



UNIVERSIDAD DE BURGOS  
ESCUELA POLITÉCNICA SUPERIOR  
Grado en Ingeniería Informática



**TFG del Grado en Ingeniería  
Informática**

**título del TFG  
Documentación Técnica**



Presentado por nombre alumno  
en Universidad de Burgos — 11 de abril  
de 2019

Tutor: nombre tutor



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## Índice de figuras

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# Índice de tablas

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## *Apéndice A*

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# Software plan

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### A.1. Introduction

In the following annex, the organizational aspects of the study of different NER classifiers and the development of the software are documented. More precisely, the software development process and tools that were used to manage the process are described, followed by an examination of the course of the project. The second part of the annex examines the project's viability, including the calculation of involved costs and profit possibilities.

### A.2. Project Management

**Scrum** The project's management is inspired by the Scrum model used in agile software development. The model is based on the assumption that projects are too big to be planned in its entirety at the start. Therefore only a rough outline is made at the start. The project is divided into several milestones that provide an agile approach.

Scrum is a team based approach to project management. Due to the fact that this bachelor thesis is only written by one person the majority of the concepts can't be applied exactly as intended by Scrum. Consequently the project management approach is only loosely based on Scrum.

One concept that is applied are Sprints. In this case most sprints cycles had a duration of approximately a month. Some are bigger and some are smaller due to the complexity of tasks at hand and the time available. Sprint

meetings between the author and the project's coordinator were held every two weeks, usually around the middle and end of each sprint. In the meeting in the middle the tasks progress was discussed, while in the meeting at the end the results of the sprint was discussed and the next sprint was vaguely planned. The second meeting can therefore be seen as the Sprint Planning and Sprint Review. The project's coordinator can be seen as the Project Owner of the Scrum model, prioritizing tasks and guiding the project's direction.

**Github and ZenHub** The project is hosted on github. To organize tasks ZenHub was used. Zenhub provides a board to visualize tasks as well as it provides an overview of the remaining workload. It also offers several tools to inspect work velocity. Each Github issue is assigned a amount of story points, estimating the tasks size. In this case each point is the equivalent of the workload of <points hours.

### A.3. Time plan

The Kick-Off Meeting took place in the second week of December 2018. The elemental ideas of the project were discussed. Due to exams and other private responsibilities the project wasn't directly started after the meeting. Instead the 9. of January marked the beginning of the project.

Some milestones were smaller than others in a similar time frame. This is due to responsibilities of other classes and exam periods which reduced time availability during the semester. The next paragraphs give an overview over the the phases of developement.

### A.4. Feasibility study

**Economic viability**

**Legal Feasibility**



## *Apéndice B*

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# **Requirements Specification**

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- B.1. Introduction
- B.2. General objectives
- B.3. Requirements Catalogue
- B.4. Requirements specification



## *Apéndice C*

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# **Design specification**

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- C.1. Introduction
- C.2. Data design
- C.3. Precedural design
- C.4. Architectural design



## *Apéndice D*

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# **Technical Programming Documentation**

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- D.1. Introduction
- D.2. Directory structure
- D.3. Programmer's Manual
- D.4. Compilation, installation and  
execution of the project
- D.5. System tests



## *Apéndice E*

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# **User documentation**

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**E.1. Introduction**

**E.2. User requirements**

**E.3. Installation**

**E.4. User manual**





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## **Bibliografía**

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