

# “C compiler with Elixir”

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## CONTENT

|                     |       |           |
|---------------------|-------|-----------|
| <b>Objective</b>    | ..... | <b>1</b>  |
| <b>Requirements</b> | ..... | <b>2</b>  |
| <b>Schedule</b>     | ..... | <b>11</b> |

# Objective

According to the syllabus of the compilers subject, we (as students) have to create from scratch a compiler as the subject's final project.

The objective of this project is to create a functional C compiler using the Elixir language as the core; not only that, we will try out all the knowledge we have got about Software Engineering and Project Development.

# Requirements

| Concept                | Description   |
|------------------------|---|
| Warning messages       | The compiler has to send messages about problems during or after compilation, such as syntax mistakes or compilation errors.            |
| Machine code generator | The compiler has to use the proper Elixir commands to translate high level language into machine code understandable for the processor. |
| C language compilation | The compiler has to translate C code into machine code,   |

The client can make changes of these requirements in during the delivery period.

# Schedule

| Title                           | Beginning  | End        | Duration (days) | Description  |
|---------------------------------|------------|------------|-----------------|--|
| Analysis                        | 10/02/2020 | 12/02/2020 | 2               | Analysis of the project and requirements made by de client, creation of repositories and work plan.  |
| Preliminary study               | 12/02/2020 | 13/02/2020 | 1               | Study made for the complexity of the Elixir language.  |
| Planning                        | 13/02/2020 | 15/02/2020 | 2               | We created a schedule for the activities for every development team member   |
| Detailed analysis & development | 15/02/2020 | No date    |                 | <p>Using the Nora source as an example, we extended our analysis to include the necessary steps for creating a functional C compiler using the Elixir language.</p> <p>Creating the structure of the project files using the GitHub tool as support was accorded between the development team, an the roles were given to each member.</p> |
| First delivery                  | 17/03/2020 | 17/03/2020 | 1               | First delivery of the project (Could be online)  |
| Second delivery                 | *April     | *          |                 | Dates can change according to the client   |
| Third delivery                  | *May       | *          |                 | Dates can change according to the client   |