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PROJECT MANAGEMENT PLAN Data Engineering Project



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(Template: <http://www.projectmanagementdocs.com/template/Project-Management-Plan.pdf>)

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Introduction

In order to improve its reports to one of its confidential client, EMNS, Spanish society specialized in international-questionnaire-sending, needs a subcontractor to realize a data mining project about technology product buyers.

Data-Paris, French society in data mining, thanks to its experience, world-class clients, and its project management combining all the relevant areas and skills useful to the success of all the steps until the final report, won the tender.

Data-Paris will use all its possible resources to achieve the goal of the project, and the satisfaction of EMNS and its client.

Project Management Approach

Rym Barkaoui, the project manager, is responsible of the management and execution of this project. All the personnel from the different teams will be under her responsibility and authority: development, data collector, quality control, and communication team.

Mohamed SEFFAR, communication team manager, will have the responsibility of making the link between R.Barkaoui, EMNS communication managers, and the different teams needing some information from the client.

Manon FOULQUIER, development team manager will lead the different steps involving software and specialized tools, managing human resources, and reporting the progress to R.Barkaoui.

Data collector team, leading by L.FOHANDE, will be directly related to Development team and Communication team, assuming the responsibility of collecting/treating all the useful data mostly in the beginning, then in case of changing.

Quality control team, leading by S.RANOZKY, will be in charge of monitoring the well progress of the project steps, overseeing the process results, reporting any useful information to R.Barkaoui.

The expert analyst, F.CANSSOIS, will be a support to both data collecting and development team, and will be in charge of realize the final analysis of the results obtained.

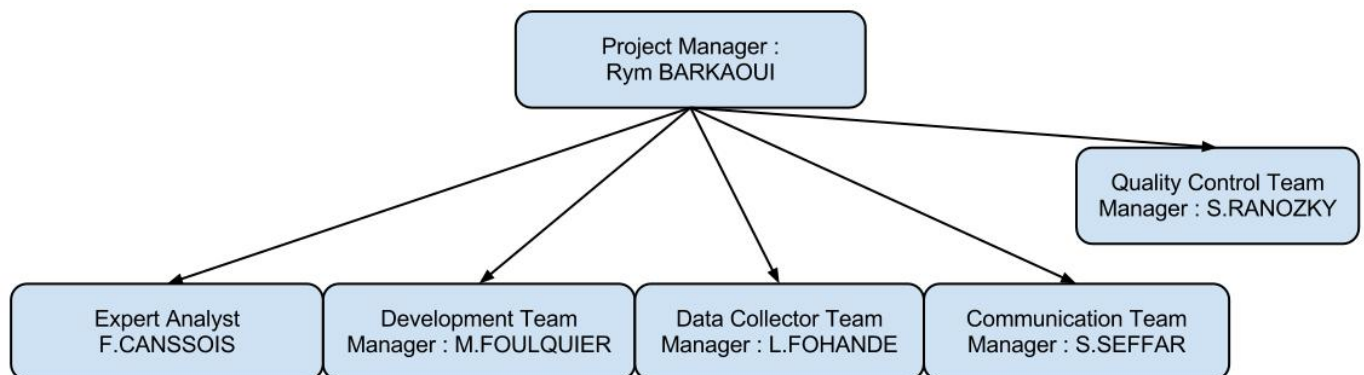


Figure 1. Organization of the project team

According to his responsibilities, the project manager will have to produce a project planning using all the available resources. The project sponsor will have to validate the project plans, and every important decision, unless both project manager and sponsor sign a written delegation of authority.

Project Scope

The aim of this data-mining project is to study the profile and the behavior of customers that are planning to buy IT products like computers, accessories... Interviews will be performed on customers in order to know the brand they prefer, the steps they make since they decide to buy till they buy it. For each step, it is important to ask them how they have found information about these products and what make them choose a product more than another.

In this study there are two different environment for buying, in a shop or online with a website.

After collecting all the data from that survey, we will work on these data and define precisely our goals. In our case, the main goal is to tell our customer what do they have to change in order to improve their sells. Thus, we divided this goal into 3 more specific goals; the first one is defining the profile of major buyers, the second the behavior of customers and eventually to figure out some important parameters that makes people buy these products. For the first one, we have to establish the profile of major buyers online and in the shop the main parameters are the country where the customer live, the gender, the age and the marital status. For example this would able us to know that the French men between 18 and 25 and that are married are the major online buyers, thus the company that hired us would know that information and would aim this kind of customers on their online advertisement optimizing their sells. For the second we will focus more on how the customer behaves both in the shop and online, meaning what is the customer looking for when he goes to the online store this goal will allow the company we work for the focus more on the popular features of the website and maybe removing the irrelevant features; for example if most customers come the website to look for offer then the company would modify their website to draw the customer's attention toward these offers. Considering that these "popular features" may differ from a country to another we decided also to add the country parameter in another goal. For example the "looking for prices" feature may be less popular in another country where most people may be looking for information about the warranty, thus this version of the website should be different in order to fit it's customers needs. For the last goal the aim is to figure out what are the most important parameters for a shopper.

First step, the data understanding:

- Explanation of each attributes
- Explanation of how these attributes will help us with our goals
- Adding new attributes to reach some of our goals (for example major buyer: budget, frequency)

Second step, the preprocessing:

- Data cleaning: we remove the attributes that don't help us reaching our goals

Third step, modeling:

- Data mining
- We will treat each goals following the schedule. All goals can be done in parallel whereas goal #2 has to be done on sequence (cf. Gantt diagram section page 10)

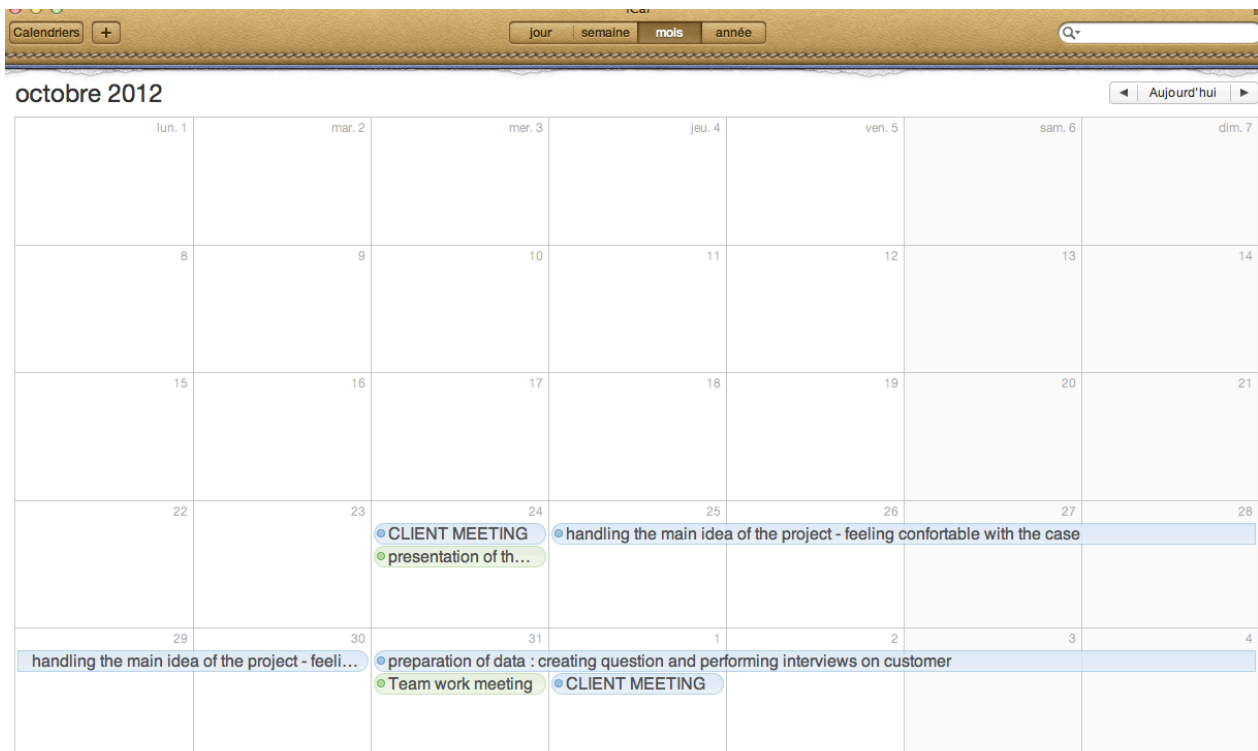
Final step: Evaluation and Conclusions

Planning Schedule:

This schedule can be changed during the project.

There are two budget meetings in order to control if the budget is respected.

The teamwork meetings are dedicated to the review of the project and the sponsor assignments.



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preparation of data : creating question and performing interviews on customer						
		<div>• Team work meeting</div>				
12	13	14	15	16	17	18
preparation of data : creating question and...						
		<div>• data understanding - data preprocessing - data cleaning</div> <div>• Team work meeting</div>	<div>• BUDGET MEETING</div>			
19	20	21	22	23	24	25
data understanding - data preprocessing - data cleaning						
		<div>• Team work meeting</div>	<div>• CLIENT MEETING</div>			
26	27	28	29	30	1	2
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10	11	12	13	14	15	16
modeling step: data mining		<div>• Evaluation</div>	<div>• Data Analysis</div>			
17	18	19	20	21	22	23
<div>• Finalization</div>				<div>• deliver the whole...</div>		
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Milestone List

Four major milestones can be identified in our project: First the data understanding and preprocessing step, the management project, the data modeling and finally the evaluation and interpretation of the results.

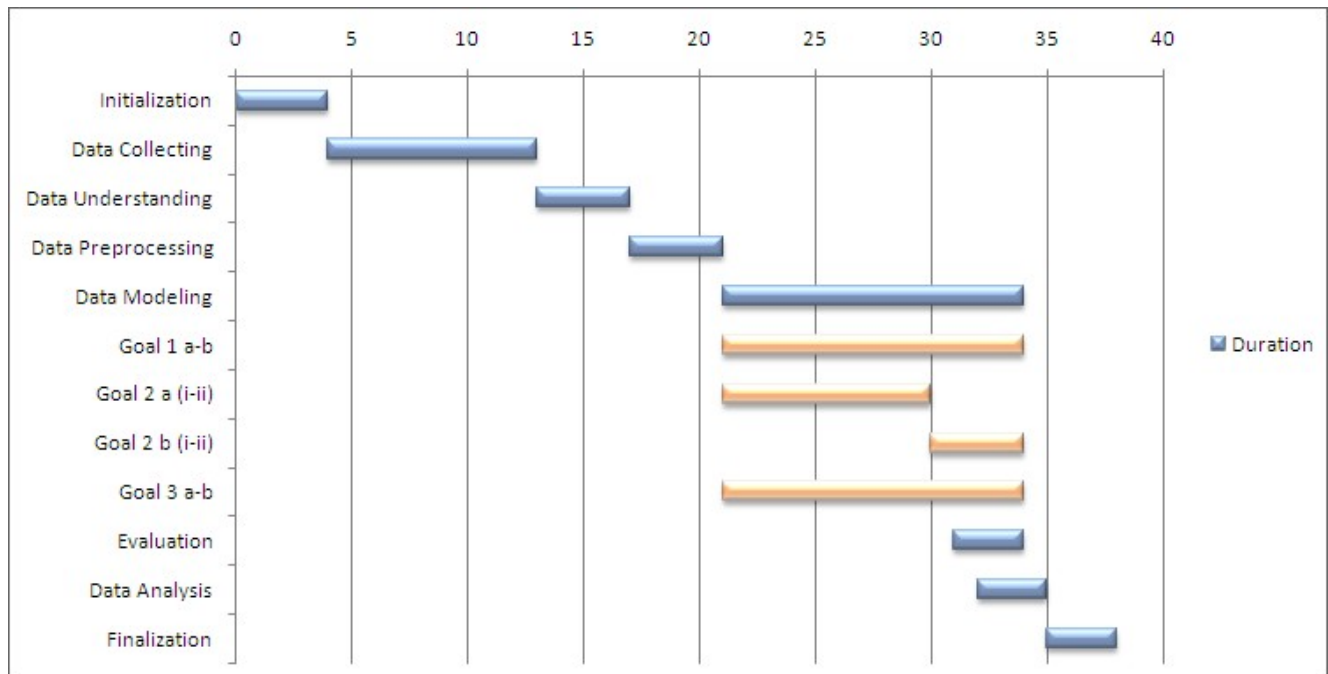
Milestone List				
Project:			Date: 31/10/2012	
Milestone No.	Milestone	Mandatory/Optional	Delivery date	Verification
001	Data understanding and preprocessing.	Mandatory	27/11/2012	Approved
002	Management Project	Mandatory	8/12/2012	Not Approved Yet
003	Data modeling	Mandatory	18/12/2012	Not Approved Yet
004	Evaluation and interpretation of the results	Mandatory	9/01/2013	Not Approved Yet

Gantt Diagram

This section will provide a vision of the Gantt diagram according to the planning schedule. The duration and day count don't take in account the weekend days.

Actor Indexes	Company	Team/Manager
0	EMNS	Communication
1	Data-Paris	Project Manager
2	Data-Paris	Communication
3	Data-Paris	Quality control
4	Data-Paris	Data collecting
5	Data-Paris	Development
6	Data-Paris	Expert analyst

Task index	Task Name	Start Date	End Date	Duration	Day count	Predecessors	Actors (in parenthesis for support)
1	Initialization	24/10/2012	30/10/2012	4	0		0,1,2
2	Data Collecting	31/10/2012	13/11/2012	9	4	1	0,4
3	Data Understar	14/11/2012	20/11/2012	4	13	2	4,(6)
4	Data Preproces	21/11/2012	27/11/2012	4	17	3	4,5
7	Data Modeling	28/11/2012	15/12/2012	13	21	4	5
7.1	Goal 1 a-b	28/11/2012	15/12/2012	13	21		5
7.2	Goal 2 a (i-ii)	28/11/2012	10/12/2012	9	21		5
7.3	Goal 2 b (i-ii)	11/12/2012	15/12/2012	4	30		5
7.4	Goal 3 a-b	28/11/2012	15/12/2012	13	21		5
8	Evaluation	12/12/2012	15/12/2012	3	31		5,6
9	Data Analysis	13/12/2012	18/12/2012	3	32		6
10	Finalization	18/12/2012	21/12/2012	3	35	All	0,1,2,3,6



Change Management Plan

If any change is required, it is important to follow the steps below:

- Discuss with the project manager about the change.
- If the change is approved, prepare a presentation on how the change is important, is going to be held for the next teamwork meeting.
 - This presentation should include the cost, the risk and the new schedule of this change
- If all the different teams approved the change, update the report

Communications Management Plan

This Communications Management Plan sets the communications framework for this project. It will serve as a guide for communications throughout the life of the project and will be updated as communication requirements change. This plan identifies and defines the roles of Data-Paris project team members as they pertain to communications. It also includes a communications matrix, which maps the communication requirements of this project, and communication conduct for meetings and other forms of communication.

The Project Manager will take the lead role in ensuring effective communications on this project. The communications requirements are documented in the Communications Matrix below. The Communications Matrix will be used as the guide for what information to communicate, who is to do the communicating, when to communicate it, and to whom to communicate.

Communication Type	Description	Frequency	Format	Participants	Deliverable
Weekly status Report	Email summary of project status	Weekly	Email	Project Team/Stakeholders/Project Sponsor	Status Report.
Weekly Project Team Meeting	Meeting to check the progress of the project	Weekly	In person	Project Team	

Project team directory for all communications is:

Name	Title	E-mail
BARKAOUI Rym	Project Manager	rym.barkaoui@hotmail.fr
FOULQUIER Manon	Head of the Development Team	manon.foulquier@gmail.cc
SEFFAR Mohamed	Head of the Communication Team	simoseffar@gmail.com

Communications Conduct:

Meetings:

Our meetings occurred every Wednesday at 5pm, each meeting last about 45 minutes, and gathered the project manager the Head of the development Team and Head of the Communication Team. During these meetings everyone takes note in order to remember his next assignment and it is imperative that all participants arrive to each meeting on time and all cell phones and blackberries should be turned off or set to vibrate mode to minimize distractions.

Email:

All email pertaining to the Data-Paris Project should be professional, free of errors, and provide brief communication. If the email is to bring an issue forward then it should discuss what the issue is, provide a brief background on the issue, and provide a recommendation to correct the issue. The Project Manager should be included on any email pertaining to the Data-Paris project.

Cost Baseline

The project team manager has approved the budget. Two meetings are programmed during the project to know if the budget is respected or no. If any change has to be done the “Changement Management Plan” will be followed.

Project Phase	Budget Total	Comments
Survey	3520€	Includes the preparation phase of the survey, the interviews and the collection of all data of these interviews.
Work on data	4980€	Includes the data understanding, data preprocessing data cleaning
Data Mining	7040€	Includes all the work on data (algorithms...)

Details:

SURVEY

	Creating Test	Performing Interview	Analizing Data	Conclusions/evaluation
Price per day/person (€)	34	15	53	25
number of person	2	5	3	2
Total per day(€)	68	75	159	50
total per month	1360	1500	3180	1000
Total for the survey (€)	Two weeks : 3520			

Work on DATA

	DATA understanding	DATA prepossessing	DATA cleaning	Conclusions/Evaluation
Price per day/person (€)	56	56	56	25
number of person	3	4	1	2
Total per day (€)	168	224	56	50
total per month	3360	4480	1120	1000
Total for the work on data (€)	Two weeks : 4980			

DATA MINING

	succes criteria	data set	performing dm techniques	Conclusions/Evaluation
Price per day/person (€)	45	30	65	65
number of person	2	2	3	3
Total per day(€)	90	60	195	195
total per month	1800	1200	3900	3900
Total for the data mining (€)	One month : 7040			

Risk

The approach for managing risks for the Data-Paris Project includes a methodical process by which the project team identifies, scores, and ranks the various risks. The most likely and highest impact risks were added to the project schedule to ensure that the assigned risk managers take the necessary steps to implement the mitigation response at the appropriate time during the schedule. We would discuss these risks in our weekly meeting.

SPONSOR ACCEPTANCE

Approved by the Project Sponsor:

<Project Sponsor> <Project Sponsor Title>

Date: _____