Beginning Date	Februray 25, 2020	**Project Manager:**	Néstor Iván Martínez Ostoa

Section I - General Information

Project applicant:	Team Assembly
Project sponsor:	Norberto Ortigoza Márquez
Email account:	hiphoox@bunsan.io

Section II – Project Details

Project name:	Writing a C compiler in Elixir
Project description:	In this project, Team Assembly will be writing a compiler for the C programming language using Elixir as its base language. The compiler compile source programs written in C (which are described in **Project deliverables**), assemble those source programs and run its executable files.
Project objective:	Learn how to build a compiler and identify its main parts.
Project scope:	More detailed information in the document named **Project Scope**

Project deliveries:	1. Compiler written in Elixir that compiles source programs written in C that return the following expressions inside the **main** function:
	  1.1 Phase One: Integers
	    1.1.1 1, 2, 3, 4, etc.
	  1.2 Phase Two: Unary Operators
	    1.2.1 Negation (-)
	    1.2.2 Bitwise complement (~)
	    1.2.3 Logical negation (!=)
	  1.3 Phase Three: Binary Operators
	    1.3.1 Addition (+)
	    1.3.2 Subtraction (-)
	    1.3.3 Multiplication (*)
	    1.3.4 Division (/)
	  1.4 Phase Four: More Binary Operators
	    1.4.1 Logical AND (&&)
	    1.4.2 Logical OR (||)
	    1.4.3 Equal to (==)
	    1.4.4 Not equal to (!=)
	    1.4.5 Less than (<)
	    1.4.6 Less than or equal to (<=)
	    1.4.7 Greater than (>)
	    1.4.8 Greater than or equal to (>=)
	2. The compiler should contain at least the following programs/modules:
	  2.1 Scanner
	  2.2 Parser
	  2.3 Code generator
	3. Project Documentation:
	  3.1 Project Charter document.
	  3.2 Project Scope document.
	  3.3 Analysis and Technical Design document.
	  3.4 Installation guide document.
	  3.5 Slides documenting the building process.

	Project start date	**Project estimated final date**	**Project Manager**
	March 3, 2020	**March 17, 2020**	**Néstor Iván Martínez Ostoa**

Project approval requirements:	1. For this phase, a program written in Elixir that compiles a source program written in C.
	   1.1 The compiler should contain at least a Scanner, Parser and Code Generator.
	   1.2 The source program should only return integers (**Project deliverables 1.1**).
	   1.3 The program should assemble the source program.
	   1.4 The user should be able to run the program in assembly language.
	2. Live demo of the first phase of the project.		

Project risks:	1. GitHub repository to work on. 2. Team understanding of Elixir basics. 3. Team understanding of a compiler and its basic components and processes. 4. Complicated team agenda that may reduce working time on the project.		
Key stakeholder list:	1. Sponsor: Norberto Ortigoza Márquez 2. Customer: Norberto Ortigoza Márquez 3. Domain Expert: Norberto Ortigoza Márquez 4. Project Manager: Néstor Iván Martínez Ostoa 5. System Architect: Mario Horacio Garrido Czacki 6. System Integrator: José Enrique Hernández Zamora 7. System Tester: Alejandro Ramírez Bondi		
Section III – Signatures			

Sponsor	Project Manager
Name and Signature	Name and Signature