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PROGRAM: MASTERS PROGRAMME IN E-GOVERNANCE TECHNOLOGIES AND SERVICES

ROLE: SOFTWARE ANALYST, TRAINEESHIP

INTRODUCTION

This is in fulfillment of the Summer 2022 internship assessment by Kuehne+Nagel, for the Software Analyst/Product Owner role. A new product known as VENDIDO is described starting by highlighting data collected to the problem statement, the product's main objectives, features and finally, product's value to its two user personas.

OVERVIEW

It is observed that aside from Facebook market, there is no other digital platform in Tallinn that enables people to sell or donate clothes they no longer use. Facebook market has its drawbacks because the seller and buyer have to struggle with payment transactions, inspection, and logistics on their own. Over the years, second-hand stores like Humana, Sobralt Sobrate, Uuskasutus, and Paavli have been in the business of collecting, sorting and selling second-hand items. Recently, a mutual friend had to manually take all her unused clothes to a thrift store in Tallinn- this happened after she unsuccessfully tried to sell and arrange pick-up on Facebook Market. Major problems are clearly stated, following qualitative data collected, and also various feature sets are highlighted for solving these problems.

1. DATA COLLECTION

A. EMPATHIZE

- i. User Research To better design a user-friendly application, I tried to understand the different potential users of this application in other to capture their feelings and sense the emotions they are having. An interview was conducted among three persons, where specific questions about "experience" were asked. The first interviewee is an international student mutual friend who currently took clothes in large quantities to sell/donate to a thrift store, the second is an Estonian who used to work in a thrift store in Tallinn, and finally a regular clothing item seller on Facebook market.
- ii. **Competitor Research** Other platforms like Facebook market, Goodfair.com, and swap.com, and got some insights which are analyzed below.

B. DEFINE/IDENTIFY

- i. Research Findings/Problem- Based on findings from user research, the problems became clearer and were well defined as:
 - No digital/faster way to sell and accept clothing items, especially when they are in large quantities.
 - Facebook Market works, but might sometimes trust issues arise between sellers and buyers.
 - Sellers and buyers go through the stress of arranging pickup, logistics, payment, and inspection manually.
 - Time wasted for both parties- i.e. for cases where buyers reject an item after inspection.

Based on findings from competitor research, these were identified;

- Facebook market deals with a large number of items but this application will focus only on donations and sales of clothing items at the initial stage for prioritization and MVP sakes.
- Most of the companies are located in the U.S.

PRODUCT GOAL: Based on data gathered and the problems defined above, the product goal is to enable **the sales/donation, payment,** and collection of pre-owned clothing items between sellers and thrift store owners in Tallinn.

2. PRODUCT DESCRIPTION

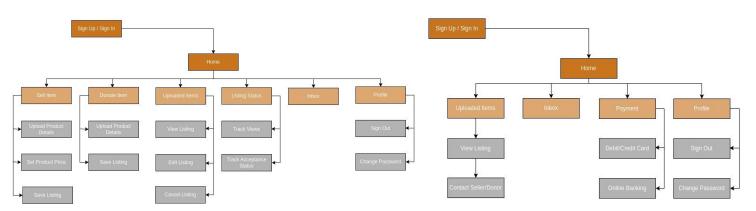
- A. WHAT IS VENDIDO? Vendido is a user-friendly mobile app that enables the connectivity between sellers of preowned clothing items and different thrift store owners within their locality.
- B. USER PERSONA- Two Vendido user personas are represented, keeping in mind the seller (pre-owned clothing owner) as User 1 and the Thrift Store Manager/owner as User 2.



C. PRODUCT FEATURES- Based on collected data from interview findings and competitor analysis, these are the features that Vendido has-depending on each user persona.

SELLER	THRIFT STORE OWNER
Register	Register
Log in	Log in
Upload/List items for sale or donation	Display listed items available for sale or donation
Cancel listing	Contact seller
	Pay for item

D. INFORMATION ARCHITECTURE (User 1 and User 2)

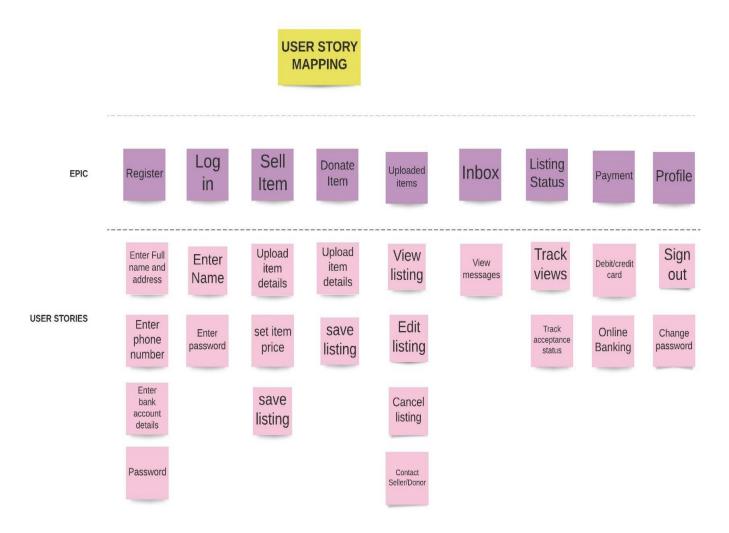


3. PRODUCT VALUE

- For individuals who desire to declutter their wardrobe of unused clothing items, Vendido is a mobile application that enables and handles the "sales and donation of unused clothing items" to interested Thrift store owners within one platform. Unlike Facebook Marketplace which only enables the display of items while other processes like pick-up, payment, logistics, etc. are manually handled by sellers/buyers.
- For thrift store owners who desire to collect unused clothing items, Vendido is a mobile application that enables the "purchase and collection of unused clothing items" from sellers. Unlike the manual process of collecting clothing items physically at the store.

4. PRODUCT DESCRIPTION WITH USER STORIES

The **features of** the **Vendido mobile application** have been broken down into **Epics**, and further into **User stories**. The diagram below shows the Epics and their further breakdown into user stories.



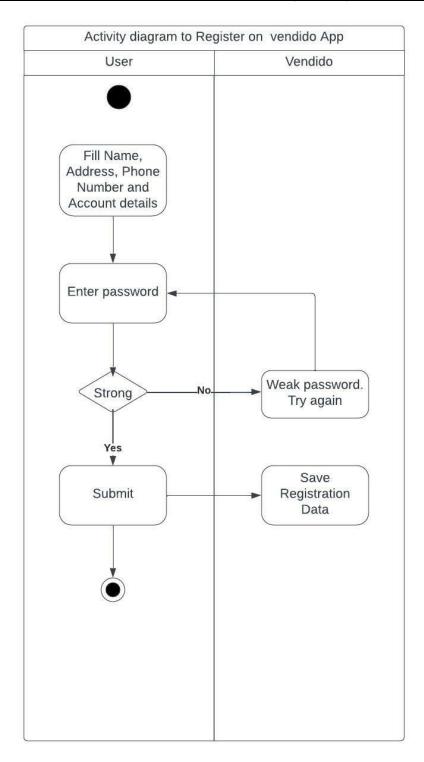
A. USER STORIES DESCRIPTION

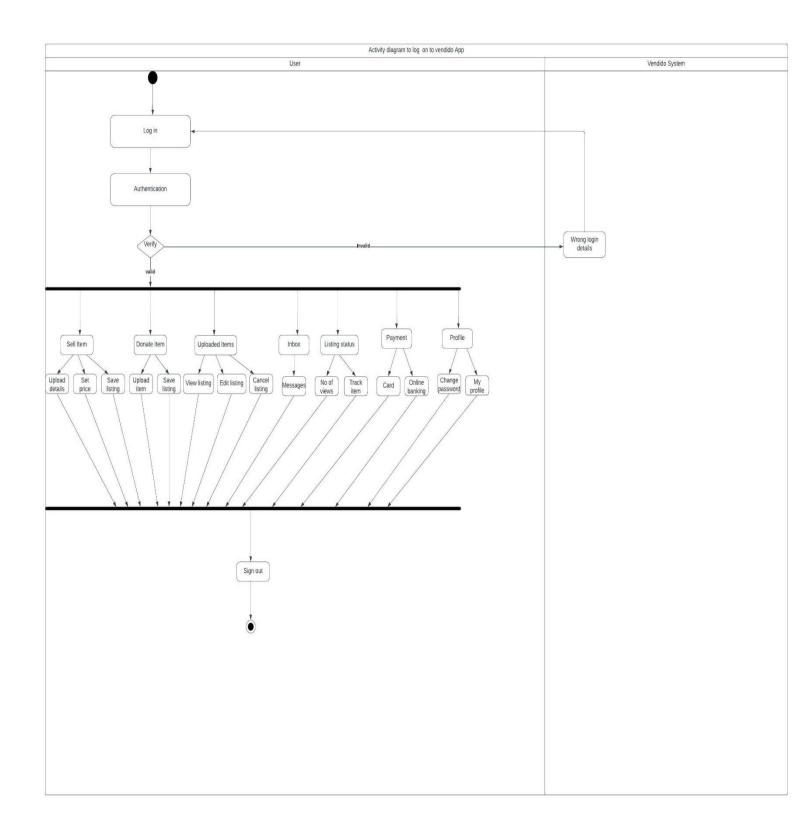
User stories highlighted in the diagram above will be further described into **26 User stories** to capture two different users and enable easy understanding for the Development Team.

EPICS	Register	Log in	Sell Item	Donate	Uploaded	Inbox	Listing	Payment	Profile
				item	Items		Status		
	1As a first	5As a	7As a	10As a	12As a	17. As a	19. As a	21. As a	23. As a
	time user	registered	seller, I	seller,	seller,	seller,	seller,	seller,	seller,
varn anonya	-I want to	user,	want to	-I want to	-I want to	-I want to	-I want to	-I want to	-I want to
USER STORIES	enter my full name	-I want to enter	upload items and	upload items	view	view	track	pay for	sign out
	and	registered	details.	and	uploaded	messages	views on	items using	-So that I
	address.	name.	- So that	details.	items	-So that I	listed item		can end
	-So that, I	-So that I	Thrift	-So that				my	
	can be	can have	store	Thrift	-So that I	can see	-So that I	debit/credit	use of the
	registered as	access to	owners	store	can see how	system	can know	card	application
	a user	the app	can see	owners	they are	notifications	how many	-So that item	
		features	available items for	can see free	displayed.	or messages	thrift stores	status	
			sale	donated		from thrift	have seen	changes to	
				items		store.	my listing.	"sold".	
	2As a first	6. As a	8As a	11As a	13. As a	18. As a	20. As a	22. As a	24. As a
	time user,	registered	seller,	seller, I	Thrift store	Thrift store	seller,	seller,	seller,
	-I want to	user,	- I want to	want to	owner,	owner,	-I want to	-I want to	-I want to
	enter my phone	-I want to enter my	set price for	save listed	-I want to	-I want to	track	pay for	change my
	number.	registered	uploaded	item	view listed	view	acceptance	items via	password
	-So that I	password.	item	-So that	items	messages	status	online	-So that I
	can be	-So that, I	-So that	donated	-So that I	-So that I	-So that I	banking	can keep
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		the app features	owners can see	and displayed.	what to buy.	system	monitor	status	safe.
		leatures	price of	displayed.		notifications	item pick-	changes to	
			items			or messages	up and	"sold".	
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			purchase.				passes		
							thrift store		
							owners'		
							acceptance		
							criteria		
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USER STORIES 16. As a Thrift store owner, -I want to contact seller/donor -So that I can arrange pick-up and					my account
USER STORIES 16. As a Thrift store owner, -I want to contact seller/donor -So that I can arrange pick-up and					safe.
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-So that I can arrange pick-up and				contact	
can arrange pick-up and				seller/donor	
can arrange pick-up and				-So that I	
pick-up and					
logistics					
				logistics	

5. <u>UML DIAGRAM FOR "REGISTER" ACTIVITY (new user) and "LOG IN" ACTIVITY (existing user)</u>



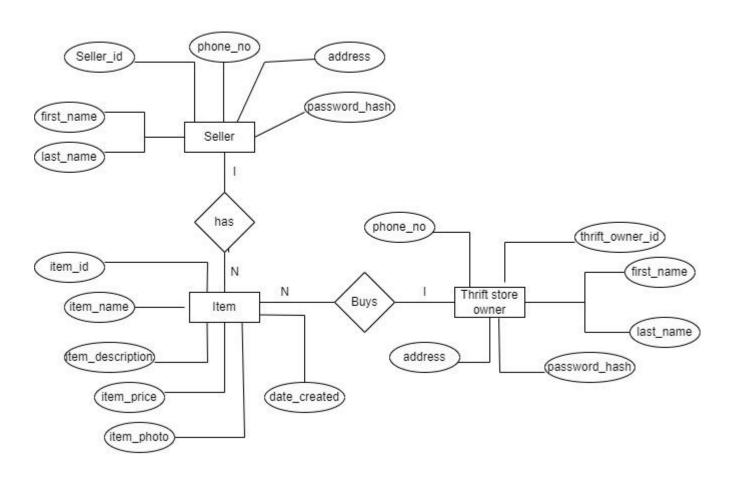


6. ENTITY-RELATIONSHIP DIAGRAM

The ERD diagram shows three entities and their attributes, as well as the relationship between them.

VENDIDO MOBILE APP

ENTITY RELATIONSHIP DIAGRAM



RELATIONSHIP: One Seller can have many Items (I-to-N) and One Thrift store owner can buy many items (I-to-N)