

## Milestone 4 Documentation: Team 3 (TheTechnos)

### Product Summary:

- Name of the product : “Der Markt”
- List of all major committed functions:
  1. **Search Product by Category:** User should be able to search product by its category in the navigation bar
  2. **Search desired Product:** User should be able to search his/her desired product by its title/Filter and View product details by clicking on product image
  3. **Registration:** User should sign up in the system for selling and buying purposes
  4. **User Login:** User should be able to login/sign in to the system successfully by putting correct email address and correct password to his/her account
  5. **Add a Product:** A registered user should be able to add a product in the system for sale
  6. **Admin Sign up:** A registered user should be able to add a product in the system for sale
  7. **Admin Login:** Admin should be able to sign in successfully by providing correct account details, Email address and password
  8. **Approval by Admin:** After adding a product by the seller, the admin will review the product and if the admin approve this product then the product is ready for sale and it is visible to the other users
  9. **Rejection by Admin:** After adding a product by the seller, the admin will review the product and if admin rejects the product then the product should not be published in the system and should not exist in the system.
  10. **User Chatting:** User should be able to send messages to each other and user should be able to discuss about product details in the system by chatting
- Url: <http://3.89.26.50:3000/> (Note: Changeable)

### Usability test plan:

#### Test Objectives:

In our product we are going to test the search functionality. We are choosing it because when a user is looking for a particular product it should give the list of products associated with that particular product if a string or a number or both are matched. For example if a user is looking for an iPhone and we have all the different models of iPhone in our product page, then the search function should be able to return all the iPhones with their different number and anything that starts with iPhone. However our search should not return Samsung or Google Pixel phone as the search result. We also have various filters to make the search easier. For example, If the user is looking to buy an electronic device under 100 Euro in Fulda, he can use filters to search for it.

This is one of the major check parameters in any e-commerce website that a user retrieves what user wants to retrieve and not some random values.

### **Test Background and setup:**

#### **System Setup:**

**Starting Point:** The system starts with the user landing on our Website's Page and is asked to login/register or a user can directly start buying or selling the product.

#### **Case I:**

Once the user clicks on the Start Buying then the user can see the products present in the product page or available products on the website. If a user wants to buy something then it would be mandatory for the user to first login to the system. If there is already an user's account, he/she can fill the details directly which is a username and password directly and then can continue to keep buying. If they don't have any account, then first they would be required to create an account and then only further they can proceed with the above mentioned steps. Once the login and/or registration of the user is done, based on the familiarity of the user, the user can chat with the seller, in order to place the order and talk about the payment details regarding the particular product.

#### **Case II:**

If a user clicks on 'Start Selling' page at first without logging in, then they would again be required to login to the system first and then proceed with Posting the ADS on the website. Once a user has successfully posted an Ad, then it will come to Admin panel for it's approval or rejection. In the Admin Panel, the admin has to ensure security to the buyer by taking some faking preventive measures. One of the measures taken to ensure the safety of the user is, that the user can be only a member of Hochschule Fulda, and that the product to be sold must have 2 different pictures, which should not be on the public web (the admin has to ensure that it is the right product, by looking at the pictures, if the admin thinks that the pictures are not originals, he has the right to reject the ad and send a message that states the reason of the rejection to the seller). Once the Admin panel approves the request, the Post will be visible on the website otherwise not.

**Intended Users:** Our main intended users are the Faculty and the students of Hochschule Fulda. Any user with the email id that ends with @informatik.hs-fulda.de can register and login to our system. Other than that, if a user comes up with any other email address, he/she would not be allowed to register to the system.

**URL** of the system will be provided shortly which still has to be finalized.

In URL evaluation, we will evaluate if the URL is safe and is using the SSL protocol. If there is a possibility of any kind of SQL injection in the URL that can be done. Then we will see the time complexity of how much time it takes for a website to load into the browsers.

What is to be measured: We are going to measure the usefulness of our website in order to see how much it is convenient for a user to go through our website and how good the experience is. We will also measure if it is easier for users to understand by themselves how to move through the website, if at any given point the user is not understanding something or having troubles knowing the usage of the website i.e self explanatory website.

**Usability Task description:**

The tester will be on the “start buying or browse page”. The tester will be asked to perform some cases in various situation:

**Case 1:**

You want to buy an iPhone under 900 Euro in your city. Your task is to search an iPhone according to the description from the browse page.

**Case 2:**

You want to buy a vehicle in your city that costs between 10,000 Euro to 16,000 Euro in your city.

**Measuring Effectiveness:**

- Are the users able to search for the product they were looking for?
- Are the users able to search for the products they were looking for within their requirements (budget, location).

**Measuring Efficiency:**

- How long it takes for the user to search for the product according to their requirements.
- Are the users using the filter & search bar options to look for products or browsing through products one by one without them?

**Questions/Feedback:**

- How easy it was to use the search bar feature on a scale of 1 to 5?
- How easy it was to use the filters to search for the product according to your requirements on a scale of 1 to 5?
- How was your overall experience with the search/browse feature of our website on a scale of 1 to 5?

## DerMarkt Website Questionare

Ratings for website on scale of 1 to 5 (5 being the best option)

Untitled Question \*

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

How easier is it to navigate through the website. \*

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

Did you like the product description on our website. \*

- ☐ Yes
- ☐ No
- ☐ Maybe

Did the search for products option returned correct Search Results? \*

☐ Yes

☐ No

☐ Maybe

How much easier was it to post the ad on our website?( 1 -> not easy , 5-> very easy) \*

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

Terminal

## QA Test Plan :

**Test Objectives:** The main purpose of the given test plan is to test the core functionalities of the website along with a few security features to handle any unauthorized access on the website.

### HW and SW setup:

We would be testing the functionality using the following combinations of HW/SW:

Device	OS	Browser
MacBook Pro (2015) with 2.7Ghz Dual-Core i5, 8GB RAM	MacOS Big Sur	Google Chrome, Safari
Xiaomi Mi 9 Lite	Android 10	Google Chrome

**Feature to be tested:** Search Product, Add Product, Login, Register, Product Details

**QA Test Plan Table:**

Test #	Title	Description	Input	Expected Output	Result
1	Launch Application	Check whether the app loads the homepage correctly	http://3.89.26.50:3000/	Der Markt Homepage should be visible	PASS
2	Register a new user	The users must be able to register themselves on the website in order to post ads and see products. This is one of the core functionalities of the website.	1. Click on the register button. 2. Enter information such as name, email and password. 3. Click on the "Create Account" button.	If the credentials are correct then the user will move to the Login Page.	PASS
3	Login to the website with correct credentials	Users must be able to login to the website to post ads.	1. Enter the username and password. 2. Click the login button.	If the credentials are correct then the user will move to the Login Page.	PASS
4	Login with false credentials	Since login should help prevent unauthorized access to the website, therefore, a test with false credentials must be carried out as well.	1. Enter the username and password. 2. Click the login button.	If the credentials are wrong, a message must be displayed to let the user know that he/she has entered the wrong credentials	FAIL
5	Search product	The main feature of the website is to be able to see ads and search for the desired product. This is the core functionality of the website.	1. Write the name of the product you want to search. 2. Choose any category. 3. Enter the City name. (optional) 4. Enter price range. (optional) 5. Click on the "Search" button.	If there is a product which matches with your search criteria then the system will show the filtered result.	PASS

6	Product Detail	The product details page is responsible for showing all the details about the ad the user has clicked.	1. Click on any product on the page.	Complete details of the product along with description, specs and image should be visible	PASS
7	Start Selling	Posting ads is also one of the main features of the website. Users should be able to post ads so that they can sell their products on the website.	1. Click on the "Start selling button". 2. Enter login credentials and click the "Sign in" button. 3. Enter the title, description, price and pictures of the product you want to sell. 4. Select the appropriate category which best matches with your product. 5. Add the address with postal code, city name and Street number. 6. Add contact details. (Name and Phone Number) 7. Select the color and condition of the product. 8. Click on the "Post Ad" button.	An ad should be posted on the website and the user should be redirected to browse products page.	PASS
8	Start selling without logging in	As a security feature, only the logged in users should be able to post ads on the website. This has been done in order to prevent any unauthorized user to post spam	1. Click on the "Start selling button" on the homepage or on the header.	Instead of being redirected to Add Product page, users should be redirected to Login Page.	PASS

		products on the website.			
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## Code Review:

*Email from Kamal to Parul. Kamal reviewed browse page and product details page frontend code.*

### Code Review Feedback - Kamal



**Kamal Chhirang** <me@kamalchhirang.com>  
to parulsoni799 ▾

00:19 (4 minutes ago) ☆ ↶ ⋮

Hello Parul,

I have reviewed three files on which you worked. It works well on various browsers, it is responsive (Chrome, Opera, Firefox, Edge, Safari). You are using relative links, that is great, as the website won't break, even if we change the URL. However, I had a few points that may improve the code readability and maintainability.

I noticed that the navigation bar tag (<nav></nav>) and the content inside seem redundant. It would have been better if you would have included the .ejs file instead of writing the code inside like you did in the footer case.

In my opinion, the Javascript tags are also inside the HTML file, it would have been better if they were in a separate file.

Thank you,  
Kamal Chhirang

### Parul's review on Fiaz's code:



**parul soni** <parulsoni799@gmail.com>  
to fiaz.ashraf, fiazashraf73 ▾

1:25 PM (0 minutes ago) ☆ ↶ ⋮

Hello Fiaz Ashraf,

I have reviewed your code (addProduct.ejs and register.ejs). It works well on various browsers, it is responsive (Chrome, Opera, Firefox, Edge, Safari). The code is properly indented.

I have a few points on the code readability and maintainability. It would have been better if you would have included all the CSS styles into a separate CSS file instead of the HTML tags itself like you did for <form> tag. It would also be the same case for the navigation bar, that you include the navigation bar code into a different ejs file instead of the same HTML code.

Thank you,  
Parul Soni

### Mohsin's Review on Shazeem's code:

From: Mohsin Kamal Akbar <mohsin.kamal.akbar@gmail.com>  
Date: Wed, Feb 3, 2021 at 1:00 PM  
Subject: Code Review Feedback - Mohsin Kamal Akbar  
To: <Shazeem9@gmail.com>

Hi Shazeem,

Below is the report for your code (admin.js):

The code is overall of a good quality and it is pretty good that every function follows the same pattern which makes the code much more easier to understand. A slight improvement could be the removal of all unnecessary parameters in the functions can be removed.

Best Regards,  
Mohsin Kamal Akbar



### *Fiaz's Review on Hitesh's Code:*

Fiaz Ashraf

to me ▾

Tue, Feb 2, 9:48 PM (15 hours ago)



Hello Hitesh!

I have reviewed your code of claimRewards.ejs file and the chat functionality done by you. It seems good and the things are working properly.

However, I want to add some suggestions that it would be nice if we add navigation on a single page and then include it to the other pages where needed so everybody in the team can use it easily.

Secondly, If we add a chat module in a separate file so it can be used on multiple places where needed just by including it, otherwise in the current case we have to add the chat script again and again on the different pages where we need.

Fiaz Ashraf

Team-3

### *Hitesh's review on Mohsin's code:*

Hello Mohsin,

Thanks for your support in the project. I have checked the userAccount.js (controller) and userAccount.js (Model) and related pages to it. They look quite good and have very good structure to it. It is a component style functionality and removes redundancy.

Best Regards,

Hitesh Shridhar.

### *Shazeem's review on Kamal Chirrang's code:*



Shazeem Ashar <shazeem9@gmail.com>

to kamalSchhirang ▾

1:21 PM (0 minutes ago)



Hello Kamal chhirang,

I have reviewed your files. It works well on various browsers. It is readable and properly indented. In my opinion, the Javascript tags are also inside the HTML file, it would have been better if they were in a separate file.

Thank you,

Shazeem Ashar

### **Security checks on Best Practices:**

We are protecting the password of the users using hash functionality. The library we used for that is bcrypt. We have checked for the SQL Injection.

### **6) Self-check: Adherence to original Non-functional specs – performed by team leads:**

1. **Performance Requirements** • Any page of the website should not take more than 10 seconds to load. • The system may be throttled or slowed down on heavy loads to ensure service for everybody. By throttling we mean that certain functionality may be unavailable during heavy server load. • A buyer gets a result in 5-10 seconds after selecting features and preferences.

2. **Usability** • The user interface of the system should be very user-friendly. • It should not take more than 120 seconds for a new user to register for an account. • It should not take more than 90 seconds for a registered user to place an order.
3. **Scalability Requirements** • The system should be able to scale up to 500 concurrent users (if needed in the future) by installing additional hardware components.
4. **Reliability/Availability Requirements** • There is a need for the system to be online 24 hours a day, 7 days a week. There is no room for prolonged downtime, especially when the project goes international, and the traffic load will be regulated by time zones.
5. **Security Requirements** • The users' functions must be clearly specified. Administrator, Seller and Buyer are these roles. If they want to do more than just read / view website material, each person that goes to the system's website will be required to register. • A secure server is required to ensure that the credit card and other information of the customer remain confidential. • Passwords and user accounts must be correctly implemented due to the various roles. It should be difficult to gain access to the site in an illegal manner. • When a buyer types or inserts an incorrect username or password in the login page, the system displays an error message.
6. **Maintainability** • The system should be designed in such a way that improvements, whether for bug fixes or to implement new features, can be made easily. • The system should be convenient enough to ensure that someone else can do it with a manual and a few hours of training.
7. **Portability** • The system should be portable to various operating environments. • The system must be portable enough to be moved over to a new server with minimal downtime.
8. **Integrity** • The system should be able to protect and preserve transactions.
9. **Manageability** • The system should be developed in such a way that it can be easily reused, deployed and tested.