BAHÇEŞEHİR UNIVERSITY

FACULTY OF ENGINEERING AND NATURAL SCIENCES

Software Engineering

COP4461 Netaş Agile Project Management

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Ümmü Gülsüm Ergin: Scrum Master

Ümmü Gülsüm is an excellent fit for the Scrum Master role due to her soft skills and experience. Her clear communication keeps the team well-informed, and she exhibits strong leadership by prioritizing the team's needs. Her effective time management ensures that Scrum events and activities are conducted within their time-boxed constraints. With a deep understanding of Agile principles, she creates a collaborative and motivated team environment, building trust and promoting continuous improvement. Some of her responsibilities as a Scrum Master include:

- Ensuring that there is clear communication between the team, the Product Owner, and any other stakeholders.
- Conducting Scrum ceremonies such as Sprint Planning, Daily Standup, Sprint Review, and Sprint Retrospective.
- Helping the Scrum Team focus on creating high-value Increments that meet the Definition of Done.
- Protecting the team from outside distractions and interruptions.
- Ensuring that the team's progress is transparent to all stakeholders.
- Resolving impediments to ensure the Scrum team's progress.

Furkan Vural Okur: Product Owner

Furkan is the ideal choice for the Product Owner role because of his soft skills in decision-making, prioritization, and problem-solving. His ability to make timely, well-informed decisions keeps the team focused, while strategic prioritization aligns tasks with product goals. Furkan's adept problem-solving ensuring consistent delivery of products that meet customer expectations. Some of his responsibilities as a Product Owner include:

- Creating and prioritizing a product backlog that aligns with the product vision and goals.
- Ensuring that the product backlog items are clearly defined and well understood.
- Collaborating closely with cross-functional teams to ensure that the product meets customer needs and is delivered on time and within budget.
- Making tough decisions on what features to include in each sprint or release.
- Acting as the primary point of contact for all stakeholders on matters related to the product.

Sude Naz Öğdem: Developer

Sude Naz specializes in front-end development, focusing on creating engaging and user-friendly interfaces for the e-commerce website. She has a strong background in HTML, CSS, JavaScript, and C# ensuring a seamless and visually appealing user experience. Additionally, she has experience working with .NET Framework.

Selin Çeçen: Developer

Selin is a skilled full-stack developer with expertise in both front-end and back-end development. Proficient in HTML, CSS, JavaScript, and server-side programming languages, Selin excels in creating responsive and interactive web pages while also contributing to the implementation of server-side

logic. Her comprehensive skill set allows her to play a pivotal role in the development of the e-commerce website, ensuring a seamless and well-integrated user experience across the entire stack.

Turgay Kırıkkale: Developer

Turgay is a skilled front-end developer with a specialization in the ASP .NET Core framework, HTML, and CSS. His expertise encompasses the creation of dynamic and responsive user interfaces, leveraging his knowledge of .NET technologies and proficiency in C#. Turgay collaborates with the team to ensure a seamless integration of front-end components, utilizing HTML and CSS to enhance the visual aesthetics and user experience of the e-commerce website.

Alp Taşkıran: Developer

Alp is an experienced backend developer responsible for implementing server-side logic and ensuring the e-commerce website's functionality. His proficiency in server-side programming languages and database management ensures a robust and efficient back-end architecture.

Yiğit Efe Yılmaz: Developer

Yiğit specializes in software testing, ensuring the quality and reliability of the e-commerce website. He conducts thorough testing processes, identifying and addressing any issues or bugs to deliver a high-quality product to end-users. He also experienced with test automation for web applications using Selenium.

Yusuf İlham Çetinkaya: Developer

Yusuf is a UI/UX designer with a focus on creating visually appealing and user-centric designs. He collaborates with the development team to enhance the overall user experience, incorporating design principles and usability considerations.
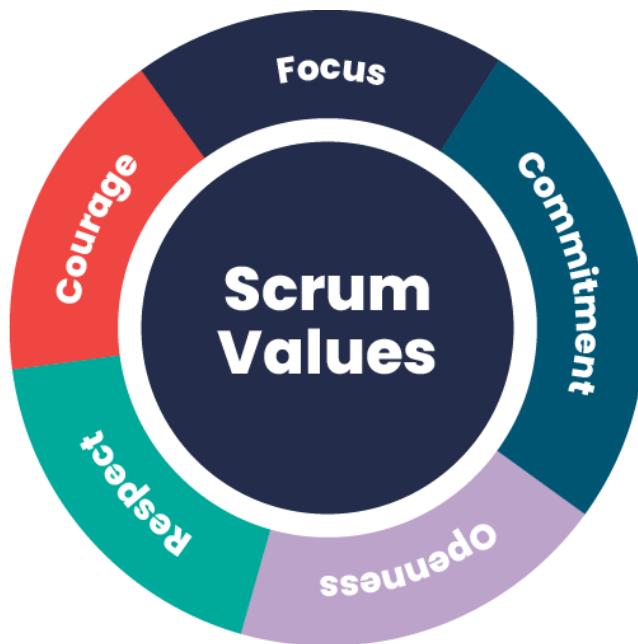
Within the dynamic landscape of agile , the power of the Scrum framework lies not only in its iterative structure and prescribed ceremonies, but also in the underlying values that foster high-performing teams. These values, encompassing courage, focus, commitment, respect, and openness, form the bedrock of successful collaboration and consistent value delivery.

Courage:

At the heart of Scrum lies the audacity to tackle complex challenges and confront uncertainties. Courage within a Scrum team manifests in various ways: honest communication of roadblocks, experimentation with innovative solutions, and open engagement with stakeholders on project hurdles. It necessitates vulnerability, a willingness to acknowledge limitations and embrace the iterative nature of progress. By venturing beyond the comfort zone and fostering an environment where honest risk-taking is encouraged, Scrum teams unlock the potential for groundbreaking advancements.

Focus:

Scrum demands a laser-sharp focus on the present, directing all energies towards achieving the sprint goal. This unwavering commitment necessitates individual accountability, where team members prioritize tasks according to their impact on the sprint objective. Distractions, both internal and external, must be identified and mitigated, allowing the team to move in unison towards delivering tangible value within the allotted timeframe. A laser-like focus ensures efficient sprint execution, preventing scope creep and maximizing team productivity.

Commitment:

Individual success pales in comparison to the collective triumph of a unified Scrum team. Commitment extends beyond the individual level, demanding unwavering dedication to the shared sprint goal and unwavering support for fellow team members. This manifests in collaborative problem-solving, knowledge sharing, and celebrating collective achievements. When each member commits not only to their own tasks but also to the team's success, a powerful synergy emerges, propelling the team forward with unwavering momentum.

Respect:

Effective Scrum teams thrive on a foundation of mutual respect. Recognizing the unique skills and perspectives each member brings to the table is paramount. This respect translates into active listening, constructive feedback, and a sense of trust that empowers individuals to take ownership and contribute creatively. A culture of inclusivity, where every voice is heard and valued, fosters a safe space for innovation and divergent thinking, ultimately leading to richer solutions and a more engaged team.

Openness:

Scrum operates on the principle of radical transparency. This necessitates open communication, clear visibility into progress, and a willingness to share both successes and challenges. Team members must be candid about roadblocks, openly discuss potential solutions, and embrace constructive criticism. Embracing transparency allows for rapid

course correction, facilitates adaptive decision-making, and builds trust among stakeholders. In a climate of openness, the team evolves as a single unit, continuously learning and adapting to overcome any obstacle.

In conclusion, the five core values of Scrum – courage, focus, commitment, respect, and openness – are not mere theoretical constructs, but the lifeblood of high-performing teams. By diligently cultivating these values, Scrum teams transcend the sum of their individual parts, transforming into cohesive units capable of delivering exceptional results in the ever-evolving world of agile .

REQUIREMENTS

There are many different functional and nonfunctional requirements for hardware on this website that we established.

First, we would like to ascertain the functional needs for the website. The following is an inventory of the primary functional requirements:

Users should be able to add new addresses and have their addresses saved in the database.

The names of hardware stores close to the user, pictures of their merchandise, and a remark box for each business ought to be included in the order sections on the main page.

Hardware products ought to be allowed to be added to carts by users.

The "my previous orders" page should allow users to view past orders.

Any hardware business can be clicked to bring up a unique screen with all of the various products and discounts offered by that particular store.

By leaving a message in the text field, customers ought to be able to contact the store with particular product requests or remarks.

Regarding any queries or remarks they send, customers ought to get a response or reply from the store.

 Users should be taken to a website featuring the menus and merchandise of a hardware store by clicking on its name or picture.

Customers who make purchases from hardware stores ought to rate and review them.

It should be possible for users to safely pay for their orders and store their card details for use on subsequent ones.

Users should be able to view the anticipated delivery time for each hardware store, with a +/-10 minute interval.

Until the order is delivered, users ought to be able to follow the delivery courier's whereabouts in real time.

The nonfunctional criteria for this website are as follows:

The maximum time for a user to log in is thirty seconds.

After five unsuccessful login attempts, access to the login page will be restricted by the hardware purchase website.

Every page has to load in three seconds or less.

On their first visit, users should have little trouble understanding the interface.

The website's feature ought to work with both iOS and Android operating systems.

Until the user creates a strong password, access should not be granted by the website.

WORK BREAKDOWN STRUCTURE

The main beginning of this project, "Hardware Shopping Website Creation Project", will be managed with WBS, a detailed business structure. Project management will include the steps of requirements analysis, planning, schedule, budget and resource planning.

While the project includes site design and development, graphic design, user interface (UI) development and user experience (UX) development steps, backend development will also include server installation, database installation, user management, product and stock management and payment transactions integration.

In the security and performance phase, elements such as SSL certificate installation, firewall and protection, speed and performance optimization will be discussed. Beta testing, user

testing and feedback collection will be carried out during the testing and quality control phase.

The deployment and launch phase will take care of getting the website live, user training, and creating a launch strategy. Marketing and advertising will include online marketing strategy, social media marketing and advertising campaigns.

In the results and recommendations section, the successes of the project, lessons learned, and future steps and improvements will be discussed. This structure will provide a framework that allows us to understand each phase of the project and ensure its successful completion.

nalbursepeti.com

1.Proje Yönetimi

1.1 Gereksinim Analizi
1.1.1 Kullanıcı Gereksinimleri Belirleme
1.1.2 İşlevsel Gereksinimler Belirleme
1.2 Proje Planlama
1.2.1 Zaman Çizelgesi Oluşturma
1.2.2 Bütçe Tahmini
1.2.3 Kaynak Planlaması

2.Site Tasarımı ve Geliştirme

2.1 Grafik Tasarım
2.1.1 Ana Sayfa Tasarımı
2.1.2 Kategori ve Ürün Sayfası Tasarımı
2.2 Kullanıcı Arayüzü (UI) Geliştirme
2.2.1 Sayfa Yapısı Oluşturma
2.2.2 Navigasyon Tasarımı
2.3 Kullanıcı Deneyimi (UX) Geliştirme
2.3.1 Alışveriş Sepeti İşlemleri
2.3.2 Kullanıcı Hesap Yönetimi

3.Backend Ve Veri Tabanı Geliştirme

3.1 Sunucu Kurulumu
3.1.1 Hosting Hizmeti Seçimi
3.1.2 Sunucu Altyapısı Oluşturma
3.2 Veritabanı Kurulumu
3.2.1 Veritabanı Tasarımı ve Oluşturma
3.2.2 Veri İlişkileri ve Normalizasyon
3.3 Kullanıcı Yönetimi
3.3.1 Kullanıcı Girişi ve Kaydı
3.3.2 Şifre Güvenliği
3.4 Ürün ve Stok Yönetimi
3.4.1 Ürün Ekleme ve Güncelleme
3.4.2 Stok Takibi
3.5 Ödeme İşlemleri Entegrasyonu
3.5.1 Güvenli Ödeme Sistemleri

4.Güvenlik ve Performans

4.1 SSL Sertifikası Kurulumu
4.2 Güvenlik Duvarı ve Koruma
4.3 Hız ve Performans Optimizasyonu

5.Test ve Kalite Kontrol

5.1 Beta Testi
5.1.1 Kullanıcı Testleri
5.1.2 Geri Bildirim Toplama
5.2 Hata Düzeltme ve Güncelleme
5.2.1 İyileştirmeler ve Değişiklikler

6.Dağıtım ve Lansman

6.1 Web Sitesi Yayına Alma
6.2 Kullanıcı Eğitimi
6.3 Lansman Stratejisi Oluşturma

7.Pazarlama ve Reklam

7.1 Online Pazarlama Stratejisi
7.2 Sosyal Medya Pazarlaması
7.3 Reklam Kampanyaları

Time Estimation and Sprint Planning:

As a Scrum Master for the Nalbur E-Ticaret Project (nalbursepeti.com), I will utilize the T-Shirt Sizes method for time estimation and sprint planning. The user stories have been categorized into different aspects of the project, including Frontend/UI and UX, Backend/Integrity, Backend/Legal, and Backend/Database. Each user story is assigned a T-shirt size to estimate the effort required for its completion.

Since we are using T-Shirt Sizes, the sizes are represented as follows:

- **XS** (Extra Small) = 1 point
- **S** (Small) = 3 points
- **M** (Medium) = 5 points
- **L** (Large) = 8 points
- **XL** (Extra Large) = 13 points

The initial planning involves distributing the user stories based on their estimated points, and then planning the sprints accordingly.

Frontend/UI & UX:

- Displaying login and register page (M) = 5 points
- Searching products with filter options (L) = 8 points
- Showing photos of products from nearby hardware stores (XL) = 13 points
- Viewing user comments (S) = 3 points
- Adding a product to cart (S) = 3 points
- Order status (M) = 5 points
- Showing previous orders (S) = 3 points
- Writing a product review (S) = 3 points
- Displaying and updating account info (M) = 5 points

Total: 48 points

Backend/Integration:

- Integration with front-end of website (XL) = 13 points

Total: 13 points

Backend/Security:

- Providing user passwords are securely stored to protect user accounts from unauthorized access (XL) = 13 points

Total: 13 points

Backend/Database:

- Creating tables (M) = 5 points
- Reading tables (M) = 5 points
- Updating tables (M) = 5 points
- Deleting tables (M) = 5 points

Total: 20 points

Overall Total: 94

Sprint 1

Sprint 1 Goal: Displaying login and register pages, showcasing photos of products from nearby hardware stores, and efficiently creating and managing tables.

- Displaying login and register page (M) = 5 points
- Showing photos of products from nearby hardware stores (XL) = 13 points
- Creating tables (M) = 5 points

Velocity: 23 (Note: Adjusted the velocity to ensure a manageable workload for the first sprint)

Sprint 2

Sprint 2 Goal: Enabling reading, updating, and deleting tables, facilitating user-friendly product searches with filter options, and streamlining the process of adding products to the cart.

- Reading tables (M) = 5 points
- Updating tables (M) = 5 points
- Deleting tables (M) = 5 points
- Searching prducts with filter options (L) = 8 points
- Adding a product to cart (S) = 3 points

Velocity: 26

Sprint 3

Sprint 3 Goal: Fortifing the security infrastructure by securely storing user passwords, and to enhance user experience by implementing features for viewing comments, checking order status, and displaying previous orders.

- Providing user passwords are securely stored to protect user accounts from unauthorized access (XL) = 13 points
- Viewing user comments (S) = 3 points
- Order status (M) = 5 points
- Showing previous orders (S) = 3 points

Sprint 4

Sprint 4 Goal: Improving user engagement, interaction by enabling customers to write product reviews, providing a seamless display and update of account information, and achieving a robust integration with the front-end of the website.

- Writing a product review (S) = 3 points
- Displaying and updating account info (M) = 5 points
- Integration with front-end of website (XL) = 13 points

Total Sprint Duration: 4 Sprint * 2 Weeks = 8 Weeks

Note: The velocity will be adjusted according to the team's capacity and performance. Additionally, the team's progress in each sprint will be monitored and the plan adapted as necessary.

KICK-OFF

OFFICIAL MEETING PROGRAMS

I. İntroduction

Greetings to all, as we begin the exciting job of building the nalbursepeti.com website. Let's take a time to have a brief introduction of each team member, along with a discussion of their expectations and duties in the project.

II. Overview of the Project

Today we will be concentrating on the nalbursepeti.com website. To make sure our efforts are in line, we'll examine the website's vision, mission, and goals as well as its objectives.

III. Project Scheduling

Together, let's establish the foundation for our development journey by drafting an extensive plan complete with milestones, use Agile approaches to prioritize activities, and assembling the first iteration of the product backlog. We will also delineate roles and duties inside the Scrum team.

IV. Budgeting and Resource Allocation

We'll go over and talk about the resources that were allotted to our project. To guarantee efficient resource use, we'll also establish the budget's necessary limits, exclusions, and limitations.

V. Evaluation and Mitigation of Risks

Here, we are concentrating on identifying the risks that could impact our project and coming up with countermeasures. We'll also set up procedures for dealing with unforeseen difficulties that can cause our project's timeframe to get longer.

VI. Involvement of Stakeholders

It is essential to identify the important parties affected or involved in our project. To guarantee a successful partnership, let's talk about engagement techniques and effective communication tactics.

VII. Time-Stamping

We will choose particular items from the product backlog to work on during our first sprint of development. We'll work together to establish sprint objectives and task lists for effective advancement.

VIII. Following Actions

We'll go over the key takeaways and personal accountability that come from today's conversations as we wrap up. To keep up our pace, we'll also set the date for our upcoming meeting and the sprint reviews that we do on a regular basis.

IX. Open Discussion and Q&A

Let's take a moment to welcome any queries, ideas, or recommendations that team members may have before we close. As we proceed, it's critical that everyone feels heard and understood

[Trello Link](#)

<mark>REGULAR MEETINGS</mark>

We start each day with 15-minute meetings to ensure coordination within the team and for team members to follow the progress of other members during the sprint process. In these meetings, problems are not discussed in detail, under the guidance of Ümmü, our scrum master, each member shares their progress and talks about what they did yesterday and what they plan to do today. After our Scrum master Ümmü starts the meeting by sharing the requests and suggestions from the higher units, she asks the following questions in turn:

- Which tasks did you complete yesterday?

- What are we going to do today?

- Have you faced any obstacles and do you need support for this obstacle?

Turgay shared with the team that they started the elaboration of the filtering headings, which is a 5-point scale according to the requests from Furkan, the project owner, and that the developers he works with simultaneously will continue to open the sub-headings today. When asked if they faced any obstacles, they said that there were no obstacles.

Then Ediz, our system analyst, said that yesterday he and Alp, another analyst, started analyzing products based on user comments. He said that they will continue this analysis today, adding that they received an error while reviewing old feedback and may need the support of developers. Then Sude, our developer, said that she completed the task of highlighting nearby building material markets based on location information yesterday and that she could support Ediz and Alp with the error she received. Yiğit conveyed to our scrum master that a new category could be added for our mobile application, but since there was a possibility that we might have a small problem in completing the sprint, we were given feedback that we could discuss this issue again in the next sprints. Selin told us that yesterday she had a problem with the filter search task due to a bug and therefore could not complete the task. Today she asked for our help to debug it together. Yusuf said he could help her.

Finally, scrum master Ümmü informed us that we need to increase our current speed or we will not be able to complete this sprint on time. She will also have a meeting with our product owner Furkan today and give him detailed briefing about the sprint. Then she asked, "Is there anything else you want to ask or share with other members?" Since no one took the floor, we ended today's meeting.

Our daily meeting lasted exactly 15 minutes and the whole team shared their current progress. Ümmü, our scrum master about the identified obstacles, ended the meeting by saying that she would plan a meeting with the relevant people after the meeting.

RETROSPECTIVE

I. Overview

Salutations, group! It gives me great pleasure to call our retrospective meeting for the nalbursepeti.com website project, where we will evaluate our development and make improvements plans.

II. Summarizing the Sprint

Let's celebrate our triumphs and lessons learned by taking a minute to reflect on and highlight the key moments and accomplishments from this sprint.

III. Introspection

A. Positive Outcomes (10 MIN)

The implementation of paired coding sessions resulted in a notable increase in productivity and collaboration, cultivating a creative team atmosphere.

Our improvements to the user testing process significantly improved the overall caliber of our products, which is consistent with our sprint goal of excellence.

Positive team dynamics and a common enthusiasm made for a lively and fun work environment that fostered creativity and togetherness.

B. Things That Didn't Go Right (10 MIN)

The difficulties arising from ambiguous duties assigned to team members brought to light areas in our process that require prompt clarification and attention.

The need for a more streamlined and transparent approach arose from the uncertainty surrounding priorities, which made it difficult to handle tasks effectively.

C. Things We Can Do Better (10 MIN)

Stressing the importance of timeliness can improve our ability to communicate and make decisions by making sure that each person's important ideas are respected and taken into account.

By streamlining our roles and duties, we may reduce redundancy and ensure more effective job allocation, leading to improved results.

IV. Takeaways

A. 10-Minute Action Plan

Giving each team member a defined set of tasks will guarantee responsibility and promote a more unified and well-organized workflow.

To improve task management and make sure that everyone's efforts are in line with the project's goals, a more defined mechanism for assigning priorities should be established.

By putting policies in place to promote attendance and timeliness, we may improve teamwork and decision-making effectiveness.

B. Process of Making Decisions for Enhancements (5 MIN)

Collective ownership and commitment can be ensured by debating and unanimously deciding on the decision-making process for putting improvements into practice.

It will be easier to carry out and monitor these enhancements if a responsible person or team is assigned to supervise their implementation.

V. Concluding

A. Steps to Take Next (5 MIN)

We will stay accountable and in sync if we summarize the takeaways and assigned duties from this reflection.

Maintaining our enthusiasm and success will require setting up a timeframe for putting suggested improvements into practice and setting up follow-up conversations.

B. Open Discussion and Feedback (5 MIN)

By keeping the floor open to any more comments or ideas from our team members, we can guarantee inclusion and provide a setting for ongoing development.