

EUROPEAN UNIVERSITY OF LEFKE

FACULTY OF ENGINEERING

Graduation Project I

Marketplace(Web application)

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“Marketplace (Web app)” is a project that allows to unite in one information and trade space suppliers and consumers of various goods and services and provides the participants of the united trading platform with a number of services that increase the efficiency of their business. For this, I plan to launch a website that will allow online sales and purchases of goods / services from business sectors in North Cyprus(Lefke).

Nowadays, the business system is highly valued by the relationship between the customer and the seller. Interactive communication plays a very important role in finding out the buyer's preferences. The most suitable and highly effective option is the Internet. The goal of my project is to convey this system to the target audience as reliably as possible.

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Table Of Contents

i	
Your Student Number	i
	i
	1
Error! Bookmark not defined.	
1.2 Goals	Error! Bookmark not defined.
	2
	3
	3
	3
3.3 Hardware	Error! Bookmark not defined.
4. Modules	4
4.1 Your First Module Name	4
4.1.1 Your Submodule name of first	Error! Bookmark not defined.
4.2 Your Second Module Name	6
4.3 Your Third Module Name	Error! Bookmark not defined.
5. Risk Analysis	6
6. Ethics	7
7. Conclusion	7
7.1 Benefits	7
a. Benefits to users	Error! Bookmark not defined.
b. Benefits to me	:8
7.2 Future Works	9
8. References	9

1.Introduction

The goal of this project is to create a website that allows online sales and purchases of goods / services from business sectors connected to this system.

Marketplace is a general set of activities related to the market economy, an online database. This is the best assistant or partner project for small medium-sized businesses, large retailers, wholesalers and domestic manufacturers to improve their business and solve the problem of customer policy.

The main drivers of e-commerce growth are e-marketplaces. They help small and medium-sized businesses to enter the market with minimal investment and skills. And these same sites ensure the security of data and payments, as well as consumer protection. And also my project is guided by the implementation of the following tasks;

- 1) Implement this project and bring it to the maximum level.
- 2) Ensure active business conduct of all sales services.
- 3) Create a modern and reliable environment for entrepreneurs.
- 4) Creation of an expanded online market that includes all business areas.
- 5) An open online marketplace that will be available to all citizens.
- 6) It will give the right to choose to our citizens.

"Marketplace" → business account (online store) → product / service → sale → customers

“Marketplace” → regular account (user) → product / service → purchase → buy / order with delivery

→ Business account

→ Online store → online sale → online purchase

→ Adding all Products / Services

→ Item reviews (feedback from the customer base)

→ Phone calls

→ Online payment (If it needs I can easily add it. I need API docs of their system(bank))

- Recommendation
- Cart
- Filter (specific product)
- Banner advertising
- Selected products
- Order history

2. Literature Survey

There is a lot of marketplaces in North Cyprus. Top of them are: bazaraki.com, inncy.com and cypazar.com.

Bazaraki.com is an advertising website owned by a group of Cyprus enthusiasts dedicated to the idea of creating a useful and convenient platform for users to sell and buy real property and other goods/services

Cypazar.com and inncy.co online platforms which you can sell and buy goods/services, this websites dedicated only North Cyprus.

Compare1 : See store profile.

There is no store profiles in all of these marketplaces. As a user I can not see selected store products. Example: There is kiler's and starlings products in marketplace. I want to see starling's profile. It's categories, items, sales and rate it. I will add a page which shows list of stores. User can select favourite or any store which he/she can see all detail about store.

Compare2: Adding item to cart(basket).

In my project when user adds item to cart, for every stores will be created seperate cart. Name of store, items, quantity of item, increase or decrease it, total cost, add more and order. Below, cart for another store. Example: User added to cart 10 items from starling and 5 items from kiler. Cart for starling will be created with 10 items. And below another cart for kiler. If cart for stores already created all new added items of store will be added to created cart otherwise new cart for store will be created.

Only Inncy.co have store names of items. But you can't see profile of stores.

In inncyco marketplace if user adds item to cart, system not seperate it by stores.

Compare3 : User favourite items

In other marketplaces as I mentioned above, there is no user favourite items function. It's very useful function. User will select favourite items or frequently purchased good, and he don't need to search it again.

In my website, after successful purchase, the cart will be deleted successfully.

3. Background Information

3.1 Required software

- **React Js (frontend):**

React JS is a javascript library used in web development to build ineractive elements on websites

- **DRF (django rest framework) (backend):**

Django REST framework is a powerful and flexible toolkit for building Web APIs

- **Pycharm :**

Proffesional Code editor.

- **Postgresql :**

Postgresql for database.

3.2 Other software

- **Figma :**

Used for design.

- **Git :**

Used for repository.

4. Modules

This marketplace have two sides: Buyers and sellers.

4.1 Regular account

This module used by buyers.

User login/register. User can skip it, but anonymous user can't add item to cart, select item as favourite.

In main page:

- List of all items from different stores.
- User can filter it by category, store, popularity(views), price(low, high) and search it by name and description.
- Add to cart, select it as a favourite item

Item detail:

If user click to item, he/she can see item in detail.

- All info about item.
- Add to cart or order directly, select as a favourite items
- Below, there will be list of related items

Page stores:

- List of stores with name, logo and slogan
- Search store by it's name and slogan

Store detail:

- All store info (address, name, logo, slogan, description, rating)
- List of selected store categories
- Review
- At the top banner advertising
- Call to selected store

Store category:

- If user clicks any category, he/she can see all items related to selected category and store.
- Can filter, add to cart, view in detail, select as favourite item
- Go to home page

Cart:

For every store will be created own cart. Ex: 5 items from kiler, 5 items from starling.

Cart for kiler created with it's 5 selected items, below cart for starling created with it's 5 selected items.

- Increase or decrease quantity of selected items, remove it from cart.
- Add another
- Can see total cost
- Give order

Order detail:

- Write phone number, address, order type: delivery or pick up. If user already registered and wrote his/her phone and address in profile, I will paste it automatically. But user can write another address and phone.
- Payment type (not in 1 version, if I will continue working on this project)

Profile:

- Self information, edit it
- Favourite items
 - List of selected items
 - Remove from favourite items
- History of orders
 - List of orders

Order detail

- Date, type, status, ordered items, client address, phone

Settings:

- Change language (Turkish, English)
- Share

- Quite

4.2 Business account

This module used by sellers

Store login/register (can't skip it)

In main page:

- List of orders(realtime update) with statuses (all, new, packing, ready, delivering, delivered, rejected). Statuses may change.
- Can see order in detail, If order status new, store need to call to buyer and verify order(User may just played, or). If order real, store confirm order, otherwise reject it. Statuse of order will change.
- Search orders
- Store goods/services
 - * Add new goods/services
 - * Edit existing goods/services
- Update profile, exit

5. Risk Analysis

To make orders real time update, I am looking 2 options.

- 1) Use websocket
- 2) Use Firebase

If I use websocket it needs very large server, otherwise it won't work. But large servers are expensive, and in the beginning I can't pay it. Because of this I am looking to make it using Firebase. Firebase is very cheap and works fast.

When order creates, I will send it to backend and to firebase too. And from firebase I will use it to just update orders real time.

Firebase risk:

Let's say, project launched successfully, many people started using my website. Other companies who is developing marketplaces, added new features and competition also rises. And suddenly, firebase stop working or firebase raises costs of their services. It takes a time to add websocket instead of firebase. And during this time we can lose many of our clients.

Stores may refuse using marketplace:

As I already said, customers can compare prices, and high-priced markets may refuse to use the website. and this is a very big minus.

Stores don't want to share all products in website

It may or may not be real risk, some markets don't want their products to be parsed from competitors

6. Ethics

- No single seller or buyer will so dominate the market that he is able to force the offers to accept his terms or go without
- All exchanges are fully voluntary. That is, participants are not forced to buy or sell anything other than what they freely and knowingly consent to buy or sell
- Buyers and sellers are free to enter or leave the market as they choose
 - No external parties regulate the price, quantity, or quality of any of the goods being bought and sold in the market
 - Costs and benefits of production or use exchanged goods fully bear those who buy or sell goods and not by anyone other external parties.

7. Conclusion

7.1 Benefits

a) Benefits for stores(business)

- Fast attraction of new clients;

- Increase in the number of calls, orders and purchases;
- Organization of online sales;
- Reduction of transaction costs;
- Healthy competition;
- Minimization of fraudulent transactions;
- Modern and reliable business management;
- Rapid business expansion.

b) Benefits for regular users:

- Optimal prices;
- Saving time;
- Preservation of nerve cells;
- Wide selection;
- Convenience in shopping.
- Make purchases without leaving your home

c) Benefits to me :

- Before launching the site, I offer all stores to sell products from my site, and in return I will ask a small percentage of the net income from sales from my site.
- There is banner advertising on the main page, from there you can also make good money
- Advertising from google edwards

Why did I choose this project?

In quarantine for 4 months I did not leave the house in Lefke. I ordered groceries to home. I did all this through a phone call, not knowing either the price or the photo. Every time you ask from store employee the price, is the product fresh. And I was sure not only I was calling them

Sometimes you want to eat something unusual, you don't know what exactly, you ask something, it does not have in the store. I said then, God, this is the 21st century, and we live in which century. We urgently need a solution to the problem, and this idea occurred to me on that time.

I wanted to facilitate the work of both the store employee and the customer.

7.2 Future Works

are you going to continue this project after graduation, if yes, What improvements will you do? (1-2 paragraph)

After graduation I am planning to continue working on this project. On future works I am planning to add direct chats inside web. Client don't need to call store for any questions. Just write from website.

Add VIP accounts for store and clients. VIP store accounts, their goods/services will be shown first on main page. VIP client account. How it works? Example: Client will pay 500 tl for a month and will get 10 % sales for all goods/services. But to do this one, firstly I need to agree with stores.

- Add online payments

8. References

<https://inncy.co/en/>

<https://www.cypazar.com/>

<https://www.bazaraki.com/>

Literature survey, marketplaces in NC

<https://ftms.edu.my/> : Some ethics similar to my project

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