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Project: Web-Application for managing clientele information in OCS-Consulting

APPENDIX B: PROJECT PLAN

Muhammad Tariq Arif Hussain
FONTYS UNIVERSITY OF APPLIED SCIENCES |

TITLE PAGE

HBO-ICT: English Stream

Data student:	
Family name, initials:	**Hussain, M.T.A.H**
Student number:	**2222716**
project period: (from – till)	**August 27, 2018 – February 1, 2019**
Data company:	
Name company/institution:	**OCS-Consulting**
Department:	**Consulting Management**
Address:	**Ruwekampweg 2G** **5222 AT 's-Hertogenbosch** **The Netherlands**
Company tutor:	
Family name, initials:	**Zanella, R. Z**
Position:	**SAS-Consultant**
University tutor:	
Family name, initials:	**Sanchez, J. R. N**
Project plan:	
Title:	**Web-Application for managing clientele information in OCS-Consulting**
Version:	**3**
Date:	**September 23, 2018**

Approved and signed by the company tutor:

Date: 01-10-2018

Signature:

Approved and signed by the university tutor:

Date: 01 October 2018

Signature:

Agreed and signed by the student:

Date: 01 October 2018

Signature:

Document History

Revisions

Version	Status	Date	Changes
1	concept	September 3, 2018	Added Management Summary, Contents, Introduction, Company Description, Project Definition, Research Method and Approach, Project Condition, Project Decomposition Structure, Global Planning, Project Organisation Structure and Project Control.
2	draft	September 13, 2018	Specified the research topic, added references, corrected the Product Decomposition Diagram, specified the expectations from the drafts based on our discussion, added grid-lines to the planning.
3	draft	September 23, 2018	Changed Management Summary, Introduction, Business Unit: Central Services, Research Topic, Work Breakdown Structure, Project Organization Structure and Project Control. Changed Project Decomposition Structure to Work Breakdown Structure. Added Attachment A: Communication Plan and Attachment B: Risk Management Analysis.

Approval

This document requires following approvals:

Version	Date approval	Name	Function
1	September 12, 2018	**Zanella, R. Z**	Company Tutor
2	September 19, 2018	**Sánchez, J. R. N**	University Tutor
3	October 1, 2018	**Zanella, R. Z**	Company Tutor
3	October 1, 2018	**Sánchez, J. R. N**	University Tutor

Distribution

This document is distributed to:

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1	September 7, 2018	**Zanella, R. Z**	Company Tutor
2	September 13, 2018	**Sánchez, J. R. N**	University Tutor
3	September 26, 2018	**Sánchez, J. R. N**	University Tutor

Management Summary

Document Objective

The objective of this document is to define the project- **Web-Application for managing clientele information in OCS-Consulting**. It will also function as the base for managing and directing the project to success. This document will meet this objective by providing the basis for the Steering Committee to monitor progress, implement change and assess the validity of the project. This document will ensure the commitment of the Steering Committee to the project within terms of agreement with Project Manager.

Motivation

OCS-Consulting started with less than five people nearly thirty-five years ago and since then it has grown considerably however some of the internal processes remained the same. For example, the use of spreadsheets and paperwork are still predominant in keeping their clientele information. These are error-prone and labour-intensive processes. OCS Consulting would prefer to replace these processes with custom-built software to be more efficient and cost effective. Further, this data has not been developed for extracting latent information. This application should therefore store all their clientele information into a database and subject it over to a data-visualization tool to surface any new opportunities for OCS Consulting hidden away in the data that can result into a more efficient process.

Global Approach

The project is divided into five stages. The first stage will have phases for project planning and problem analysis. Here, the project plan is made, and the problems faced by the company (OCS-Consulting) are identified. These problems are analysed and categorised.

The second stage will have a user requirements study with the company. It will be followed by a design and development phase during which a web-application is built. The requirements are consolidated into a solution to problems identified in the first stage. The design and development phase targets only the highest priority requirement(s) achievable within set deadlines. The web-application developed in the second stage will be named “Alpha Functional Model”.

The third stage will have a research phase. Here, a study is conducted on how similar problems are solved and/or best-practices by other consulting businesses. The study will be specifically on the methods of managing clientele information using web-applications. Information from this study will be the new requirement(s) for the Alpha Functional Model. The Alpha Functional Model will be changed to meet the requirement(s) of highest priority achievable within set deadlines. This version of the web application developed in the third stage will be called the “Beta Functional Model”.

The fourth stage will have an analysis and an execution phase. Here, data is analysed under a suitable data-visualization tool.

The fifth and final stage will have an evaluation phase where key stakeholders will evaluate the web-applications.

Global Costs

The project will have a budget of 720 working hours divided over 90 days. The project will last from August 27, 2018 to February 1, 2019.

Contents

1. Introduction

This document has been written to record all relevant basic information and starting points of the project to manage it correctly. It aims to define the project-**Web-Application for managing clientele information in OCS-Consulting**, serve as a basis for its management and enable the assessment of the success of the project.

This Project Plan covers the following fundamental aspects of the project:

- The intension to achieve clarity over the kind of web-applications that can handle OCS-Consulting clientele information.
- The motivation for proper management of OCS-Consulting clientele information.
- The roles and responsibilities of all the parties involved with project- **Web-Application for managing clientele information in OCS-Consulting B.V.**
- The approach of development, planning of activities and administrative measures to take for the project including the scheduling of meetings.

This document is used:

- to ensure that the project has a sound basis before the Steering Committee is asked to commit to the project;
- to serve as a first point of reference based on which the Steering Committee and the Project Manager can monitor progress
- to co-ordinate the assessment and control of the project within terms mentioned and agreed upon.

2. Company Description

OCS-Consulting is an independent IT consultancy company. It was founded in 1984 in London as a one-man operation and it is now established over the UK, Switzerland and the Netherlands with over one-hundred full-time employees. With its global approach as an IT service provider, its expertise lies in Project Management, Business Analysis, Testing and developing technologies such as Java, Microsoft, SAS, Business Intelligence and legacy tools. Further OCS-Consulting B.V. specializes in the SAS® Software tools as both a reseller and a service-provider. Being the only "SAS Gold-Partner" in the Netherlands, it is the first company to achieve all major SAS competency badges in Europe and second in the world as of 2017.

OCS-Consulting B.V. is the OCS-Consulting office located in 's-Hertogenbosch, the Netherlands where this project is initiated. It is considered the centre of excellence for data analytics and business intelligence with strength in the sectors of Life Sciences and Financial Services. [1]

2.1 Organization Structure

OCS-Consulting as an organization holds work-spaces in two countries i.e. the UK and the Netherlands with a permanent establishment (PE) in Geneva, Switzerland. In the UK, the offices are in Horsham, Amersham and in the Netherlands, it is in 's-Hertogenbosch. The name of the office in UK is OCS-Consulting PLC. The name of the office in 's-Hertogenbosch is OCS-Consulting B.V. and it is further divided into two divisions namely, SAS Consulting services and Life Sciences. Both offices within OCS-Consulting have a division called Central Services that handle Marketing, Finance, Administration, HR and IT functions and other internal functions to facilitate its core-business lines.

2.2 Business Unit: Central Services

Central Services within OCS-Consulting handle all internal processes. It has the following branches:

- **Marketing:** Marketing keeps the company recognised over platforms like social media and company-websites.
- **Finance:** Finance manages all the accounts for creating annual reports and other Key Performance Indicators (KPIs) for the company.
- **Administration:** Administration provides direct assistance to employees in terms of transportation, resources, legal aid, accomodation etc.
- **HR:** HR finds the right candidates for new or vacant functions within the organization, initiates them smoothly into the company and organizes appraisals.
- **IT:** IT manages, maintains and provides IT resources like laptops, mobile-phones, web-mail services, local network access etc.

A new initiative is taken for **Central Services** where ideas are tested with project based internships. This project is positioned for research and development of certain processes within the management team of OCS-Consulting B.V. called **Internships**. With Internships OCS-Consulting B.V. gives opportunities to students looking for graduation or internship projects to research on topics of specialized interest for the company.

3. Project Definition

In this chapter the graduation project- **Web-Application for managing clientele information in OCS-Consulting** is described and defined in terms of its context and what it is meant to acheive. Further the research component of the project is described as the Research Topic and its associated uncertainties as questions.

3.1 Project Background

This project is initiated by OCS-Consulting B.V. located in 's-Hertogenbosch, The Netherlands to better manage, analyze and investigate thier clientele information. Their business involves supplying tools and services like on-site staff secondment, consultancy and infrastructure support services for corporations and small businesses with expertise in fields of Project Management, Business Analysis, Business Intelligence, Testing and developing technologies with SAS® Software. The company stays specialized in the market as both supplier and service provider of the SAS® Software to these corporates and small businesses along with maintaining their reputation as a provider of quality, flexibility, accountability in the delivery of fit-for-purpose solutions to their clientele. To further improve their services, OCS-Consulting decided to start with a project-based approach to managing this internal process of handling clientele assignments and the information that comes from them.

Clientele assignments are services provided by OCS-Consulting B.V. under legally binding contracts. These contracts hold information about their clients and the terms of the services provided by OCS-Consulting. Further, more information is stored in spreadsheets like duration of the contract and its number, consultants assigned etc. The internal process of handling clientele information on management reports that provide an overview of all assignments is done with spreadsheets. Further, contracts are created in MS-Word.

3.2 Project Objective and Desired Situation

With its growth over time the company now finds problems with managing its clientele information, that they need to take measures to solve them. Firstly, manual handling of these assignments involves paperwork and the use of spreadsheets which can be error-prone and tedious. To an extent this can be effective but as the company grows this becomes challenging to maintain. Secondly, without a standardized system, the consultants at OCS-Consulting device their own method of managing their assignments. This creates difficulty for management to keep track of the all assignments efficiently. Further, variation as to how clientele information documents are made can result into the problem of diminished utility over the data about their clients, creating difficulty for later reference.

The objective of the project is to create an efficient system of managing their clientele information using a data driven web-application. The company takes a project-based approach to purpose this as an opportunity to investigate how to efficiently record their clientele assignments and standardize the process within the company. Further, they want to investigate if this data holds any valuable information when subjected to a business intelligence or a data-visualization tool. Specifically, the company wants to know if the web-application developed for this purpose can contribute to finding valuable information, ease of reference and a more efficient process.

3.3 Research Topic

To work in a structured and targeted manner, the project is represented by a Research Topic and its associated uncertainties in the form of questions. The desired situation will be achieved when the discussion on the Research Topic is concluded.

The Research Topic is as follows:

To develop a customized database driven web-application and evaluate if it can provide business intelligence for managing consulting services in OCS-Consulting B.V.

The project involves answering certain questions to remove the uncertainties associated with the Research Topic. These questions are mentioned below:

1. How is clientele information managed within OCS-Consulting B.V. and how does it affect its core business?

2. What issues do the stakeholders find with using spreadsheets for administrative purposes?

3. What is the most suitable strategy to develop a web-application for managing clientele assignments in OCS-Consulting B.V.?

4. What is the most suitable method to collect user reviews of the solution(s) in OCS-Consulting B.V.?

5. What is the most suitable strategy to establish stakeholder acceptance of the solution(s) in OCS-Consulting B.V.?

6. What business intelligence can clientele information provide for OCS-Consulting B.V.?

7. What are the benefits of adopting custom built applications in terms of achieving organization goals?

8. How does a solution from the market compare with the requested custom-built web-application?

9. What business intelligence can the custom web-application along with a data visualization tool provide for OCS-Consulting B.V.?

3.4 Project Scope

The purpose of this graduation project is to find out whether using a custom-built web-application for managing clientele information in OCS-Consulting B.V. is a good method. To reach a conclusive analysis this project has nine underlying uncertainties represented in the form of questions which need to be answered. Also, a web-application needs to be developed.

The basic functionality of the web-application is to receive information from its users, store it in a database and then subject it to a Business Intelligence (BI) tool. Due to fixed start and end dates of the project, requirements from users and research are prioritized for the Alpha Functional Model and Beta Functional Model in the second and third stage. If certain requirements from users and research are beyond the basic functionality of the application, then they are not within the highest priority requirement(s) of this project.

The scope of this project is as follows:

- Meeting the highest priority requirement(s) set for the web-application custom-built for Owner.
- Gathering requirements, taking feedback and evaluating results by holding open and closed interviews with Steering Committee and Project Assurance.
- Delivering a Graduating Process Report.
- Demonstrating web-application prototypes for evaluation.
- A Final Presentation to conclude the project.

4. Research Method and Approach

The project is planned within the period from August 27th, 2018 to February 1st ,2019. It is divided into five stages. Further, the project also uses the five methods of DOT Framework i.e. Field, Library, Workshop, Lab and Showroom [2] and these methods are used throughout the project to conduct research over the known uncertainties.

Stage 1- The Planning.

The first stage is when the Project Plan is made, its drafts are delivered for review and finally submitted after being approved by Steering Committee. Within this stage the project is planned, scoped and better acquainted with all involved parties. Further, the end of this stage is marked by the visit of the University Tutor to the company to meet the Company Tutor and discuss about the project and the plan.

In Stage 2 the questions 1 and 2 are answered.

Stage 2- Building Alpha Functional Model.

The second stage takes the longest time within the project and it involves these phases:

- Phase 1: Gathering the requirements by holding open and/or closed interviews with the involved stakeholders.
- Phase 2: Prioritizing these requirements by MoSCoW method [3] based on the scope of the project, to be mentioned in the Graduating Process Report.
- Phase 3: Designing the application and the database model using SCRUM methodology [4].
- Phase 4: Creating the web-application using SCRUM methodology.
- Phase 5: Testing and implementing the web-application with the involved stakeholders for feedback and approval.

This stage uses the WATERFALL model [5] because the previous phases need to be finished first before moving on to the next phase. Secondly, the methodology planned for Phase 3 and Phase 4 is SCRUM. This way the application can be developed efficiently by avoiding any scope-creep and regularly updating key stakeholder-Company Tutor.

Further, in Stage 2 the questions 3 and 4 are answered along with sharing the subsequent results in the Graduating Process Report draft 1. The first draft is delivered to University Tutor for feedback.

Stage 3- Building Beta Functional Model.

The third stage is shorter than the second stage in the project life cycle and it involves these phases:

- Phase 1: Gathering requirements by researching known practices with organizing clientele information, its potential for business intelligence and the appropriate BI tooling to be used.
- Phase 2: Prioritizing these requirements by MoSCoW method based on the scope of the project to be mentioned in the Graduating Process Report.
- Phase 3: Designing the application and the database model using AGILE methodology with SCRUM.
- Phase 4: Creating the web-application using AGILE methodology.
- Phase 5: Testing and Implementing the web-application with the involved stakeholders for feedback and approval.

This stage uses the WATERFALL methodology because the previous phases need to be finished first before moving on to the next phase. Secondly, the methodology planned for Phase 3 and Phase 4 is SCRUM. This way the application can be developed efficiently by avoiding any scope-creep and regularly updating key stakeholder-Company Tutor.

Further, in Stage 3 the questions 5, 6 and 7 are answered along with sharing the subsequent results and a recommendation in the Graduating Process Report draft 2. The second draft is then delivered to University Tutor for feedback.

Stage 4: Modifying of the web-application to connect a BI Tool and analyse the data.

The fourth stage is of the same duration as the third stage and it involves these phases:

- Phase 1: Establish integration of the BI Tool with the application.
- Phase 2: Investigate the data for BI insights with SCRUM methodology.
- Phase 3: Create visualization of any interesting trends within the data with SCRUM methodology.
- Phase 4: Testing and implementing the solution for approval from the involved stakeholder.

This stage uses the WATERFALL methodology because the previous phases need to be finished first before moving on to the next phase. Secondly, the methodology planned for Phase 2 and Phase 3 is SCRUM. This way the application can be developed efficiently by avoiding any scope-creep and regularly updating key stakeholder-Company Tutor. Questions 8 and 9 are answered in this stage.

Stage 5: Final Evaluation Phase.

In this stage, the project is evaluated. The Graduating Process Report is submitted, and the project is showcased to a Jury on the date of the Final Presentation. A twenty-minute PowerPoint presentation and a ten-minute demonstration is used for the showcase. Further, results drawn from Stage 4 are also demonstrated in the Final Presentation.

5. Project Conditions

5.1 Project Budget

The budget for this project is determined as the maximum number of working hours possible in ninety working days. The number of hours assigned by Steering Committee to this project is between the dates of September 3rd, 2018 and February 8th, 2019, giving it an official budget of 720 hours.

Working Days	90 (days)
Hours per Working Day	8 hours
Total Hours	720 hours

5.2 Required Resources

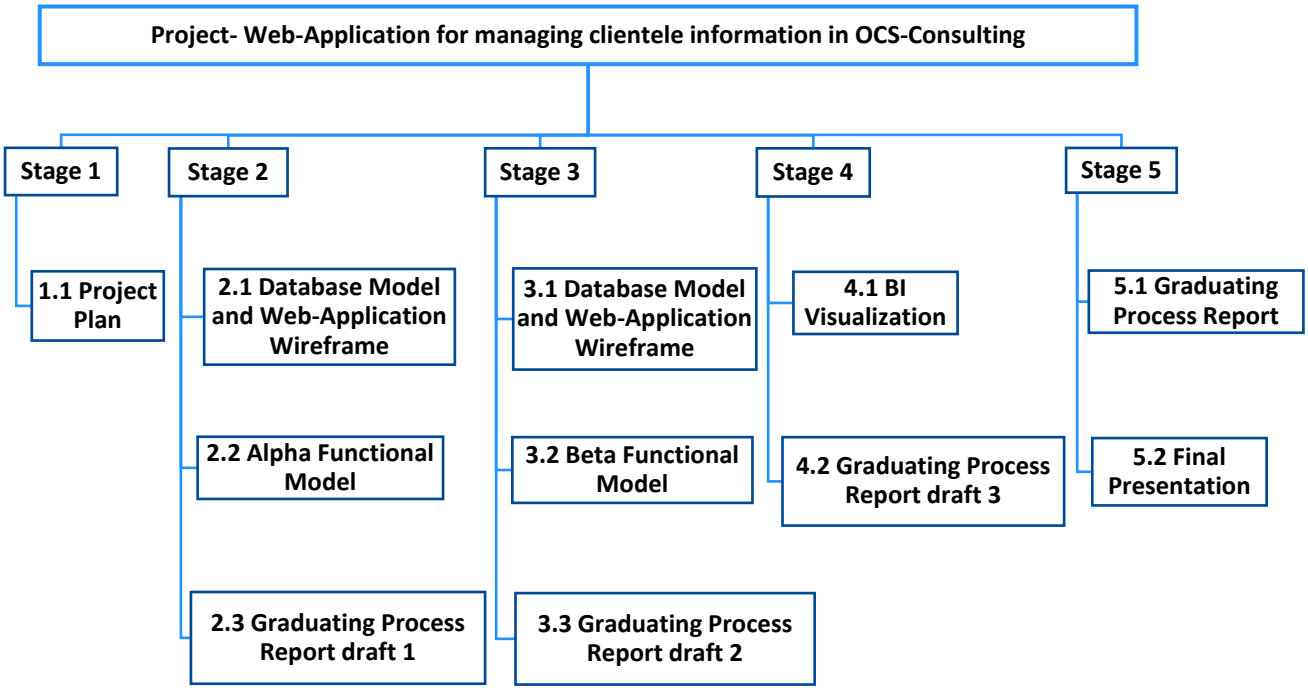
Table with required resources at project level.

Resource	**Provided By**
Laptop	OCS-Consulting
Workplace	OCS-Consulting
Communication Possibilities with key-stakeholders	OCS-Consulting
Support within project	OCS-Consulting and Fontys

5.3 Dependencies and Preconditions

To make this project successful, there are certain dependencies and conditions. For example, there must be opportunities for communication with various key stakeholders, to be able to process the requirements and the solutions offered. There must also be the possibility to request and find support from Company Tutor. It is also assumed that a laptop and a workplace are available within the timeframe of the project.

6. Work Breakdown Structure



WORK BREAKDOWN STRUCTURE	DESCRIPTION
1.1 Project Plan	This document articulates the relevant information with initiating the project, so that it can be managed in a controlled way. It aims to define the project, serve as a basis for its management and direct the project to success through communication and planning.
2.1 Database Model and Web-Application Wireframe	In Stage 2, the **Database Model** and the **Web-Application Wireframe** will be developed based on the user requirements presented by the Owner. The **Database Model** is an Entity Relationship Diagram (ERD) of a database that drives the Alpha Functional Model and the **Web-Application Wireframe** is its non-functional prototype. Both these concepts will be made using the appropriate tools and software programs. Reasons will be provided for using each tool to answer why it was suitable after considering enough alternatives that are possible within that timeframe.
2.2 Alpha Functional Model	In Stage 2, the **Alpha Functional Model** will be developed. It will have a focus on meeting the highest priority requirements achievable within the deadlines of Stage 2. These requirements will be gathered from the Owner before initiating its development. The tools selected for its development will be justified by providing appropriate reasoning, after considering enough alternatives.
2.3 Graduating Process Report draft 1	This document is the first draft of the **Graduating Process Report** to be delivered in Stage 2. Following are the expectations set for this draft: 1. Front page, Table of Contents, Chapter 2: About the Company and Chapter 3: Assignment Overview, References and Literature, and Attachments- Appendix A:

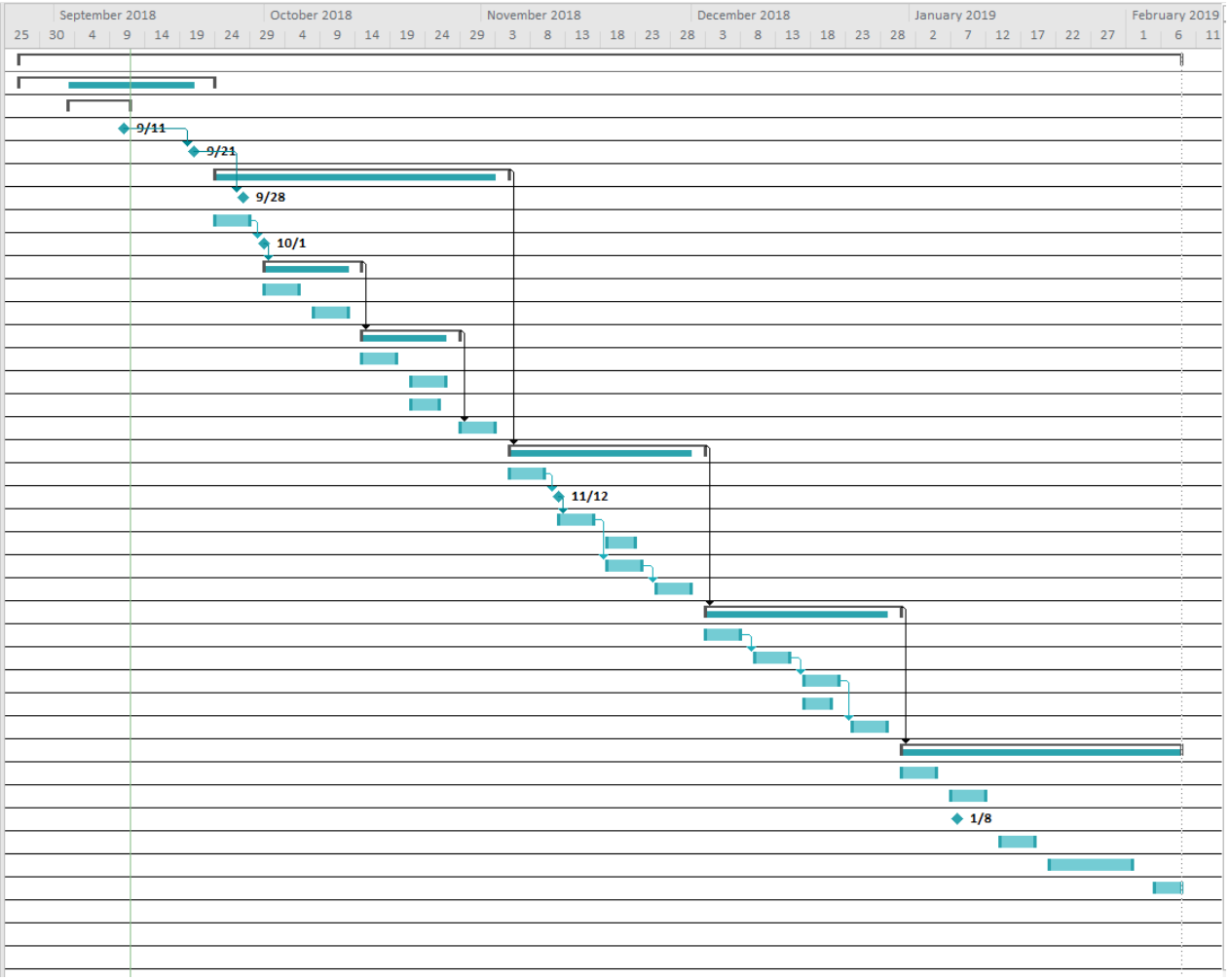
	Project Survey and Appendix B: Project Plan, along with an approximate length of each chapter. 2. Providing a summary of the requirements gathered from Owner (along with explaining how and why it was conducted) in Chapter 4: Process and Results. 3. Specifying these requirements gathered from Owner (by using the MoSCow method) in Appendix C – Company Report. 4. Providing a summary of the feedback received from Owner on **Alpha Functional Model** in Chapter 4: Process and Results (along with explaining how and why it was built). 5. Answering questions 1, 2, 3, and 4 in Chapter 5: Discussion.
3.1 Database Model and Web-Application Wireframe	In Stage 3, the **Database Model** and the **Web-Application Wireframe** will be developed based on research and exploration in the field of organizing clientele information. The **Database Model** (Entity Relationship Diagram) and the **Web-Application Wireframe** will be made using the tool(s) and software program(s) that can illustrate the necessary functionality of Beta Functional Model. The tools or software programs to be used will be justified with logical reasoning after considering enough alternatives.
3.2 Beta Functional Model	In Stage 3, the **Beta Functional Model** will be developed. It will have the focus of meeting the highest priority requirements achievable within the deadlines of Stage 3. These requirements will be gathered based on the available information about consulting businesses, how they manage their clientele information with online/offline software applications and/or their best-practices in the field. Appropriate tool(s) will be used for its development. The tools selected for its development will be justified by providing clear reasons that state the contextual implication of being the most appropriate for the development of Beta Functional Model after considering multiple alternatives.
3.3 Graduating Process Report draft 2	This document is the second draft of the **Graduating Process Report** to be delivered in Stage 3. Following are the expectations set for this draft: 1. Incorporating feedback received from University Tutor on **Graduating Process Report draft 1** and updating the relevant chapters. 2. Consolidating the requirements gathered from Owner and the requirements gathered from available information in the field of organizing clientele information (along with explaining of how and why it was conducted) in Chapter 4: Process and Results. 3. Specifying these requirements (by using the MoSCow method) in Appendix C – Company Report. 4. Providing a summary of the feedback received from Owner on **Beta Functional Model** in Chapter 4: Process and Results (along with explaining how and why it was built). 5. Answering question 5, 6 and 7 in Chapter 5: Discussion.
4.1 BI Visualization	In Stage 4, the web-application's database will be connected to a suitable BI/data visualization tool to generate any latent insights from the data.

4.2 Graduating Process Report draft 3	This document is the final draft of the **Graduating Process Report** to be delivered in Stage 4. Following are the expectations set for this draft: 1. Incorporating feedback received from the University Tutor on the **Graduating Process Report draft 2** and updating the relevant chapters. 2. Providing a summary of the results drawn from connecting the database of the **Beta Functional Model** with a suitable BI tool and the insights from the **BI Visualization.** 3. Providing the comprehensive results drawn from the **BI Visualization** of the data in Appendix C - Company Report. This also includes the details to answer how and why the data visualizations were developed. 4. Answering questions 8 and 9 in Chapter 5: Discussions. 5. Clearing the uncertainties associated with the main research topic in Chapter 6: Conclusion and Recommendation. An uncertainty could be the objective of solving the problems with the developed web-application. Another uncertainty could be the requirement for further research and time investment in an unknown direction. 6. Sharing the overall experience with the project, changes the milestones set within the Project Survey like whether they were achieved and if they provide any teachable moments.
5.1 Graduating Process Report	This document is the final report made for the entire project. It serves as reference and as a proof of the project's successful completion. This document can be used to apply the development processes and the results from doing the project. It can also be used to share why certain decisions were made. The **Graduating Process Report** also shares the following aspects besides the research questions which are: • Justification of certain tool(s) used to create the database models and web-applications. • Evaluation of differences between the two web-application models.
5.2 Final Presentation	The **Final Presentation** is the event of product showcase where the finalized web-application along with the **BI Visualization** is shown in a twenty-minute PowerPoint presentation about **Project- Web-application for managing clientele information in OCS-Consulting**.

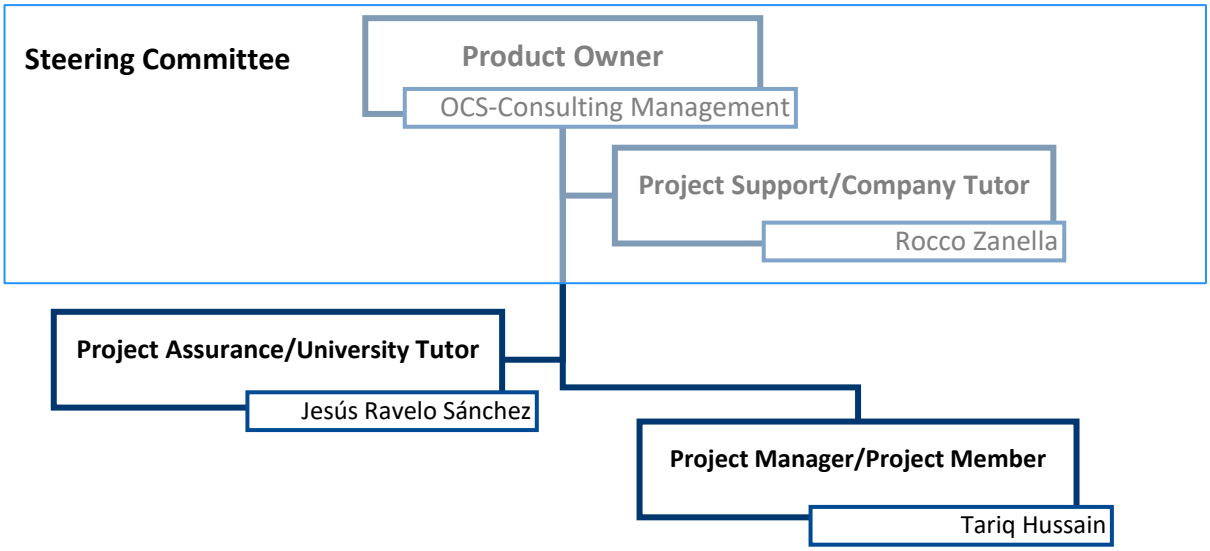
7. Global Planning

A plan showing a critical path is mentioned below:

	Task Mode	Task Name	Duration	Start	Finish
1		**Project- OCS-Consulting**	**120 days**	**Mon 8/27/18**	**Fri 2/8/19**
2		**Stage 1- Week 1 to Week 3**	**21 days**	**Mon 8/27/18**	**Sun 9/23/18**
3		**Project Plan- Draft 1 (Week-2)**	**7 days**	**Mon 9/3/18**	**Tue 9/11/18**
4		Project Plan- Draft 1 Submission	0 days	Tue 9/11/18	Tue 9/11/18
5		Project Plan Submission (Week-3)	0 days	Fri 9/21/18	Fri 9/21/18
6		**Stage 2- Week 4 to Week 9**	**31 days**	**Mon 9/24/18**	**Sun 11/4/18**
7		Project Plan Final (Week-4)	0 days	Fri 9/28/18	Fri 9/28/18
8		Phase 1: Requirements Gathering (Week-4)	5 days	Mon 9/24/18	Fri 9/28/18
9		Phase 2: Prioritize with MoSCow (Week-5)	0 days	Mon 10/1/18	Mon 10/1/18
10		**Phase 3: Design Sprint (Week-5 to Week-6)**	**11 days**	**Mon 10/1/18**	**Sun 10/14/18**
11		Week 5	5 days	Mon 10/1/18	Fri 10/5/18
12		Week 6	5 days	Mon 10/8/18	Fri 10/12/18
13		**Phase 4: Build Sprint (Week-7 to Week-8)**	**11 days**	**Mon 10/15/18**	**Sun 10/28/18**
14		Week 7	5 days	Mon 10/15/18	Fri 10/19/18
15		Week-8	5 days	Mon 10/22/18	Fri 10/26/18
16		First Thesis Draft (Week-8)	4 days	Mon 10/22/18	Thu 10/25/18
17		Phase 5: Test (Week-9)	5 days	Mon 10/29/18	Fri 11/2/18
18		**Stage 3- Week 10 to Week 13**	**21 days**	**Mon 11/5/18**	**Sun 12/2/18**
19		Phase 1: Requirements Gathering (Week-10)	5 days	Mon 11/5/18	Fri 11/9/18
20		Phase 2: Prioritize with MoSCow (Week-11)	0 days	Mon 11/12/18	Mon 11/12/18
21		Phase 3: Design Sprint (Week-11)	5 days	Mon 11/12/18	Fri 11/16/18
22		Second Thesis Draft	4 days	Mon 11/19/18	Thu 11/22/18
23		Phase 4: Build Sprint (Week-12)	5 days	Mon 11/19/18	Fri 11/23/18
24		Phase 5: Test (Week-13)	5 days	Mon 11/26/18	Fri 11/30/18
25		**Stage 4- Week 14 to Week 17**	**21 days**	**Mon 12/3/18**	**Sun 12/30/18**
26		Phase 1: BI Integration (Week-14)	5 days	Mon 12/3/18	Fri 12/7/18
27		Phase 2: Investigation (Week-15)	5 days	Mon 12/10/18	Fri 12/14/18
28		Phase 3: Visualization (Week-16)	5 days	Mon 12/17/18	Fri 12/21/18
29		Third Thesis Draft	4 days	Mon 12/17/18	Thu 12/20/18
30		Phase 4: Test (Week-17)	5 days	Mon 12/24/18	Fri 12/28/18
31		**Stage 5- Week 18 to Week 23**	**30 days**	**Mon 12/31/18**	**Fri 2/8/19**
32		Week 18	5 days	Mon 12/31/18	Fri 1/4/19
33		Week 19	5 days	Mon 1/7/19	Fri 1/11/19
34		Final Thesis Submission	0 days	Tue 1/8/19	Tue 1/8/19
35		Week 20	5 days	Mon 1/14/19	Fri 1/18/19
36		Graduation Proceedings- Week 21 to Week 22	10 days	Mon 1/21/19	Fri 2/1/19
37		Week 23	4 days	Tue 2/5/19	Fri 2/8/19



8. Project Organization Structure



Steering Committee/Product Owner:

Role Description	The Steering Committee consists of the Product Owner and the Project Support/Company Tutor roles. Product Owner is the primary users of the project intellectual properties. They provide the necessary information to initiate the project.
Project related tasks:	- Provide/receive information - Give access to relevant systems / environments - Provide resources - Assess the project

Steering Committee/Project Support/Company Tutor:

Role Description	The Steering Committee/Project Support/Company Tutor provides advisory support for the project. Here the project members can ask questions, request clarifications about the project and receive support in the form of guidance.
Project related tasks:	- Provide support to project members - Answer questions

Project Assurance/University Tutor:

Role Description	This role ensures the assurance that the project is going in the right direction. It also entails giving the “go ahead” or the “stop and redirect” signal to the project´s development through points of feedback as and when necessary.
Project related tasks:	- Support - Give the “go forth” or the “stop and redirect” sign on each milestone covered - Provide directional assurance on the project

Project Manager:

Role Description	The project manager is the primary contact person of the project group. The communication between the Steering Committee and the project members is made via the Project Manager. The Project Manager also directs the project, prioritizes requirements, ensures that deadlines are met, and agreements are fulfilled. As the Project Manager and the Project Members are the same person, this distinction is made for the sake of ease with project management.
Project related tasks:	- Communicate with the Steering Committee - Control the project members - Make a plan for the project - Schedule meetings - Honor existing commitments - Secure deadlines

Project Members:

Role Description	The project member roles entail activities that are performed in tandem with the activities that entail the Project Manager role on the project and ensure that the work is done well.
Project Related Tasks	- Perform the activities associated with the Project Member roles.

9. Project Control

9.1 Reporting

See the table below for information on the different project roles.

	Steering Committee	Project Support	Project Assurance	Project Manager
Project Proposal	C + E + D	I + A1	I + E + A2	I + A2
Project Plan	I	I + A1 + A2	I + A1 + E + A2	C + E + D
Project: LOG BOOK		I + A1 + A2	I + A1	C + D + E
Database Model and Web-Application UID	I + E + A2	I + A1	I + A1	
Alpha Functional Model	I + E + A2	I + A1	I + A1	C + E + D
Beta Functional Model	I + E + A2	I + A1	I + A1	C + E + D
Graduating Process Report drafts		I + A1	I + A1 + E + A2	C + E + D
BI Visualization	I + E + A2	I + A1	I + A1	C + E + D
Graduating Process Report		I + A1	I + A1 + E + A2	C + E + D
Final Presentation		I + A1	I + A1 + E + A2	C + E + D

C: Create	A1: Advise	I: Receive Information
E: Evaluate	D: Distribute	A2: Approve

9.2 Progress Monitoring

The table below provides the information on the frequency of monitoring progress. See Attachment A: Communication Plan for details.

Consultation	**Present**	**Frequency**	**Target**	**Subject**
General Progress	Project Manager, Project Support & Project Assurance	1 x per week	Monitoring progress of the project.	Progress, Risks, Deadlines, Problems.
Project Plan Evaluation	Project Members, Project Support, Steering Committee, Project Assurance	Delivery Project Plan	Evaluate the Project Plan and ensure success of the project.	Progress and guarantee Project Plan of correct quality.
Graduating Process Report drafts 1, 2 and 3 Evaluation	Project Members, Project Support, Project Assurance	3 Drafts	To ensure correct quality of the Graduating Process Report.	Feedback on content.
Final Presentation	Project Members, Project Support, Steering Committee, Project Assurance	Closing project	Evaluate the project.	Closing the project.

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ATTACHMENT A: Communication Plan

1. Objective(s)

1. To state the method and the channels of communication to be used.
2. To identify the main audiences.
3. To state the control methods that determine the frequency of communication to be used.

2. Target- University Tutor and Company Tutor

This clause declares that-

- **Company Tutor- Rocco Zanella (SAS Consultant- OCS-Consulting B.V.)** will communicate with **Student/Intern- Muhammad Tariq Arif Hussain** (**Fontys University of Applied Sciences/OCS-Consulting)** by Channel 1, Channel 2, Channel 3 and in person, during project whenever necessary.

- **University Tutor- Ravelo Sánchez,Jesús J.N.** will communicate with **Student/Intern- Muhammad Tariq Arif Hussain (Fontys University of Applied Sciences/OCS-Consulting)** by Channel 1 within two weeks and in person whenever necessary during project.

Channel 1 and Channel 2 are described below.

2.1 Channel 1: Email

NAME	**EMAIL**
Muhammad Tariq Arif Hussain (Student/Intern)	tariqarif.hussain@student.fontys.nl tariq.hussain@ocs-consulting.com
Rocco Zanella (Company Tutor)	rocco.zanella@ocs-consulting.com
Ravelo Sánchez,Jesús J.N. (University Tutor)	j.ravelosanchez@fontys.nl

2.2 Channel 2: Phone

NAME	**PHONE NUMBER**
Muhammad Tariq Arif Hussain (Student/Intern)	+31 6 39346400

2.3 Channel 3: Trello Board

Link:

https://trello.com/invite/b/ukDKWU0B/070bd6a552cc183812549bf1277e1b95/project-ocs-consulting

3. Communication Frequency:

Communication frequency between **Student/Intern-** Muhammad Tariq Arif Hussain and **University Tutor**- Ravelo Sánchez,Jesús J.N has been discussed and decided upon the following:

Progress Monitoring via **Channel 1: Email** shall be sent according to **Project Control** and in-person meetings will be scheduled whenever determined necessary by Student/Intern**.**

ATTACHMENT B: Risk Management Analysis

1. Objective

This document will discuss the possible risks involved and the necessary control measures with **Project: Web-Application for managing clientele information for OCS-Consulting.**

2. Risk Analysis

Here, risks associated with this project and their impact on a qualitative scale shall be identified.

2.1 Qualitative Risk Analysis

A risk will be measured as Risk= Probability x Impact which can be decomposed into Probability (which is the likelihood) & Impact (loss/harm the risk can cause). The following abbreviations are used in the risk measurement:

- L= LOW
- M= MEDIUM
- H= HIGH

Probability

- High – Greater than 70% probability of occurrence
- Medium – Between 30% and 70% of occurrence
- Low- Below 30% of occurrence

Impact

- High – Risk that has the potential to greatly impact project schedule and performance.
- Medium – Risk that has the potential to slightly impact project schedule and performance.
- Low – Risk that has relatively little impact on schedule or performance.

2.2 Risks Identified & Breakdown Categories

Risk ID	**Task**- Risk Factor	**Probability x Impact**	**Risk Owner**	**Response**
1.	**Scheduling**- Scope of the project not going according to plan.	M x H	Project Manager	Control Measure 1
2.	**Strategic Analysis-** Unclear goals and objectives, lack of support and commitment from Steering Group and Project Assurance.	L x H	Project Manager	Control Measure 2
3.	**Scope Analysis-** Impossibility/difficulty to meet certain requirement(s) within set deadlines.	L x H	Project Manager	Control Measure 3
4.	**Project Manager and Project Member-** Project Manager and/or Project Member without the right skill-set.	L x H	Steering Committee	Control Measure 4 and/or Control Measure 5

3. Control Measures

In this chapter, the control and preventive measures for the risks mentioned in the previous chapter.

Control Measure ID	Description
1.	• Priority setting of deliverables. • Mockup development phases (including training) in off-budget hours. • Monitor time-frame of mockup development phases in off-budget hours to create a plan with soft-deadlines. • Compare with Global Planning and declare to Steering Committee the possibility or impossibility of meeting the requirement(s) within set deadlines. • Meet soft deadlines set within a maximum of four days before actual deadlines fixed with the Global Planning. • Project Manager takes Project Control.
2.	• Establish a communication strategy with Steering Group and Project Assurance to change the scope of the project according to Project Manager after a maximum tolerance of two weeks.
3.	• Analyse and report any form of data discrepancy and tampering of the outputs. • Describe the situation to Steering Committee. • Upon agreement with Project Support, device solutions in accordance with Project Assurance.
4.	• Update Project: LOG BOOK which contains daily functions performed by Project Manager and Project Member and plan tasks in advance of at least one week and share it with Project Support and Project Assurance. • Incorporate advice.
5	• Train to acquire management skills like facilitating meetings, risk management, handling different stakeholders. • Adapt Process according to available know-how.

4. Conclusion

The number of identified risks involved in this project here is on a pre-emptive basis and other unknown risks need to be tracked, monitored and reported throughout the project. All changes in the project encountered during sprints while implementing various software solutions will be analyzed for any risk it may pose.