#### Dedication

#### Acknowledgments

#### Contents

$\mathbf{D}$	edica	tion		2
A	cknov	wledgn	nents	3
1	Gen	eral F	ramework of the Project	10
	1.1	Intro	${f duction}$	11
	1.2	Over	view of the Host Organization	11
	1.3		entation of the Project Context	
		1.3.1	Problem Statement	11
		1.3.2	Existing Solutions	11
		1.3.3	Proposed Solution	11
	1.4	$\mathbf{Meth}$	odology	11
		1.4.1	Agile Approach	11
		1.4.2	Comparison of Agile Methods	
		1.4.3	Scrum Framework	11
	1.5	$\operatorname{Mod}\epsilon$	eling Language	11
		1.5.1	Definition	
		1.5.2	UML Overview	11
	1.6	Conc	${f lusion}$	
2	Pro	ject In	nitiation	12
	2.1	$\mathbf{Intro}$	${f duction}$	12
	2.2	Softw	vare as a Service (SaaS)	12
	2.3	Analy	ysis and Specification of Requirements	
		2.3.1	Identification of Actors	12
		2.3.2	Identification of Requirements	12
	2.4	Proje	ect Management with Scrum	12
		2.4.1	Scrum Roles	12
		2.4.2	Product Backlog	12
		2.4.3	Global Use Case Diagram	
		2.4.4	Sprint Planning	
	2.5	Techr	nological Architecture of the Project	12

CONTENTS 5

	$2.6 \\ 2.7$	Tools and Environment 1   Conclusion 1
3	Stu	dy and Implementation of Sprint I: Infrastructure Setup 1
•	3.1	Introduction
	3.2	Sprint Planning
		3.2.1 Objectives of Sprint I
		3.2.2 Backlog of Sprint I
	3.3	Technologies and Tools Used
		3.3.1 Tool 1
		3.3.2 Tool 2
	3.4	Deliverables of Sprint I
		3.4.1 Milestone 1
		3.4.2 Milestone 2
		3.4.3 Milestone 3
	3.5	Retrospective of Sprint I
	3.6	Conclusion
4	Stu	dy and Implementation of Sprint II: Authentication &
	Lan	ding Page 14
	4.1	Introduction
	4.2	Sprint Planning
		4.2.1 Objectives of Sprint II
		4.2.2 Backlog of Sprint II
	4.3	Technologies and Tools Used
		4.3.1 Tool 1
		4.3.2 Tool 2
	4.4	Deliverables of Sprint II
		4.4.1 Milestone 1
		4.4.2 Milestone 2
		4.4.3 Milestone 3
	4.5	Retrospective of Sprint II
	4.6	Conclusion
5	Stu	dy and Implementation of Sprint III: Project Manage-
	mer	nt 1
	5.1	Introduction
	5.2	Sprint Planning
		5.2.1 Objectives of Sprint III
		5.2.2 Backlog of Sprint III
	5.3	Technologies and Tools Used

CONTENTS 6

		5.3.1 Tool 1
		5.3.2 Tool 2
	5.4	Deliverables of Sprint III
		5.4.1 Milestone 1
		5.4.2 Milestone 2
		5.4.3 Milestone 3
	5.5	Retrospective of Sprint III
	5.6	<b>Conclusion</b>
6	Stu	dy and Implementation of Sprint IV: Diagram Manage-
	men	nt & Workspace 16
	6.1	<b>Introduction</b>
	6.2	Sprint Planning
		6.2.1 Objectives of Sprint IV
		6.2.2 Backlog of Sprint IV
	6.3	Technologies and Tools Used
		6.3.1 Tool 1
		6.3.2 Tool 2
	6.4	Deliverables of Sprint IV
		6.4.1 Milestone 1
		6.4.2 Milestone 2
		6.4.3 Milestone 3
	6.5	Retrospective of Sprint IV
	6.6	<b>Conclusion</b>
7	Stu	dy and Implementation of Sprint V: Community Inter-
	acti	on & Profiles 17
	7.1	<b>Introduction</b>
	7.2	Sprint Planning
		7.2.1 Objectives of Sprint V
		7.2.2 Backlog of Sprint V
	7.3	Technologies and Tools Used
		7.3.1 Tool 1
		7.3.2 Tool 2
	7.4	Deliverables of Sprint V
		7.4.1 Milestone 1
		7.4.2 Milestone 2
		7.4.3 Milestone 3
	7.5	Retrospective of Sprint V
	7.6	Conclusion

CONTENTS 7

8	Stu	dy and Implementation of Sprint VI: Administration 18	3
	8.1	Introduction	3
	8.2	Sprint Planning	3
		8.2.1 Objectives of Sprint VI	
		8.2.2 Backlog of Sprint VI	3
	8.3	Technologies and Tools Used	3
		8.3.1 Tool 1	3
		8.3.2 Tool 2	3
	8.4	Deliverables of Sprint VI	3
		8.4.1 Milestone 1	3
		8.4.2 Milestone 2	3
		8.4.3 Milestone 3	3
	8.5	Retrospective of Sprint VI	3
	8.6	<b>Conclusion</b>	3
9	Gen	eral Conclusion	9
	9.1	Summary of Achievements	9
	9.2	Challenges Faced	9
	9.3	Future Perspectives	9
10	Wel	pography 20	)
		References	Э
		Useful Links	J

## List of Figures

#### List of Tables

#### General Framework of the Project

- 1.1 Introduction
- 1.2 Overview of the Host Organization
- 1.3 Presentation of the Project Context
- 1.3.1 Problem Statement
- 1.3.2 Existing Solutions
- 1.3.3 Proposed Solution
- 1.3.3.1 Use of PlantUML (if applicable)
- 1.4 Methodology
- 1.4.1 Agile Approach
- 1.4.2 Comparison of Agile Methods
- 1.4.3 Scrum Framework
- 1.4.3.1 Key Principles of Scrum
- 1.4.3.2 Roles
- 1.4.3.3 Events
- 1.4.3.4 Artifacts
- 1.5 Modeling Language
- 1.5.1 Definition
- 1.5.2 UML Overview
- 1.6 Conclusion

#### **Project Initiation**

- 2.1 Introduction
- 2.2 Software as a Service (SaaS)
- 2.3 Analysis and Specification of Requirements
- 2.3.1 Identification of Actors
- 2.3.2 Identification of Requirements
- 2.3.2.1 Functional Requirements
- 2.3.2.2 Non-Functional Requirements
- 2.4 Project Management with Scrum
- 2.4.1 Scrum Roles
- 2.4.2 Product Backlog
- 2.4.3 Global Use Case Diagram
- 2.4.4 Sprint Planning
- 2.5 Technological Architecture of the Project
- 2.6 Tools and Environment
- 2.7 Conclusion

## Study and Implementation of Sprint I: Infrastructure Setup

${\bf Contents}$		
1.1	Introduction	
1.2	Overview of the Host Organization	
1.3	Presentation of the Project Context	
	1.3.1 Problem Statement	
	1.3.2 Existing Solutions	
	1.3.3 Proposed Solution	
1.4	Methodology	
	1.4.1 Agile Approach	
	1.4.2 Comparison of Agile Methods	
	1.4.3 Scrum Framework	
1.5	Modeling Language	
	1.5.1 Definition	
	1.5.2 UML Overview	
1.6	Conclusion	

#### CHAPTER 3. STUDY AND IMPLEMENTATION OF SPRINT I: INFRASTRUCTURE SETUP 14

- 3.1 Introduction
- 3.2 Sprint Planning
- 3.2.1 Objectives of Sprint I
- 3.2.2 Backlog of Sprint I
- 3.3 Technologies and Tools Used
- 3.3.1 Tool 1
- 3.3.2 Tool 2
- 3.4 Deliverables of Sprint I
- 3.4.1 Milestone 1
- 3.4.2 Milestone 2
- 3.4.3 Milestone 3
- 3.5 Retrospective of Sprint I
- 3.6 Conclusion

## Study and Implementation of Sprint II: Authentication & Landing Page

Contents		
2.1	Introduction	
2.2	Software as a Service (SaaS)	
2.3	Analysis and Specification of Requirements 12	
	2.3.1 Identification of Actors	
	2.3.2 Identification of Requirements	
2.4	Project Management with Scrum 12	
	2.4.1 Scrum Roles	
	2.4.2 Product Backlog	
	$2.4.3  \text{Global Use Case Diagram}  \dots  \dots  12$	
	2.4.4 Sprint Planning	
2.5	Technological Architecture of the Project 12	
2.6	Tools and Environment	
2.7	Conclusion	

#### CHAPTER 4. STUDY AND IMPLEMENTATION OF SPRINT II: AUTHENTICATION & LANDING PAGE 16

- 4.1 Introduction
- 4.2 Sprint Planning
- 4.2.1 Objectives of Sprint II
- 4.2.2 Backlog of Sprint II
- 4.3 Technologies and Tools Used
- 4.3.1 Tool 1
- 4.3.2 Tool 2
- 4.4 Deliverables of Sprint II
- 4.4.1 Milestone 1
- 4.4.2 Milestone 2
- 4.4.3 Milestone 3
- 4.5 Retrospective of Sprint II
- 4.6 Conclusion

## Study and Implementation of Sprint III: Project Management

Contents		
3.1	Introduction	
3.2	Sprint Planning	
	3.2.1 Objectives of Sprint I	
	3.2.2 Backlog of Sprint I	
3.3	Technologies and Tools Used	
	3.3.1 Tool 1	
	3.3.2 Tool 2	
3.4	Deliverables of Sprint I	
	3.4.1 Milestone 1	
	3.4.2 Milestone 2	
	3.4.3 Milestone 3	
3.5	Retrospective of Sprint I	
3.6	Conclusion	

#### CHAPTER 5. STUDY AND IMPLEMENTATION OF SPRINT III: PROJECT MANAGEMENT 18

- 5.1 Introduction
- 5.2 Sprint Planning
- 5.2.1 Objectives of Sprint III
- 5.2.2 Backlog of Sprint III
- 5.3 Technologies and Tools Used
- 5.3.1 Tool 1
- 5.3.2 Tool 2
- 5.4 Deliverables of Sprint III
- 5.4.1 Milestone 1
- 5.4.2 Milestone 2
- 5.4.3 Milestone 3
- 5.5 Retrospective of Sprint III
- 5.6 Conclusion

# Study and Implementation of Sprint IV: Diagram Management & Workspace

Contents	
4.1	Introduction
4.2	Sprint Planning
	4.2.1 Objectives of Sprint II
	4.2.2 Backlog of Sprint II
4.3	Technologies and Tools Used
	4.3.1 Tool 1
	4.3.2 Tool 2
4.4	Deliverables of Sprint II
	4.4.1 Milestone 1
	4.4.2 Milestone 2
	4.4.3 Milestone 3
4.5	Retrospective of Sprint II
4.6	Conclusion

#### CHAPTER 6. STUDY AND IMPLEMENTATION OF SPRINT IV: DIAGRAM MANAGEMENT & WORKSPACE 20

- 6.1 Introduction
- 6.2 Sprint Planning
- 6.2.1 Objectives of Sprint IV
- 6.2.2 Backlog of Sprint IV
- 6.3 Technologies and Tools Used
- 6.3.1 Tool 1
- 6.3.2 Tool 2
- 6.4 Deliverables of Sprint IV
- 6.4.1 Milestone 1
- 6.4.2 Milestone 2
- 6.4.3 Milestone 3
- 6.5 Retrospective of Sprint IV
- 6.6 Conclusion

# Study and Implementation of Sprint V: Community Interaction & Profiles

Contents		
5.1	Introduction	
5.2	Sprint Planning	
	$5.2.1  \text{Objectives of Sprint III} \ \dots \ \dots \ 15$	
	5.2.2 Backlog of Sprint III	
5.3	Technologies and Tools Used	
	5.3.1 Tool 1	
	5.3.2 Tool 2	
5.4	Deliverables of Sprint III	
	$5.4.1  \text{Milestone 1}  \dots  \dots  \dots  15$	
	5.4.2 Milestone 2	
	$5.4.3  \text{Milestone 3}  \dots  \dots  15$	
5.5	Retrospective of Sprint III	
5.6	Conclusion	

#### CHAPTER 7. STUDY AND IMPLEMENTATION OF SPRINT V: COMMUNITY INTERACTION & PROFILES 22

#### 7.1 Introduction

- 7.2 Sprint Planning
- 7.2.1 Objectives of Sprint V
- 7.2.2 Backlog of Sprint V
- 7.3 Technologies and Tools Used
- 7.3.1 Tool 1
- 7.3.2 Tool 2
- 7.4 Deliverables of Sprint V
- 7.4.1 Milestone 1
- 7.4.2 Milestone 2
- 7.4.3 Milestone 3
- 7.5 Retrospective of Sprint V
- 7.6 Conclusion

## Study and Implementation of Sprint VI: Administration

Contents		
6.1	Introduction	.6
6.2	Sprint Planning	.6
	6.2.1 Objectives of Sprint IV	16
	6.2.2 Backlog of Sprint IV	16
6.3	Technologies and Tools Used	.6
	6.3.1 Tool 1	16
	6.3.2 Tool 2	16
6.4	Deliverables of Sprint IV	.6
	6.4.1 Milestone 1	16
	6.4.2 Milestone 2	16
	6.4.3 Milestone 3	16
6.5	Retrospective of Sprint IV	6
6.6	Conclusion	6

#### 8.1 Introduction

- 8.2 Sprint Planning
- 8.2.1 Objectives of Sprint VI
- 8.2.2 Backlog of Sprint VI
- 8.3 Technologies and Tools Used
- 8.3.1 Tool 1
- 8.3.2 Tool 2
- 8.4 Deliverables of Sprint VI
- 8.4.1 Milestone 1
- 8.4.2 Milestone 2
- 8.4.3 Milestone 3
- 8.5 Retrospective of Sprint VI
- 8.6 Conclusion

#### General Conclusion

- 9.1 Summary of Achievements
- 9.2 Challenges Faced
- 9.3 Future Perspectives

## Webography

- 10.1 References
- 10.2 Useful Links