MSE | MASTER OF SCIENCE IN ENGINEERING

Hes·so
Haute Ecole Spécialisée de Suisse occidentale
Fachhochschule Westschweiz
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Master of Science HES-SO in Engineering

HES-SO//Master- TIC

Products recommendation system using the social media networks

Master thesis Specifications

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Version 1.0

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TABLE OF VERSIONS HISTORY

Version	Date	Description
v1.0	23.09.2015	Fist draft of project specification

Table 0.1 – Versions history

CONTENTS

2 OBJECTIVE AND CONSTRAINTS

The aim of this project is to analyze the different type of recommendation systems, to study the state of the art and to create a stand-alone application for demonstrate the functioning of the system. The test will be also made for demonstrate the correctness and the performance of the system.
The objectives for this project are the following:

2.1 Main objectives

— Establish the domain and the dataset that will be used to implement a recommendation systems
— Establish the state of the art of the principals type of recommendation systems
— Study the best technique for our particular subject and dataset
— Make a research of possible technologies for implement the recommendation system
— Realize the architecture and a stand-alone application that demonstrate the work done
— Provide some measure of the performance and of the correctness of the system

2.2 Secondary objectives

— Adapt and test the system on the RecSys challenge 2015 [1]

1. RecSys Challenge 2015, http://recsys.acm.org/recsys15/challenge/

3 TASKS TO BE PERFORMED

3.1 Project starts

— Access to Git and Forge
— Project specifications
— Planning

3.2 Analysis

— Research of the datasets available for testing a recommendation system
— State of the art of the existing recommendation system techniques
— Analysis of technologies / framework
— Analysis of the recommendation technique chosen
— Write the analysis part of the final rapport
— Realization of a prototype of a sample application built with the chosen technology

3.3 Design

— Design the architecture of the system
— Design the recommendation algorithm to be implemented
— Write the design part of the final rapport

3.4 Implementation

— Implementation of the architecture
— Implementation of the recommendation algorithm
— Implementation of the standalone application

3.5 Tests

— Measure the performance of the algorithm (Recall, Precision, etc.)
— Measure the correctness of the algorithm with a ground-truth dataset

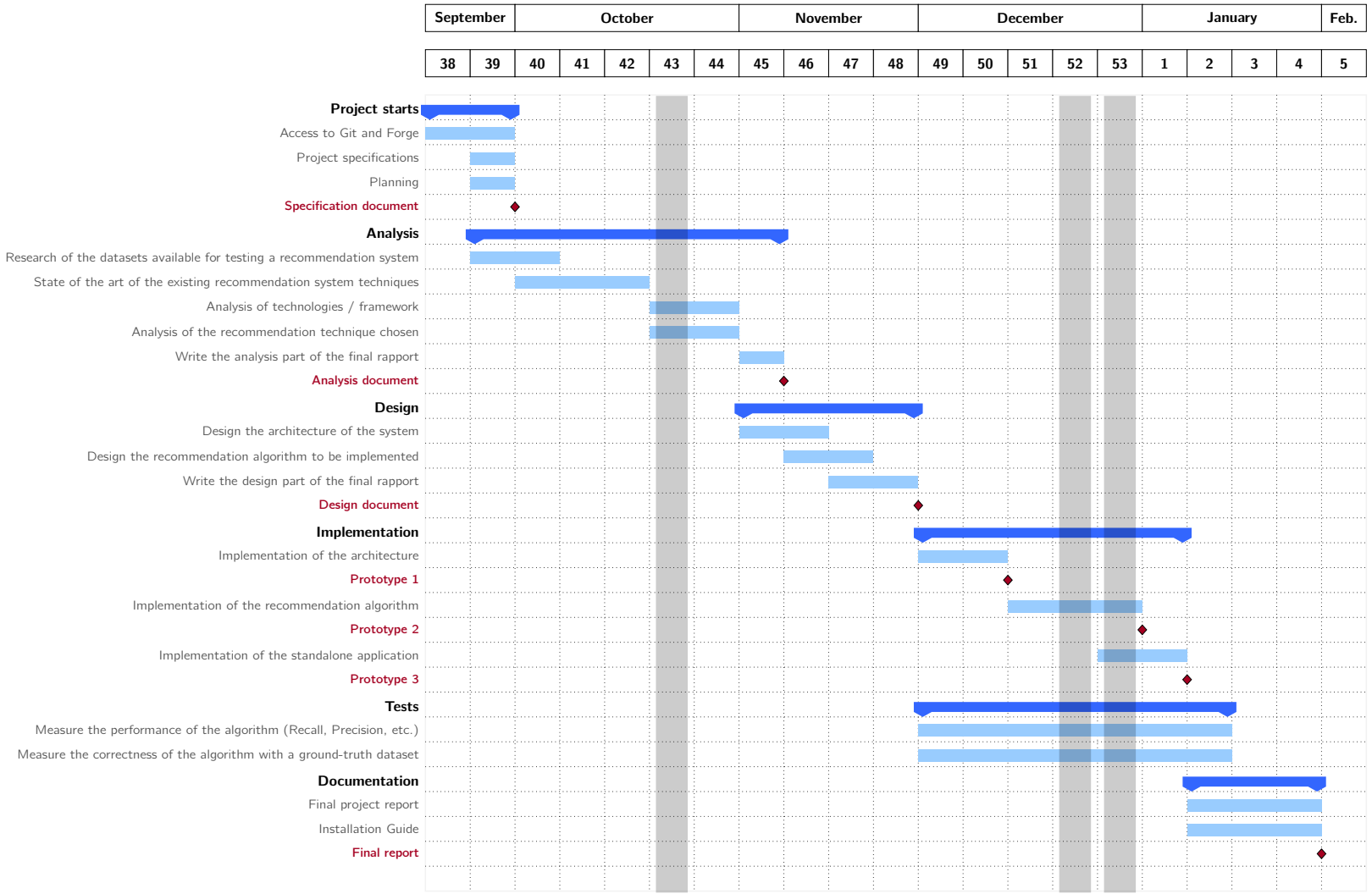
3.6 Finalization

— Write the final project report
— Installation Guide
— User Guide

4 PLANNING

4.1 Gantt diagram

See annexe.


September
October
November
December
January
Feb.
38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 1 2 3 4 5
Project starts
Access to Git and Forge
Project specifications
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Specification document
Analysis
Research of the datasets available for testing a recommendation system
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Write the analysis part of the final rapport
Analysis document
Design
Design the architecture of the system
Design the recommendation algorithm to be implemented
Write the design part of the final rapport
Design document
Implementation
Implementation of the architecture
Prototype 1
Implementation of the recommendation algorithm
Prototype 2
Implementation of the standalone application
Prototype 3
Tests
Measure the performance of the algorithm (Recall, Precision, etc.)
Measure the correctness of the algorithm with a ground-truth dataset
Documentation
Final project report
Installation Guide
Final report

BIBLIOGRAPHY

[1] "Products recommendation system on social media" project statement, Ghorbel Hatem, 2015