

Software Project Management Plan  
Version 1.1

ESTIMATING GESTATIONAL AGE AND  
WEIGHT FROM ULTRASONOGRAPHY IMAGE  
WITH CALCULATE CROWN RUMP LENGTH  
AND GENASTIONAL SAC

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## Change History

Version	Date	Author	Changes
1.0	July 19, 2015	Roberto Julianto	initial version
1.1	August 9, 2015	Roberto Julianto	

## **Preface**

The purpose of this document is to specify the project plan to develop the program for finding genital age and weight based on CROWN RUMP LENGTH (CRL) and GESTATIONAL SAC (GS). The primary audience is the project advisor, Mr. David H. Hareva as the lecturer of Image Processing. This document outlines a brief plan about how the project is to be shaped. The SPMP document will serve as a partial of requirement task for subject Software Engineering. Updates of this document will serve to record the progress of the project if necessary.

# **Chapter 1**

## **INTRODUCTION**

### **1.1. Project Overview**

Antenatal Care is the care of pregnant women received from health professionals during pregnancy. They will ensure that pregnant women and the baby has a good shape, and provides useful information about becoming pregnant.

The aim of Antenatal Care is as follows:

- a. Monitor the progress of the pregnancy to ensure the health of mother and infant growth
- b. Improving and maintaining physical health, mental, and social mother and baby.
- c. Recognize early abnormalities or complications that may occur during pregnancy, including a history of the disease in general, obstetrics and surgery
- d. Prepare term labor, give birth safely, mother and baby with minimal trauma
- e. Prepare postnatal mother to walk normally and exclusive breastfeeding
- f. Prepare for the role of mother and family in accepting the birth of a baby in order to grow and develop normally.
- g. Helping to prepare the mother, and care for the child physically, psychologically and socially.

Ultrasound is a tool in medicine that utilizes ultrasonic waves, the sound waves have a high frequency (250 kHz - 2000 kHz) which can then be displayed in the monitor screen. At first ultrasound device discovery begins with the discovery of the ultrasonic waves and then many years after that, precisely in approximately 1920, the working principle of ultrasonic waves

started to be applied in the field of medicine. The use of ultrasound in medicine was first applied for the benefit of therapy is not to diagnose a disease.

Ultrasonography is one of the products of medical imaging technology known to date Medical Imaging (MI) is a technique used to image the inside of an organ or a tissue cell (tissue) in the body, without making an incision or wound (non-invasive). Interaction between physical phenomena tissue and followed by detection technique result of interaction itself to be processed and reconstructed into an image (image), the basis for the operation of equipment MI.

#### **1.1.1. Purpose, Scope, and Objectives**

The purpose of this project is to estimate fetal age and weight of the ultrasound image processing by using Crown Rump Length (CRL) and Gestational Sac (GS).

The objectives of the project are mentioned as follows:

- Complete the project by the due date
- Meet all the requirements that are mentioned in the SRS, which fall into one of these categories
  - Desktop application
  - Backend

#### **1.1.2. Assumptions and Constraints**

Here is the list of all assumptions that are made:

- This project is a component of a larger project
- The hardware is not included in this project, and is handled as a different project.  
Hardware is assumed to be ready at least by the end of this project.

Here is the list of all constraints that are made:

- Budget
  - No Budget
- Time
  - 1 month

## **1.2.Project Deliverables**

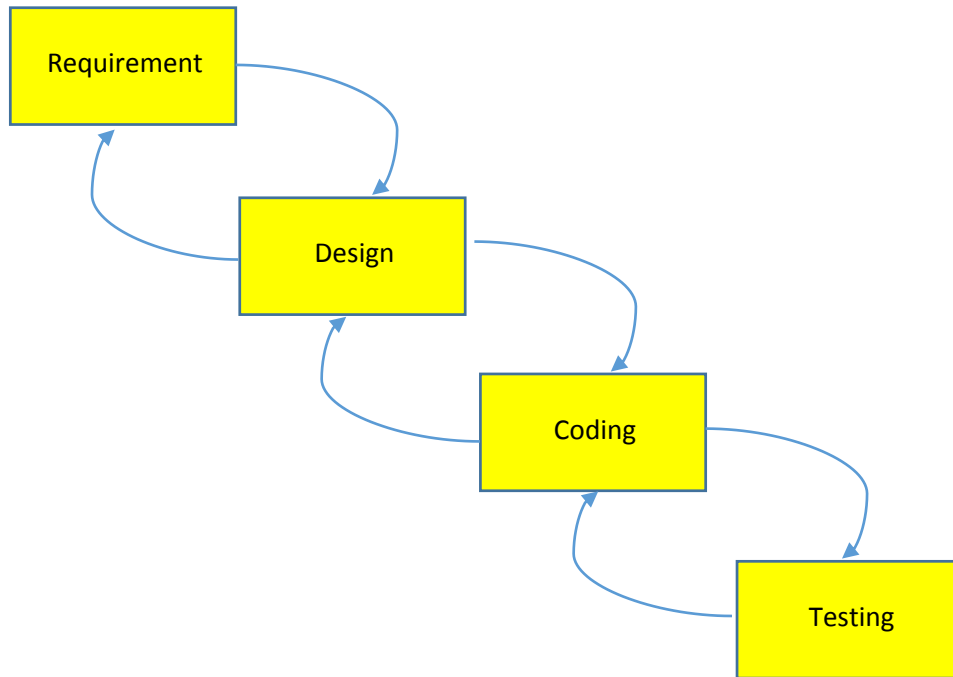
Here is the list of all items that will be available by the completion of the project.

- Software program, along with its environment and supporting libraries.
- Project documentation
  - Software Project Management Plan (SPMP)
  - Software Requirement Specification (SRS)
  - Software Design Specification (SDS)
  - Software Testing Report (STS)

## Chapter 2

### PROJECT ORGANIZATION AND MANAGEMENT PLAN

#### 2.1. Software Process Model



#### 2.2. Work Activities

ID	Task Name	Duration
1	Make Pipeline	1 days
2	Select Image Methods	4 days
3	Revise Pipeline	1 days
4	Testing Module	4 days
5	Make Documentation	4 days
6	Make Software Model	1 days