DEVELOPMENT DOCUMENT

OBJECT - ORIENTED PROGRAMMING FOR GAME DEVELOPMENT WITH P5.JS

PREPARED FOR: PROCESSING FOUNDATION
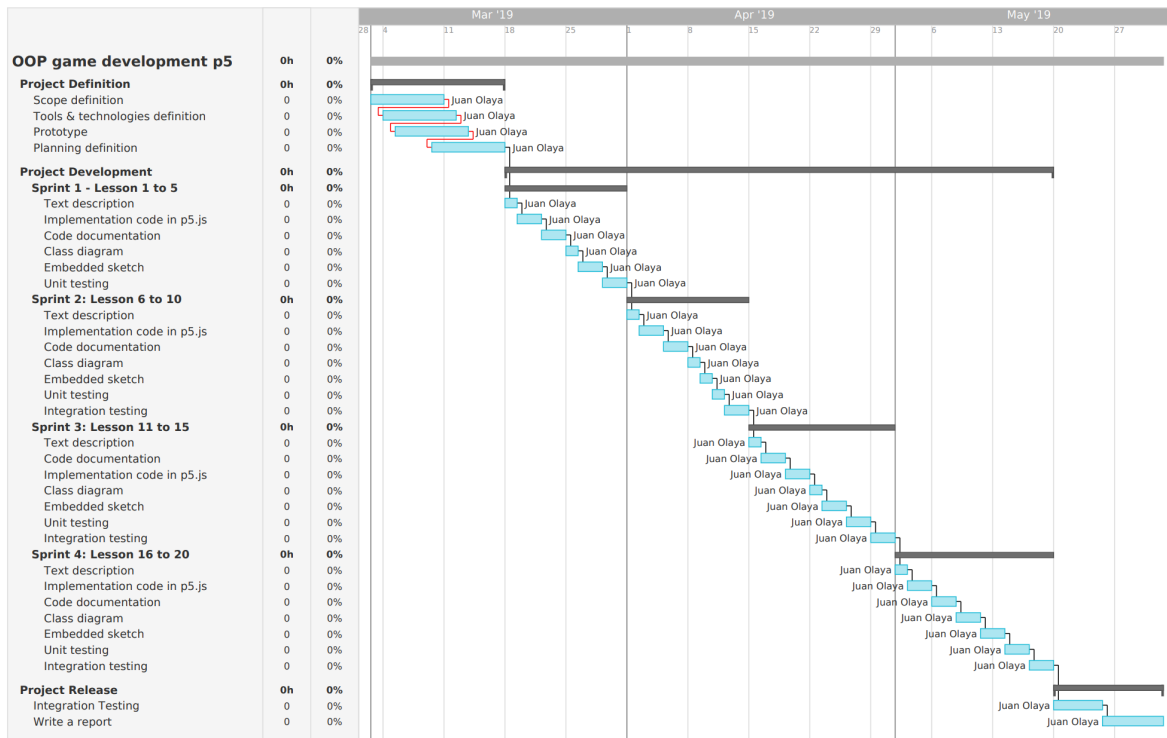PREPARED BY: JUAN OLAYA

PROJECT DEVELOPMENT

This project called **Object-Oriented Programming for Game Development with p5.js** is an online book that explains how to develop 2D video games using p5.js through of 20 lessons.

This project is going to be developed under the Scrum methodology for project developments. Scrum allows have a functional product at the end of each spring, permanent communication between the stakeholders and adjust requirements during the development of the project. Thus, the development of this project has 3 main stages:

1. **Project definition:** Agree with the mentor on the scope of the project and the activities to be carried out. Moreover, define with the mentor the tool to develop the online book. However, I propose to develop the book online using html and JavaScript.
2. **Project development:** The stage of the development of the project is divided into 4 springs. In each spring takes 2 weeks and develops a set of 5 lessons which have the following activities:

    *   Write the description text of the lesson
    *   Implement the code or translate it into p5.js in case it is written in Processing
    *   Elaborate the code documentation
    *   Elaborate the Class diagram in case it is not done
    *   Upload the code to OpenProcessing and embed the sketch in the online book website
    *   Perform unit and integration tests

3. **Release of the project:** The last stage is preparation for the release. For this project is planned to conduct integration testing and write a report on the outcome of the project.

TIMELINE

Below is the Gantt chart with the dates of execution of each activity. According with this Gantt chart the project will be operative on May 20, 2019. Due to the fact that Scrum is an agile methodology for software project development the schedule is able to adapt to adjustments and requirement changes.

	0h	0%	Mar '19	Apr '19	May '19
OOP game development p5	**0h**	**0%**			
Project Definition	**0h**	**0%**			
Scope definition	0	0%	Juan Olaya		
Tools & technologies definition	0	0%	Juan Olaya		
Prototype	0	0%	Juan Olaya		
Planning definition	0	0%	Juan Olaya		
Project Development	**0h**	**0%**			
Sprint 1 - Lesson 1 to 5	**0h**	**0%**			
Text description	0	0%	Juan Olaya		
Implementation code in p5.js	0	0%	Juan Olaya		
Code documentation	0	0%	Juan Olaya		
Class diagram	0	0%	Juan Olaya		
Embedded sketch	0	0%	Juan Olaya		
Unit testing	0	0%	Juan Olaya		
Sprint 2: Lesson 6 to 10	**0h**	**0%**			
Text description	0	0%	Juan Olaya		
Implementation code in p5.js	0	0%	Juan Olaya		
Code documentation	0	0%	Juan Olaya		
Class diagram	0	0%	Juan Olaya		
Embedded sketch	0	0%	Juan Olaya		
Unit testing	0	0%	Juan Olaya		
Integration testing	0	0%	Juan Olaya		
Sprint 3: Lesson 11 to 15	**0h**	**0%**			
Text description	0	0%		Juan Olaya	
Code documentation	0	0%		Juan Olaya	
Implementation code in p5.js	0	0%		Juan Olaya	
Class diagram	0	0%		Juan Olaya	
Embedded sketch	0	0%		Juan Olaya	
Unit testing	0	0%		Juan Olaya	
Integration testing	0	0%		Juan Olaya	
Sprint 4: Lesson 16 to 20	**0h**	**0%**			
Text description	0	0%		Juan Olaya	
Implementation code in p5.js	0	0%		Juan Olaya	
Code documentation	0	0%		Juan Olaya	
Class diagram	0	0%		Juan Olaya	
Embedded sketch	0	0%		Juan Olaya	
Unit testing	0	0%		Juan Olaya	
Integration testing	0	0%		Juan Olaya	
Project Release	**0h**	**0%**			
Integration Testing	0	0%			Juan Olaya
Write a report	0	0%			Juan Olaya

MENTOR

I am looking forward to obtain a constant feedback from the mentor in each stage of the development of the project. I would prefer to have a mentor that know the object-oriented programming paradigm in order to discuss the best method develop and explain object-oriented concepts.