



# **Çevik Yöntemler: GENEL HATLAR**

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# Çevik Yöntemler / Scrum

- Scrum yaklaşımı Jeff Sutherland ve ekibi tarafından 1990 başlarında ortaya konulmuş; daha sonra Schwaber ve Beedle tarafından geliştirilmiştir (Pressman, 2005).
- Tam bir süreç veya metodoloji olmaktan ziyade bir çerçevedir .
- Scrum, ideal olarak, hızla değişen veya oldukça acil talep ve ihtiyaçların olduğu projeler için uygundur.
- Bundan ötürü projedeki herşeyin tam ve detaylı bir şekilde tanımlarını sağlamak yerine daha ziyade bunu yazılım geliştirme ekibine bırakır ( Mountaingoatsoftware, 2012).

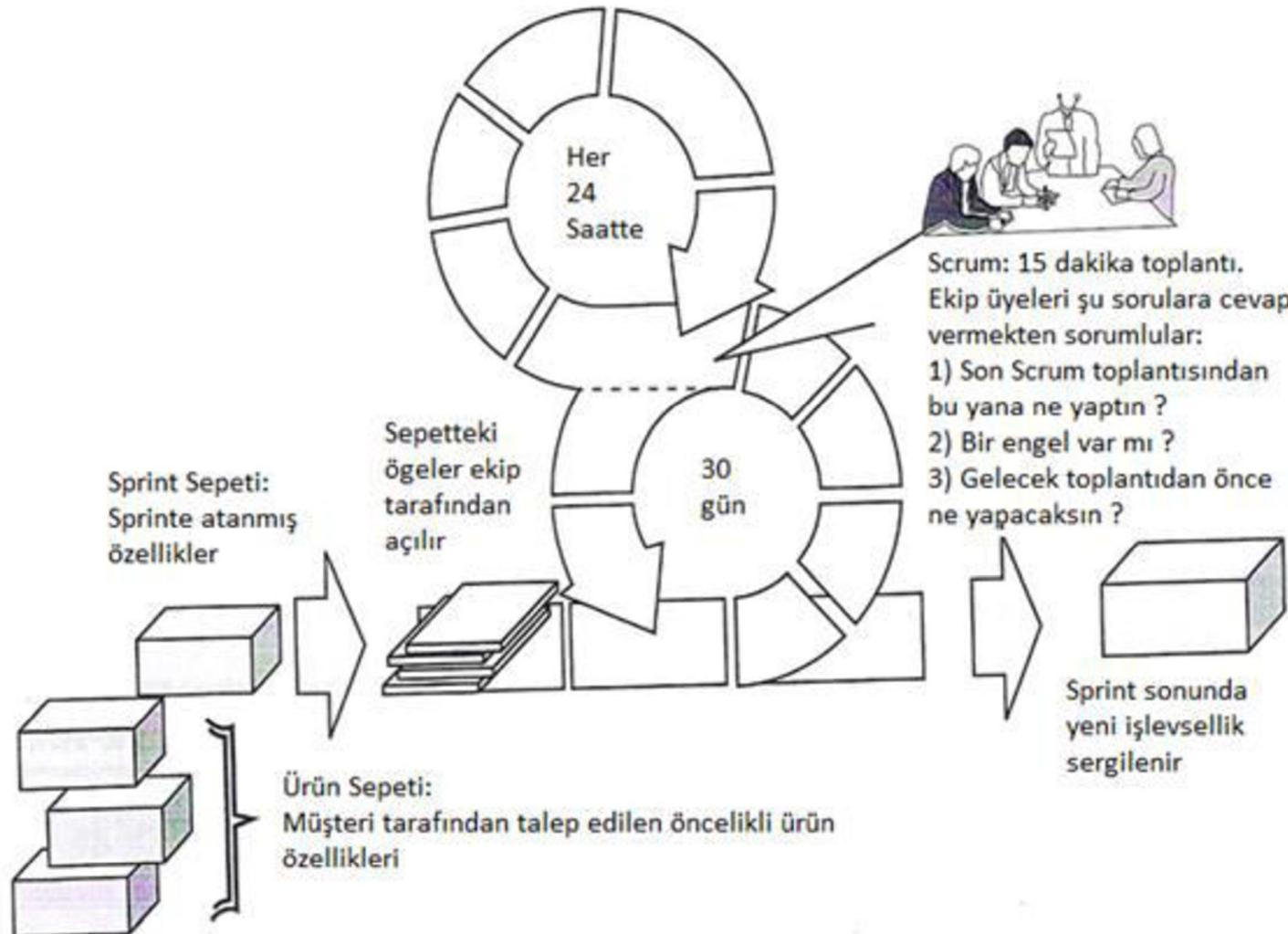


# Çevik Yöntemler / Scrum

- Scrum projesinde talep ve ihtiyaçlar, analiz, tasarım, **evrilme** ve teslimat vardır. İş parçaları çerçevedeki her faaliyet içinde sprint denen bir süreç döneminde ortaya çıkar (Pressman, 2005).

# Çevik Yöntemler / Scrum

- Scrum süreci ((Pressman, 2005))





# Çevik Yöntemler / Scrum

- Sprint
  - Seri bir takım yinelemeler.
  - Her sprint tipik olarak 2-4 hafta kadardır.
  - Ayrıca her gün 15 dakika ayaküstü değerlendirme toplantısı yapılır (Cohn, 2012.; Wysocki, 2009; Pressman, 2005).
  - Sprint başında hangi işlevin tamamlanacağı, taleplerin bulunduğu (backlog ) “bekleyen” sepetinden alınır; bu seçimde talep sahibi de rol oynar.
  - Proje bazında da sprint bazında da bekleyen talepler (feature, stories backlog) sepeti vardır.



# Çevik Yöntemler / Scrum

- Sprint
  - Scrum sprintinin sonunda bu özellikler sağlanır – kodlanır, test edilir bir ürün veya sistem oluşturmaya doğru ilerler.
  - Her sprint tamamlandığında işlevler ürün (talep) sahibine sunulur.
  - Scrum sprintinin sonunda ekip, yeni işlevleri ürün sahibine ve diğer ilgili taraflara sergilediği sırada bir gözden geçirme yapılır; bu bir sonraki sprinti etkileyebilecek geri bildirim sağlar (Cohn, 2012; Wysocki, 2009; Pressman, 2005).



# Çevik Yöntemler / Scrum

- Scrum Master
  - Ekibin koçu olarak düşünülebilir; ekip üyelerinin Scrum çerçevesini en üst düzeyde ifa etmesine yardım eder.
- Ürün Sahibi
  - Müşterileri veya kullanıcıları temsil eder ve doğru ürünü inşa etmesi yolunda ekibe kılavuzluk eder (Cohn, 2012; Wysocki, 2009, Pressman, 2005).

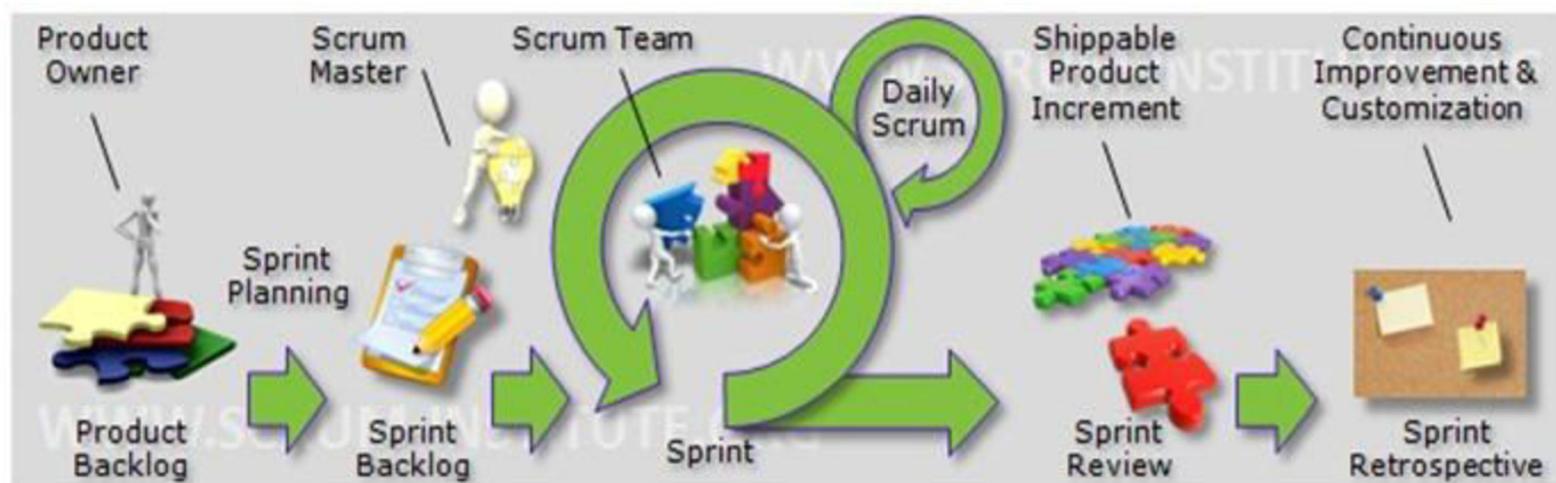


# Çevik Yöntemler / Scrum

- Scrum ekibi
  - Kimin hangi işi yapacağını veya hangi sorunun nasıl çözüleceğini kararlaştıran bir ekip liderinin olmadığı kendi kendine örgütlenmiş çapraz işlevsel bir ekiptir. **Bu konular ekibin** tümü tarafından karara bağlanır (Mountaingoatsoftware, 2012). Bütün yinelemeli yaklaşımlar içinde Scrum kaotik bir geliştirme ortamını tanımlamaktadır (Wysocki, 2009).

# Çevik Yöntemler / Scrum

- **What is Scrum?**
- Scrum is a lightweight agile project management framework mainly used for software development. It describes an iterative and incremental approach for project work.





# Çevik Yöntemler / Scrum

- **Overview of Scrum Framework**
- Scrum can be used in all kinds of software development: for developing complete software packages, for developing only some parts of bigger systems, for customer or internal projects.
- The Scrum Framework implements the cornerstones defined by the agile manifesto:
  - Individuals and interactions over processes and tools
  - Working software over comprehensive documentation
  - Customer collaboration over contract negotiation
  - Responding to change over following a plan



# Çevik Yöntemler / Scrum

- **Overview of Scrum Framework**
- The Scrum Framework itself is very simple. It defines only some general guidelines with only a few rules, roles, artifacts and events. Nevertheless each of these components is important, serves a specific purpose and is essential for a successful usage of the framework.
- The main components of Scrum Framework are:
  - The three roles: Scrum Master, Scrum Product Owner and the Scrum Team
  - A prioritized Backlog containing the end user requirements
  - Sprints
  - Scrum Events: Sprint Planning Meeting (WHAT-Meeting, HOW-Meeting), Daily Scrum Meeting, Sprint Review Meeting, Sprint Retrospective Meeting



# Çevik Yöntemler / Scrum

- **Overview of Scrum Framework**
  - **Important in all Scrum projects are** self-organization and communication within the team. There is no longer a project manager in a classical sense. In the Scrum Framework the Scrum Master and the Scrum Product Owner share his responsibilities. However, in the end the team decides what and how much they can do in a given project iteration (Sprint).
  - Another central aspect within the Scrum Framework is continuous improvement: inspect & adapt. The Scrum Teams have to frequently inspect and assess their created artifacts and processes in order to adapt and optimize them. In the midterm this will optimize the results, increases predictably and therefore minimize overall project risk.

# Çevik Yöntemler / Scrum

- **Overview of Scrum Framework**

- The Scrum Framework tries to deal with the fact that the requirements are likely to change quickly or are not completely known at the start of the project. The low-level requirements are only defined at the time when they are going to be really implemented.

In Scrum, changes and optimizations of product, requirements and processes are an integral part of the whole engineering cycle.

- Another cornerstone of the Scrum Framework is communication. The Scrum Product Owner works closely with the Scrum Team to identify and prioritize functionality. This functionality is written down in user stories and stored in a Scrum Product Backlog. The Product Backlog consists everything that needs to be done in order to successfully deliver a working software system.



# Çevik Yöntemler / Scrum

- **Overview of Scrum Framework**
- The Scrum Team is empowered to only select the user stories they are sure they can finish within the 2-4 weeks of Sprints.
- As the Scrum Team is allowed to commit their own goals **they will be more motivated and work with best possible performance**.
- The Scrum Master **is another important role in the Scrum Framework as it** works as a servant-master with the Scrum Team.



# Çevik Yöntemler / Scrum

- **Overview of Scrum Framework**
- His/her main tasks are to make the Scrum team understand how Scrum operates, to protect the Scrum Team from external interruptions and to remove impediments that hinder the Scrum Team to reach its maximum productivity.
- The Scrum Framework in its simple form is best used for smaller, one-team projects. But with the introduction of additional roles like the "Chief Scrum Product Owner" it is also usable in bigger multi-teams and/or distributed-team projects.



# Çevik Yöntemler / Scrum

- **Scrum Roles**
- Within the Scrum Framework three roles are defined:
  - The Scrum Team
  - Scrum Master
  - Scrum Product Owner
- Each of these roles has a defined set of responsibilities and only if they fulfill these responsibilities, closely interact and work together they can finish a project successfully.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Team**
- Within the Scrum Framework all work delivered to the customer is done by dedicated Scrum Teams. A Scrum Team is a collection of individuals working together to deliver the requested and committed product increments.
- To work effectively it is important for a Scrum Team that everyone within the team
  - follows a common goal
  - adheres the same norms and rules
  - shows respect to each other



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Team**
- When setting up a new Scrum Team one always has to keep in mind that no new team will deliver with the highest possible performance right from the beginning. After setting up the team it has to go through certain phases as described by the Tuckman-Model: Forming, Storming, Norming, Performing.
- How long it takes until the Scrum Team is in the Performing Phase depends on the team, and yet it normally takes about 3 Sprints until the teams is mature enough to deliver their results in a predictable way.



# **Çevik Yöntemler / Scrum**

- **Scrum Roles / The Scrum Team**
- **Characteristics of a Scrum Team**
- Scrum Teams always have the following characteristics:
  - Team members share the same norms and rules
  - The Scrum team as a whole is accountable for the delivery
  - The Scrum Team is empowered
  - It is working as autonomous as it is possible
  - The Scrum Team is self organizing
  - The skills within the Scrum team are balanced
  - A Scrum Team is small and has no sub-teams
  - The people within the Scrum Team work full time in the team
  - People are collocated

# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Team**
- **Rules & Norms**
- Of course their environment defines some of the norms the teams have to follow, but some rules and norms are developed during the Norming phase. This set of common rules is quite important.

Otherwise the team members would have to constantly waste valuable time to switch between different value systems and rule sets.

Examples for such norms and rules are:

- time and location of the Daily Scrum Meeting
- the Definition Of Done (DoD) used to decide if work is finished or not
- coding guidelines
- tools to use
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# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Team**
- **Accountability**
- The Scrum Team as a whole is responsible to deliver the committed delivery in time and with the defined quality. A good result or a failure is never attributed to a single team member but always the result of the Scrum Team.



# **Çevik Yöntemler / Scrum**

- **Scrum Roles / The Scrum Team**
- **Empowerment & Self organization**
- The Scrum Team has to be empowered to define
  - what it will commit to deliver at the end of the sprint
  - how the expected results have to be broken down into tasks
  - who will perform the task and in which order they are performed
- Only if the Scrum Team is empowered to decide these things it will work with the highest possible motivation and performance.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Team**
- **Balanced set of skill**
- Individuals within the Scrum Team will most certainly have specialized skills and focus. However to achieve best possible performance it would be optimal to have a balanced set of skills. Only then the Scrum Team will be able to deal with the ever-changing challenges and can act as autonomous as it is possible.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Team**
- **Balanced set of skill**
- On one hand this means that a Scrum Team should be multidisciplinary (developers, tester, architects etc) right from the beginning. On the other hand this also means that each team member should learn a little bit of each other's specialization, e.g. a developer should also perform or write tests.
- As a consequence this also means that within the Scrum Framework it is not differentiated between e.g. "tester" and "architect", they all share the same title "Scrum Team Member" even if the primary skill is not to develop production code.

# Çevik Yöntemler / Scrum

- **Scrum Roles**
- **The Scrum Team**
- **Size of the Scrum Team**
- Scrum Teams are small. The ideal size is 7 +/- 2 people.
- If there are more people the communication overhead gets too large and the team should be split into multiple Scrum Teams. These Scrum Teams should be coordinated and communicate with each other but otherwise work independently.
- **Collocation**
- To minimize unnecessary communication overhead each Scrum Team should be collocated. If work has to be spread over multiple locations, independent Scrum Teams should be created.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Team**
- **Responsibilities of the Scrum Team**
- The Scrum Team and each of the team members has certain responsibilities which have to be fulfilled:
  - They have to breakdown the requirements, create task, estimate and distribute them. In other words this means that they have to create the Sprint Backlog.
  - They have to perform the short Daily Sprint Meeting.
  - They have to ensure that at the end of the Sprint potentially shippable functionality is delivered.
  - They have to update the status and the remaining efforts for their tasks to allow creation of a Sprint Burndown Diagram.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Master**
- Broad speaking it is the job of the Scrum Master to ensure that the Scrum Team adheres to the Scrum theory, practices and rules.
- The Scrum Master is part of the Scrum Team and acts as a servant-leader for the Scrum Team. In the beginning this will be a full-time job so that the Scrum Master will not be able to directly contribute to the Sprint results. However after some Sprints the processes will settle so that the workload for the Scrum Master will drop and he could actively contribute to the Sprint Goal.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Master**
- Since it is crucial that there is trust between the Scrum Master and the other team members it would be ideal if the Scrum Team selects the Scrum Master itself. However, in reality most often the Management selects the Scrum Master. To get the required trust the Scrum Master should have no line-management responsibility for one of the team members. Otherwise the necessary open communication and decision finding will be hampered.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Master**
- **Responsibilities of the Scrum Master**
- The Scrum Master has several important responsibilities:
  - Guard the Scrum Team from external requests and disruptions
  - Act as a change agent and adapt processes to maximize productivity of the team
  - Coach the Scrum Team
  - Remove impediments for the Scrum Team
  - Ensure efficient communication between the Scrum Team and the Scrum Product Owner
  - Facilitate the various Scrum Events



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Master**
- **Responsibilities of the Scrum Master**
- In order to effectively do this, a number of skills are helpful:
  - Moderation
  - Coaching
  - Development know-how



# **Çevik Yöntemler / Scrum**

- **Scrum Roles / The Scrum Master**
- **Responsibilities of the Scrum Master**
- **Guarding the Scrum Team / Removing impediments**
- An important job of the Scrum Master is to guard the team members from "urgent requests". Line-Management or the Scrum Product Owner will often try to assign new, unplanned and not committed requests to the team or individual team members. However one of the key aspects of Scrum is that all deliverables and work-packages are known and committed by the Scrum Team before the Sprint and that the Scrum Team can work 100% on these deliverables.



# **Çevik Yöntemler / Scrum**

- **Scrum Roles / The Scrum Master**
- **Responsibilities of the Scrum Master**
- **Guarding the Scrum Team / Removing impediments**
- The job of the Scrum Master is to discuss such requests and to either postpone the request until the next sprint starts or to cancel the current sprint and start-over.
- The developers within the Scrum Team should only concentrate on developing customer value by delivering potentially shippable functionality. The Scrum Master helps by removing impediments that block or hinder development. Examples could be organizing meetings, clarifying questions or performing supporting work.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Master**
- **Responsibilities of the Scrum Master**
- **Change agent**
- One of the cornerstones of the Scrum Framework is continuously improvement through inspect & adapt. The Scrum Master hosts and moderates the Scrum Retrospective Meeting and his job is then to facilitate the change of the identified shortcomings.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Product Owner**
- The Scrum Product Owner is a central role within the Scrum Framework. Most of the responsibilities of the classical product manager and the project manager are combined within this single role.
- He represents the end customer and/or other stakeholders and is responsible for maximizing the value of the product by ensuring that the right work is done at the right time.
- As a consequence this means of course that the Scrum Product Owner has to work very closely with the Scrum Team and coordinates their activities over the whole lifetime of the project. No one else is allowed to tell the development team to work from a different set of priorities.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Product Owner**
- The Scrum Product Owner's responsibilities:
  - Managing the Scrum Product Backlog
    - The Scrum Product Owner is the only person allowed to manage the contents of the Scrum Product Backlog. This means he has to:
    - Create, maintain and clearly describe the Scrum Product Backlog items
    - Prioritize the items to best achieve goals and mission
    - Ensuring that the Scrum Team understands the items in the Scrum Product Backlog



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Product Owner**
- The Scrum Product Owner's responsibilities:
  - Release Management
    - The Scrum Product Owner is responsible for reaching the project goals. He creates and maintains the release plan and decides about deliveries, functionalities and therefore about the costs of a project.
    - He manages the Scrum Team by creation and prioritization of appropriate Scrum Backlog items.
  - Stakeholder Management
    - External stakeholder should not communicate directly with the Scrum Team. Instead the Scrum Product Owner should collect and discuss required functionalities with the different Stakeholders (e.g. customer, marketing, service etc). These requirements are then combined and filtered before giving it to the team in the form of prioritized Scrum Product Backlog Items.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Product Owner**
- The Scrum Product Owner's responsibilities:
  - Work closely with the Scrum Team
    - For a successful project it is important that the Scrum Product Owner and the Scrum Team work together very closely. He is responsible that everyone in the Scrum Team understands what is required.
  - The Scrum Product Owner is also responsible for checking and accepting the Sprint results during the Sprint review session.



# Çevik Yöntemler / Scrum

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# Çevik Yöntemler / Scrum

- **The Scrum Product Backlog**
- The Scrum Product Backlog is simply a list of all things that needs to be done within the project.
- It replaces the traditional requirements specification artifacts.
- These items can have a technical nature or can be user-centric e.g. in the form of user stories.
- The owner of the Scrum Product Backlog is the Scrum Product Owner.
- The Scrum Master, the Scrum Team and other Stakeholders contribute it to have a broad and complete To-Do list.



# Çevik Yöntemler / Scrum

- **The Scrum Product Backlog**
- Working with a Scrum Product Backlog does not mean that the Scrum Team is not allowed to create and use other artifacts.
- Examples for additional artifacts could be a summary of the various user roles, workflow descriptions, user interface guidelines, storyboards, or user interface prototypes.
- However, these artifacts do not replace the Scrum Product Backlog but complement and detail its content.
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# Çevik Yöntemler / Scrum

- **The Scrum Product Backlog**
- The Scrum Product Owner uses the Scrum Product Backlog during the Sprint Planning Meeting to describe the top entries to the team.
- The Scrum Team then determines which items they can complete during the coming sprint.



# Çevik Yöntemler / Scrum

- **The Scrum Product Backlog**
- Backlog has certain properties that differentiate it from a simple to-do list:
  - an entry in the Scrum Product Backlog always add value for the customer.
  - the entries in the Scrum Product Backlog are prioritized and ordered accordingly.
  - the level of detail depends on the position of the entry within the Scrum Product Backlog.
  - all entries are estimated.
  - the Scrum Product Backlog is a living document.
  - there are no action-items or low-level tasks in the Scrum Product Backlog.

# Çevik Yöntemler / Scrum

- **The Scrum Product Backlog**

## To Do List

ID	Story	Estimation	Priority
7	As an unauthorized User I want to create a new account	3	1
1	As an unauthorized User I want to login	1	2
10	As an authorized User I want to logout	1	3
9	Create script to purge database	1	4
2	As an authorized User I want to see the list of items so that I can select one	2	5
4	As an authorized User I want to add a new item so that it appears in the list	5	6
3	As an authorized User I want to delete the selected item	2	7
5	As an authorized User I want to edit the selected item	5	8
6	As an authorized User I want to set a reminder for a selected item so that I am reminded when item is due	8	9
8	As an administrator I want to see the list of accounts on login	2	10
<b>Total</b>		<b>30</b>	



# Çevik Yöntemler / Scrum

- **The Scrum Product Backlog**
- **Only entries that add value:**
- Each entry in the Scrum Product Backlog must have some kind of customer value.
- The Scrum Product Backlog can include
  - entries for the exploration of customer needs or various technical options,
  - a description of both functional and nonfunctional requirements,
  - the work necessary to launch the product, and
  - other items as well, such as setting up the environment or remediating defects.
- Some tasks may not add direct value to the functionality. Nevertheless they might add value by increasing quality or reducing incidents in the long term.



# Çevik Yöntemler / Scrum

- **Scrum Roles / The Scrum Product Owner**
- The Scrum Product Owner's responsibilities:
- **The Scrum Product Backlog**
- **Living document**
- The Scrum Product Backlog is changed throughout the whole project. If needed, new requirements are added and existing requirements may be modified, defined in more detail or even deleted. Requirements are no longer frozen early on. Instead the final set of requirements within the Scrum Product Backlog is also developed iteratively, together with the resulting software. This is different to traditional requirements engineering but allows maximizing customer value and minimizes development effort.



# Çevik Yöntemler / Scrum

- **The Scrum Product Backlog**
- **Different level of details:**
- The requirements in the Scrum Product Backlog have a different granularity.
- Only those requirements that shall be implemented during one of the next sprints are defined in greater detail and everything else is more coarse-grained.
- The simple reason for this is that it does not make sense to invest time and effort into the specification of these requirements, as most of these requirements will have changed anyway until implementation starts.

# Çevik Yöntemler / Scrum

- **The Scrum Product Backlog**
- **No low-level tasks:**
- The Scrum Product Backlog shall not contain the detailed requirement information.
- Ideally the final requirements are defined together with the customer during the sprint.
- Breakdown and distribution of these requirements is the responsibility of the Scrum Team.



# Çevik Yöntemler / Scrum

- **The Scrum Product Backlog**
- **The Scrum Product Backlog is ordered:**
- All entries are prioritized and the Scrum Product Backlog is ordered.
- The Scrum Product Owner with the help of the Scrum Team does the prioritization.
- **Added Value, Costs and Risks** are the most common factors for prioritization.
- With this prioritization the Scrum Product Owner decides what should be done next.



# Çevik Yöntemler / Scrum

- **The Scrum Product Backlog**
- **All entries are estimated:**
- All the entries within the Scrum Product Backlog have to be estimated according to the agreed definition (e.g. story points).
- This estimation can then be used to prioritize entries in the Scrum Product Backlog and to plan releases.
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# Çevik Yöntemler / Scrum

- **Working with the Backlog**
- The backlog needs regular attention and care - it needs to be managed carefully. At the start of the project the Scrum Team and its Scrum Product Owner start by writing down everything they can think of easily. This is almost always more than enough for a first sprint.



# Çevik Yöntemler / Scrum

- **Working with the Backlog**
- After this initial setup, the Scrum Product Backlog has to be maintained in an ongoing process that comprises the following steps:
  - As new items are discovered they are described and added to the list. Existing ones are changed or removed as appropriate.
  - Ordering the Scrum Product Backlog. The most important items are moved to the top.
  - Preparing the high-priority entries for the next Sprint Planning Meeting
  - (Re-)Estimating the entries in the Scrum Product Backlog



# Çevik Yöntemler / Scrum

- **Working with the Backlog**
- The Scrum Product Owner is responsible for making sure that the Scrum Product Backlog is in good shape.
- When using the Scrum Framework about 10% of the Scrum Teams total time should be reserved for maintaining the Scrum Product Backlog (discussion, estimation etc.).
- The collaborative maintenance of the Scrum Product Backlog helps to clarify the requirements and creates a buy-in from the Scrum Team.

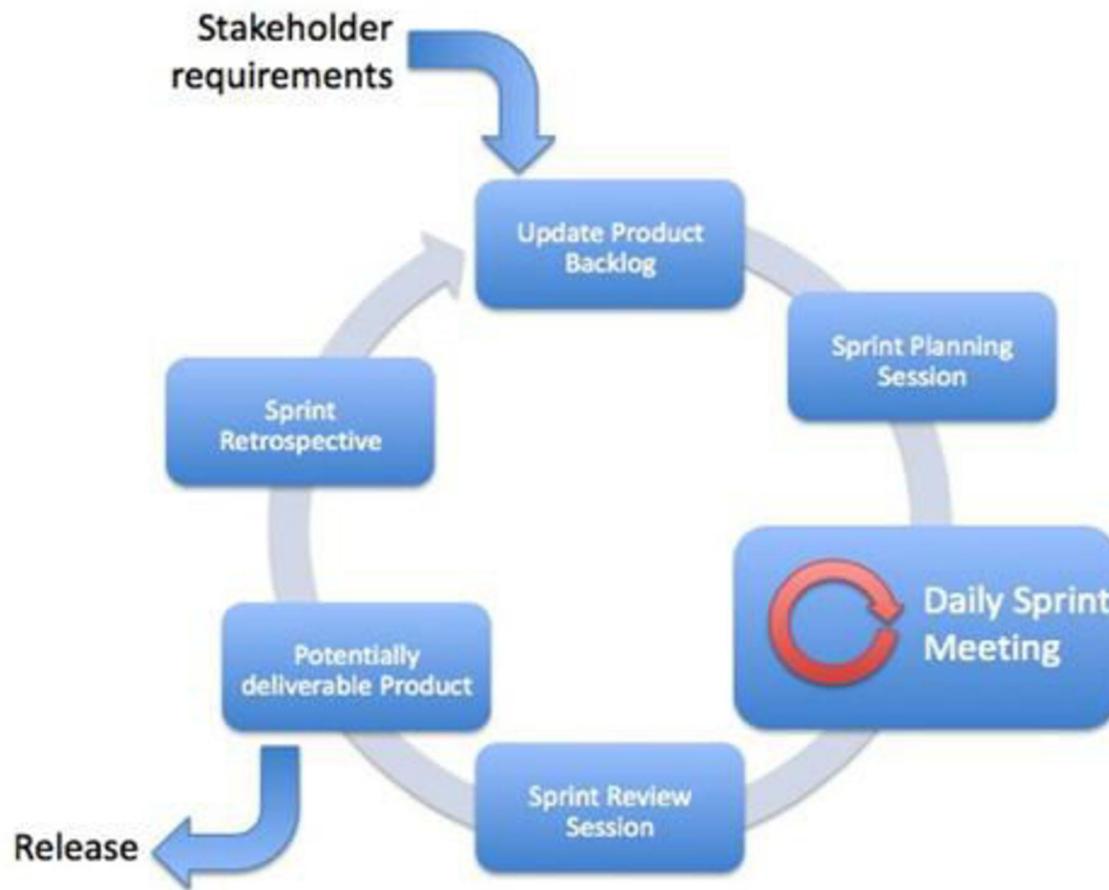


# Çevik Yöntemler / Scrum

- **What is a Sprint ?**
- In the Scrum Framework all activities needed for the implementation of entries from the Scrum Product Backlog are performed within Sprints (also called 'Iterations').
- Sprints are always short: normally about 2-4 weeks.

# Çevik Yöntemler / Scrum

- **What is a Sprint ?**
- Each Sprint follows a defined process as shown below:





# Çevik Yöntemler / Scrum

- **What is a Sprint ?**
- Each Sprint start with two planning sessions to define the content of the Sprint:
  - the WHAT-Meeting and
  - the HOW-Meeting.
- The combination of these two meeting are also defined as Sprint Planning Meeting.
- In the WHAT-Meeting the Scrum Team commits to the User Stories from the Scrum Product Backlog and
- it uses a HOW-Meeting to break the committed User Stories into smaller and concrete tasks.
- Then implementation begins.
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# Çevik Yöntemler / Scrum

- **What is a Sprint ?**
- At the end of the Sprint a Sprint Review Meeting is conducted to allow the Scrum Product Owner to check if all of the committed items are complete and implemented correctly.
- Additionally a Sprint Retrospective Meeting is conducted to check and improve the project execution processes:
  - What was good during the Sprint,
  - what should continue as it is and
  - what should be improved.
- During the Sprint a short daily Standup-Meeting (Daily Scrum Meeting) is held to update the status of the items and to help self-organization of the team.



# Çevik Yöntemler / Scrum

- **Daily Scrum Meeting / Daily Stand-up Meeting**
- The daily Scrum meeting is a short everyday meeting, ideally during start of the working day.
- Each team member who works towards the completion of a given sprint needs to participate.
- During this meeting, each team member should briefly provide the answers of the following three questions:
  - What has he/she accomplished since the last daily Scrum meeting?
  - What is he/she is going to accomplish until the next Scrum meeting?
  - What are the impediments that prevent him/her from accomplishing his/her tasks?



# Çevik Yöntemler / Scrum

- **Daily Scrum Meeting / Daily Stand-up Meeting**
- All team members should attend and they should stand during the meeting.
- The daily Scrum meeting should ideally not last more than 15 minutes.
- On the other no issues or concerns raised during the meeting are allowed to be ignored due to the lack of time.
- Issues or concerns ought to be recorded by the Scrum Master and needs to be specifically handled after the meeting.



# Çevik Yöntemler / Scrum

- **Sprint Review Meeting**
- At the end of each sprint a Sprint Review meeting is held.
- During this meeting the Scrum Team shows which Scrum Product Backlog items they completed (according to the Definition of Done) during the sprint. This might take place in the form of a demo of the new features.
- It is important to notice that Backlog items that are not completed shall not be demonstrated. Otherwise this might suggest that these items are finished as well.
- Instead incomplete items/remaining activities shall be taken back into the Scrum Product Backlog, re-estimated and completed in one of the following sprints.



# Çevik Yöntemler / Scrum

- **Sprint Review Meeting**
- The Sprint Review meeting should be kept very informal. No PowerPoint slides should be used and time for preparation and performing the meeting should be limited.
- During the meeting the Scrum Product Owner
  - inspects the implemented backlog entries and
  - accepts the solution or
  - adds new stories to the Scrum Product Backlog to adapt the functionality.
- Participants in the sprint review typically include the Scrum Product Owner, the Scrum Team and the Scrum Master.
  - Additionally management, customers, and developers from other projects might participate as well.



# Çevik Yöntemler / Scrum

- **Sprint Retrospective Meeting**
- After the Sprint Review meeting took place,
  - the Scrum Team and the Scrum Master get together for the Sprint Retrospective.
  - In this meeting all team members reflect on the past sprint and check three things:
    - what went well during the sprint,
    - what didn't, and
    - what improvements could be made in the next sprint.
  - The meeting should be time-boxed (e.g. 3 hours).



# Çevik Yöntemler / Scrum

- **Sprint Retrospective Meeting**
- The Sprint Retrospective is an integral part of the “inspect and adapt” process.
- Without this meeting the team will never be able to
  - improve their overall output and
  - cannot focus on the overall team performance.
- Therefore actionable suggestions to improve performance should be available at the end of the meeting.