**SOFTWARE DEVELOPMENT**

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Advanced Programming

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SOFTWARE METHODOLOGY   
SCRUM

**What is it?**

Scrum is an [iterative](https://en.wikipedia.org/wiki/Iterative_design) and [incremental](https://en.wikipedia.org/wiki/Iterative_and_incremental_development) framework for managing product development. It defines "a flexible [holistic](https://en.wikipedia.org/wiki/Holism) product development strategy where a development team works as a unit to reach a common goal”, challenges assumptions of the "traditional”, sequential approach to product development, and enable teams to self-organize by encouraging physical [co-location](https://en.wikipedia.org/wiki/Colocation_(business)) or close online collaboration of all team members, as well as daily face-to-face communication among all team members and disciplines involved.

The main key of Scrum is the dual recognition that customers will change their minds about what they want or need (often called requirements volatility) and that there will be unpredictable challenges—for which a predictive or planned approach is not suited. As such, Scrum adopts an evidence-based [empirical approach](https://en.wikipedia.org/wiki/Empirical_process)—accepting that the problem cannot be fully understood or defined up front, and instead focusing on how to maximize the team's ability to deliver quickly, to respond to emerging requirements, and to adapt to evolving technologies and changes in market conditions.

**Why Scrum?**

Basically, because the type of project that is developed.  
From the time available to the number of members Scrum fits perfectly. In addition, the way of working, for example: teams can self-organize, scrum meetings, and collaboration. Another reason why we accepted Scrum as our Software Development Methodology was documentation or reports which are minimum, because Scrum adopts an evidence-based [empirical approach](https://en.wikipedia.org/wiki/Empirical_process). This means, it focuses in the evidence transformed to experience more than reports.

**Implementing Scrum on the project:**

Starting with which Scrum includes:

All we know Scrum has some roles to take over,thereforewe suited in the following mode:

**Roles:**

**Product Owner:** The product owner represents the product's [stakeholders](https://en.wikipedia.org/wiki/Stakeholder_(corporate)) and the [voice of the custom](https://en.wikipedia.org/wiki/Voice_of_the_customer)er, so in our case was, ***Victor Ramírez, our professor****.*

He defined some needs and requirements about “The product” but leaving us the free election of what the project would mainly be.

**Development team:** The development team is responsible for delivering potentially shippable product increments every sprint (the sprint goal), In our team here are include ***Antonio Gil, Julio Alpuche and Carlos Rangel.***

They do self-organizing, even though there may be interaction between all the team, once the Scrum Master divided the tasks, each member has the obligation and responsibility of reach the goal for the Scrum meetings in the due time. For example: Antonio did the local repository and UML diagrams, Carlos started the C standard code, Julio the Code, etc. But despite each member having they own activities, we all helped each other in addition with the Scrum Master. “All for one, one for all”.

**Scrum master:** It is accountable for removing impediments to the ability of the team to deliver the product goals and deliverables. The scrum master is not a traditional [team lead](https://en.wikipedia.org/wiki/Team_leader) or [project manager](https://en.wikipedia.org/wiki/Project_manager) but acts as a buffer between the team and any distracting influences. In the team was ***Angel Escalante.***

Organizing each member of the team, helping them in their activities, to make the workflow and dealing the sprint times more over, to release and do other activities such as the report, recommendations, user guide and checking all the documents before the deliver.

**Work Flow:**

**Sprint:** A sprint (or iteration) is the basic unit of development in Scrum. The sprint is a [timeboxed](https://en.wikipedia.org/wiki/Timeboxing) effort; that is, it is restricted to a specific duration.  
*We applied the sprint to every week during 1 month.*

**Sprint planning:** At the beginning of a sprint, the scrum team holds a sprint planning event.  
It was the first we did, to choose what the project will be, how, why, advantages and disadvantages.  
To accord backlogs, sprints, daily scrums, etc.

**Daily Scrum: In our case (Each 3 days Scrum).**Each day during a sprint, the team holds a daily scrum (or [stand-up](https://en.wikipedia.org/wiki/Stand-up_meeting)).During the daily scrum, each team member typically answers 2 questions:   
-What did I complete yesterday that contributed to the team meeting our sprint goal?  
-What do I plan to complete today to contribute to the team meeting our sprint goal?

They were on Monday, Wednesday and Friday. (Sunday on internet).  
And the place selected was the classroom.

**Sprint review and Sprint retrospective.**

At the end of a sprint, the team holds two events: the sprint review and the sprint retrospective.  
Identifies and agrees on [continuous process improvement](https://en.wikipedia.org/wiki/Continual_improvement_process) actions **They were only 3 times.**