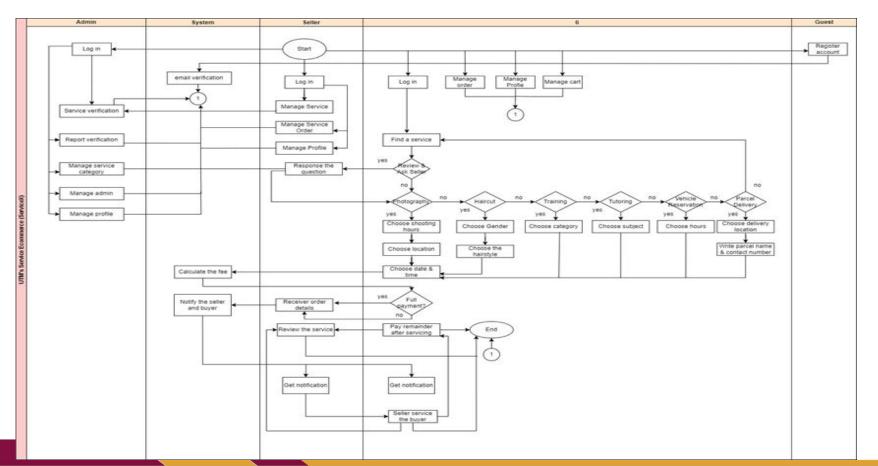
Appointment Notification



### Auto-generate sales report



### Swimlane Diagram of ServiceX



### ServiceX - Seller advertise their service

Order Status		Generate	Sale Report
1 To Service	1 Review	0 Cacncelled	0 Report
and he have	Location: Tasik		
Edit		5.0   50 sold	lete
Edit			

Add Service	Add Variation
Add Photo	Location 🖍 Tasik Ilmu #lamUTM +Add
Service Name Service Description Price	Shooting Price Per Hour 💉
Category 😫	Add Variation
Variation       Available Date	
Available Time	
Publish	Complete
Inbox Service Dashboard Finance Account	Inbox Service Dashboard Finance Account

Add Variation
Location 🖍 Tasik Ilmu #IamUTM +Add
Shooting Price Per Hour 🖍
(+) Add Variation
Complete
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## ServiceX - Advertising platform





## ServiceX - Quality of the Service & Seller's Credibility



**Barber Service** RM 10.00 \*\* \* \* \* \* 4.0 | 20 sold



BARBER KTDI MA1. KTDI 2 Services 4.0 Rating

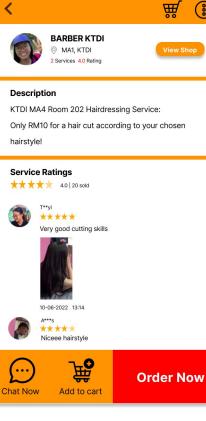
#### Description

KTDI MA4 Room 202 Hairdressing Service:

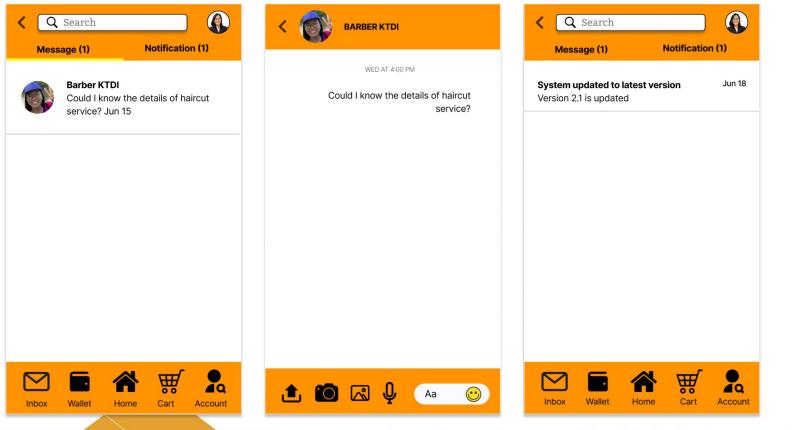
Only RM10 for a hair cut according to your chosen

hairstyle!

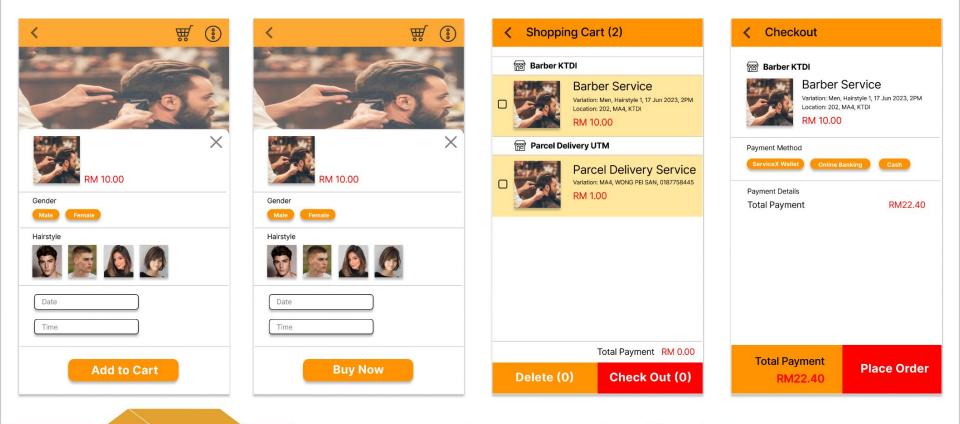




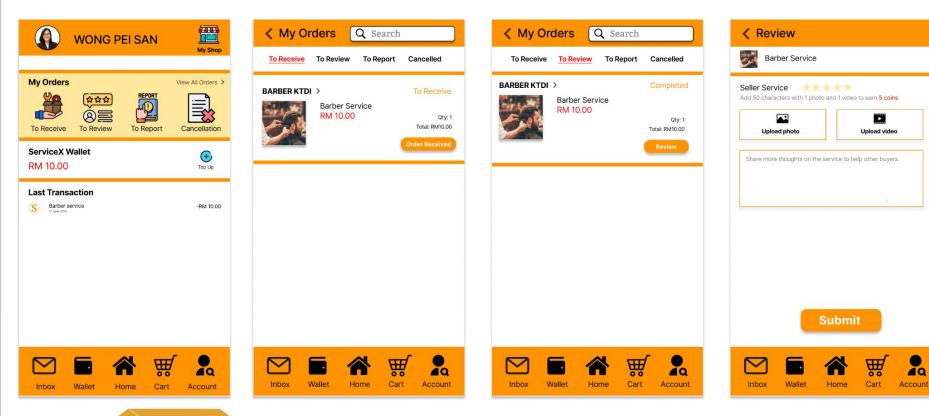
## ServiceX - Inquiry & Notification



### ServiceX - Making Order

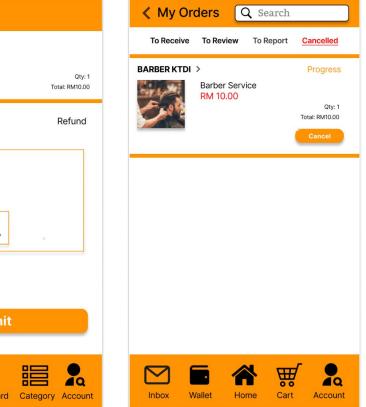


### ServiceX - My Orders

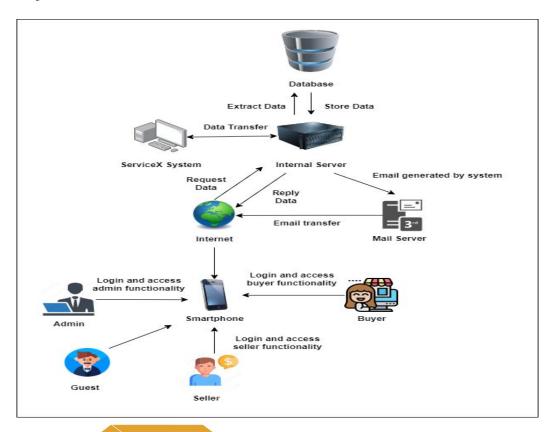


### ServiceX - My Orders Con.

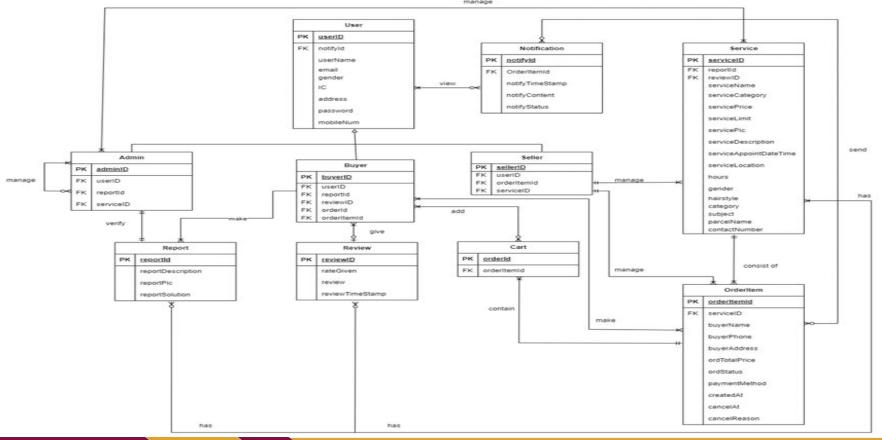
< My Or	ders	<b>Q</b> Search			Report
To Receive	To Review	<u>To Report</u>	Cancelled		BARBER K Barber Se
BARBER KTDI			Completed	n) –	RM 10.00
Sar Art	Barber Ser RM 10.00	vice	Qty: 1	_	
			Total: RM10.00		Solution
			Report	R	Description
					Leave your comments here
					Upload photo Upload
					Sı
					30
	_		- <b>-</b>		



### System Architecture



### **Database Design**



manage

### Network & Security Element



**User Authentication and Verification** Mobile Number, Password, Email



Authorization & Access Control List Guest, Seller, Buyer, Admin



### Secure Data Storage

Encrypt sensitive user data stored locally on the device to protect it from unauthorized access or theft.

- Encryption: Salt and Hash Passwords(bcrypt, Argon2), AES
- Password, Email, Phone Number

### Network & Security Element Con.



### Secure Data Transmission

Make sure to use HTTPS when sending data between your mobile app and the backend servers. HTTPS encrypts the data during transmission, keeping it secure from potential eavesdroppers.



### Secure Error Handling

Implement proper error handling and avoid exposing sensitive information in error messages that could be exploited by attackers.



### Input Validation & Sanitization

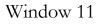
Protect application from various types of attacks and ensure the overall reliability and safety of user interactions.



### Software







Flutter



Android Studio



Email





Draw.io

### Hardware



Laptop



Smartphone

### **Project Importance**



Goal Achievement



Efficiency and Productivity



Stakeholder Satisfaction



Organization and Data Management



Innovation and Improvement



Time and Resource Saving



Reporting and Insights







# Thank you





