

# **Capstone Project 1**

## **DEMARK - DECENTRALIZED MARKET**

Project Plan Document

Version: 1.1

CODE: DEMARK 1.0

Mentor: Man Nguyen Duc

**Team member:** 

Ha Truong Van

Dat Ngo Ha Van

Nhan Vo Hoang Quoc

Phuong Tran Nhat

#### INTERNATIONAL SCHOOL

# **Project Information**

Project acronym	DEMARK				
<b>Project Title</b>	DEMARK - Decentralized Market				
Start Date	Aug 31, 2018	End Date	Dec 10, 2018		
<b>Lead Institution</b>	International School, Du	y Tan University			
	Man Nguyen Duc				
Project Mentor & contact details	Email: mannd@duytan.	edu.vn			
	Tel: 0904 235 945				
Product Owner  Ha Truong Van					
Troduct Owner	uct Owner				
Con Marke	Scrum Master Phuong Tran Nhat				
Scrum Master					
	Name	Email	Tel		
	Ha Truong Van	vanha30111997@gmail.	0969356097		
Team members	Dat Ngo Ha Van	ngohavandat93ndc@gm ail.com	01288446176		
	Nhan Vo Hoang Quoc	quocnhan810@gmail.co m	01674559527		
	Phuong Tran Nhat	nhatphuongb1@gmail.co m	01692502010		

# **Project Plan Document**

<b>Document Title</b>	Project Plan Document		
<b>Reporting Period</b>	August, 2018		
	Name	Role	
	Nhan Vo Hoang Quoc	Team member	
Team Information	Ha Truong Van	Product owner & team member	
	Dat Ngo Ha Van	Team member	
	Phuong Tran Nhat	Scrum master & Team member	
Date	August 31, 2018	Filename	
			DEMARK_P ROJECT_PL AN_1.1.docx
Access	Project and Duy Tan University	ersity Program	

# **Document History**

	Document History		
Version Date Comments			
1.0	Sep 10, 2018	- Create the document	
1.1	Oct 1, 2018	- Official document	

## **Document Approvals**

The following signatures are required for approval of this document.

Man Nguyen Duc	Date:
Mentor	
Ha Truong Van	Date:
Product Owner	
Phuong Tran Nhat	Date:
Scrum Master	

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#### 1. Introduction

### 1.1. Purpose

The purpose of the Software Development Plan is to gather all information necessary to control the project. It describes the approach to the development of the software and is the top-level plan generated and used by managers to direct the development effort.

The following people use the Software Development Plan:

- The project manager uses it to plan the project schedule and resource needs and to track progress against the schedule.
- Project team members use it to understand what they need to do when they need to do it, and what other activities they are dependent upon.

### 1.2. Scope

This *Software Project Plan* describes the overall plan to be used by the **Demark** project, including the deployment of the product. The details of the individual iterations will be described in the Iteration Plans.

The plans as outlined in this document are based upon the product requirements as defined in the *Proposal Document*.

#### 1.3. References

For the Software Project Plan, the list of referenced artifacts includes: Proposal Document

Software Project Plan template from previous projects

## 2. Team Organization

#### 2.1. Team Information

Full Name	Phone	Email	Position
Man Nguyen Duc	0904 235 945	mannd@duytan.edu.vn	Mentor
Nhan Vo Hoang Quoc	0969356097	Quocnhan810@gmail.com	Member

Ha Truong Van	01288446176	vanha30111997@gmail.com	Product Owner, Member
Dat Ngo Ha Van	01674559527	ngohavandat93ndc@gmail.com	Member
Phuong Tran Nhat	01692502010	nhatphuongb1@gmail.com	Scrum Master, Member

# 2.2. Roles and Responsibilities

Role	Responsibility	Name/Title
Scrum Master	- Communicate the value of Scrum	Phuong Tran Nhat
	- Teach the organization on Scrum to maximize business value	TVIIAL
	- Attend all Scrum meetings	
	- Preserve the integrity and spirit of the Scrum framework	
	- Maintain the focus of the Team	
	- Make the Team aware of impediments and facilitate efforts to resolve them	
	- Serve as a coach and mentor to members of the Team	
	- Respectfully hold the Team, Product Owner and Stakeholders accountable for their commitments	
	- Continually work with the Team and business to find and implement improvements	
	- As a timekeeper	
	- Record team meeting	

Product Owner	- A spokesperson for the customer and needs to represent them	Ha Truong Van
Developer	<ul> <li>Responsible for quality</li> <li>Responsible for delivering the potentially shippable product of the Application each sprint</li> <li>Report progress based on the remaining time</li> <li>Self-organized</li> <li>Owns the Sprint backlog</li> </ul>	All members
Mentor	<ul> <li>Guide on the process.</li> <li>Monitoring all activities of Team.</li> <li>Help with anything.</li> <li>Reviews project documents</li> <li>Reviews product</li> </ul>	Mr. Man Nguyen Duc

## 3. Project Overview

### 3.1. Project Name

**DEMARK** - Decentralized Market

## 3.2. Project Duration

- The project will be started on Aug 31, 2018
- The project will be finished on *Dec 15*, 2018

## 3.3. Project Goal

- Finish the project within the scheduled timetable
- Finish the project within scheduled budget
- Finish the project with the same level of quality
- Finish the project within the specified guidelines
- Try to do as well as possible

## 3.4. Project Vision

Take to market a decentralized transaction platform that allows anyone to order and exchange the tokens that created by the university and use them for paying courses fee.

#### 3.5. Project Scope

- System running on website platform & Ethereum network.
- Consists of these functions:

#### Holder:

- Buy token
- Transfer token
- deposit
- Withdraw
- Transfer
- Request to submit token

#### Demark Manager

- Submit token
- Have all function of a Holder
- During time: 96 days

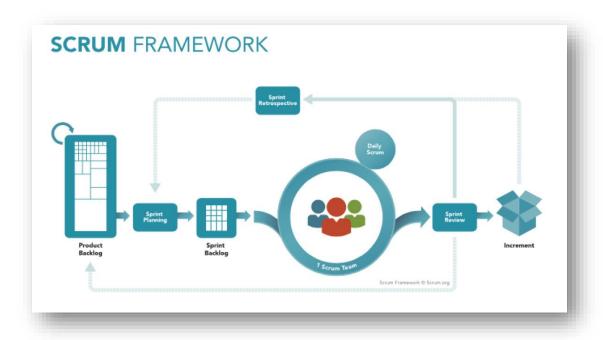
### **3.6.** Project Process

Scrum is a process framework that has been used to manage work on complex products since the early 1990s. Scrum is not a process, technique, or definitive method. Rather, it is a framework within which you can employ various processes and techniques. Scrum makes clear the relative efficacy of your product management and work techniques so that you can continuously improve the product, the team, and the working environment.

The Scrum framework consists of Scrum Teams and their associated roles, events, artifacts, and rules. Each component within the framework serves a specific purpose and is essential to Scrum's success and usage.

The rules of Scrum bind together the roles, events, and artifacts, governing the relationships and interaction between them. The rules of Scrum are described throughout the body of this document.

Specific tactics for using the Scrum framework vary and are described elsewhere.



## 3.7. System Development Environment

Operating system	Website Platform	
Database	Firebase	
Develop Tool	Visual Code	
Extension support	Meta Mask	
Framework/Library	<ul> <li>Reactjs, React Native, NodeJS</li> <li>Truffle, Ganache</li> <li>Web3JS</li> <li>Bootstrap 4</li> <li>Webpack</li> <li>Next.js</li> </ul>	
Language Programming	JavaScript, Solidity	

# 4. Time Management

## **4.1.** Milestone and Deliverables

No	Task name	Durati on	Start	Finish
1	Initial	1	Aug 31,	Sep
			2018	1,2018
1.1	Establish	1	Aug 31,	Sep
	project team		2018	1,2018
1	Start Up	16		
1.1	Project's	1	Sep 5,	Sep
	Kick-off		2018	5,2018
	Meeting			
1.2	Discuss about	2	Sep 6,	Sep 9,
	project idea		2018	2018
1.3	Create the	5	Sep 10,	Sep
	documents for		2018	15,2018
	project			
1.4	Research	8	Sep 16,	Sep 23,
	Technical		2018	2018
2	Development	7		
2.1	Sprint 1	14	Sep 24,	Oct 6,
			2018	2018
2.2	Sprint 2	14	Oct 8,	Oct 21,
			2018	2018
2.3	Sprint 3	14	Oct 23,	Nov 4,
			2018	2018
2.4	Sprint 4	14	Nov 6,	Nov 19,
			2018	2018
2.5	Sprint 5	14	Nov 21,	Dec 3,
			2018	2018
2.6	Sprint 6	7	Dec 4,	Dec 10,
			2018	2018
3	Integration of	3	Dec 11,	Dec13,
	project		2018	2018
	components			
4	Final Release	2	Dec 14,	Dec 15,
			2018	2018

Duration	99		
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# 4.2. Project Schedule

No	Task name	Duration	Start	Finish	
1	Initial	1	Aug 31, 2018	Sep 1,2018	
1.1	Establish project team	1	Aug 31, 2018	Sep 1,2018	Team
1	Start Up	16			
1.1	Project's Kick-off Meeting	1	Sep 5, 2018	Sep 5,2018	Team
1.2	Discuss about project idea	2	Sep 6, 2018	Sep 9, 2018	Team, mentor
1.3	Create the documents for the project	5	Sep 10, 2018	Sep 15,2018	Team
1.4	Research Technical	8	Sep 16, 2018	Sep 23, 2018	Team
2	Development	70			
2.1	Sprint 1	13	Sep 24, 2018	Oct 6, 2018	
2.1.1	Sprint Planning Meeting 1 & 2	1	Sep 24, 2018	Sep 24, 2018	Team
2.1.2	Development	11	Sep 25, 2018	Oct 5, 2018	Team

2.1.3	Sprint Review	0.5	Oct 6, 2018	Oct 6, 2018	Team, Mentor
2.1.4	Sprint Retrospective	0.5	Oct 6, 2018	Oct 6, 2018	Team
2.2	Sprint 2	14	Oct 8, 2018	Oct 21, 2018	
2.2.1	Sprint Planning Meeting 1 & 2	1	Oct 8, 2018	Oct 8, 2018	Team
2.2.2	Development	12	Oct 9, 2018	Oct 20, 2018	Team
2.2.3	Sprint Review	0.5	Oct 20, 2018	Oct 20, 2018	Team, Mentor
2.2.4	Sprint Retrospective	0.5	Oct 20, 2018	Oct 20, 2018	Team
2.3	Sprint 3	14	Oct 23, 2018	Nov 4, 2018	
2.3.1	Sprint Planning Meeting 1 & 2	1	Oct 23, 2018	Oct 23, 2018	Team
2.3.2	Development	12	Oct 24, 2018	Nov 3, 2018	Team
2.3.3	Sprint Review	0.5	Nov 4, 2018	Nov 4, 2018	Team, Mentor
2.3.4	Sprint Retrospective	0.5	Nov 4, 2018	Nov 4, 2018	Team,
2.4	Sprint 4	13	Nov 6, 2018	Nov 19, 2018	
2.4.1	Sprint Planning	1	Nov 6,	Nov 6,	Team

	Meeting 1 & 2		2018	2018	
2.4.2	Development	11	Nov 7, 2018	Nov 18, 2018	Team
2.4.3	Sprint Review	0.5	Nov 19, 2018	Nov 19, 2018	Team, Mentor
2.4.4	Sprint Retrospective	0.5	Nov 19, 2018	Nov 19, 2018	Team,
2.5	Sprint 5	13	Nov 21, 2018	Dec 3, 2018	
2.5.1	Sprint Planning Meeting 1 & 2	1	Nov 21, 2018	Nov 21, 2018	Team
2.5.2	Development	11	Nov 22, 2018	Dec 2, 2018	Team
2.5.3	Sprint Review	0.5	Dec 3, 2018	Dec 3, 2018	Team, Mentor
2.5.4	Sprint Retrospective	0.5	Dec 3, 2018	Dec 3, 2018	Team,
2.6	Sprint 6	7	Dec 4, 2018	Dec 10, 2018	
2.6.1	Sprint Planning Meeting 1 & 2	1	Dec 4, 2018	Dec 4, 2018	Team
2.6.2	Development	5	Dec 5, 2018	Dec 9, 2018	Team
2.6.3	Sprint Review	0.5	Dec 10, 2018	Dec 10, 2018	Team, Mentor
2.6.4	Sprint Retrospective	0.5	Dec 10,	Dec 10,	Team,

			2018	2018	
3	Integration of project components	3	Dec 11, 2018	Dec 13, 2018	Team
4	Final Release	2	Dec 14, 2018	Dec 15, 2018	Team, Mentor
	Duration	96			

## 5. Cost Estimation

#### **Cost Person / Hour**

Name	Role	Salary Rate
		(USD/Hour)
Phuong Tran Nhat	Team Member, Scrum Master	5
Ha Truong Van	Team Member	5
Nhan Nguyen Hoang Quoc	Team Member	5
Dat Nguyen Ha Van	Team Member	5

#### **Total Cost Estimate**

No.	Criteria	Value	Total (USD)
1	Working hours	3072 hours	15260 USD
2	Another cost (Break Tea, Lunch, Coffee)	16 USD / Day	2536 USD

	Total Cost	16896 USD

Description	Amount	Unit
Number of members	4	Person
Number of working hours per day	8	Hours
The cost per hour per member	5	USD
The duration of project	4	Months
The total working days	96	Days

The explanation for the table

Amount of working hours = 4 members \* 8 hours \* 96 days

# 6. Communication Management

Audience / Attendees	Topic / Deliverable	Frequency	Method
Scrum Master, Members	Daily meeting	Daily	Face to Face / Video Call / Slack Chat
Scrum Master, Members	Sprint Planning Meeting	When starting a sprint	Face to face
Scrum Master, Members, Mentor	Sprint Review Meeting	When finishing a sprint	Face to face

Scrum Master, Members	Sprint Retrospective	When the sprint review finish	Face to face
Scrum Master, Members	Individual Meeting	When need	Face to face, Message
Scrum Master, Members, Mentor	Working report, review problems	Once a week	Face to face

# 7. Risk Management

In this part, it contains several risks that could happen to the development team in the future. It also includes probability, severity and mitigation strategy for each risk.

Risk	Definition	Probability	Severity	<b>Mitigation Strategy</b>
Lack of coding experiences	All team members haven't worked with solidity programming language before.	Н	Н	Spend a lot of time for learning and training
Member conflict	All member can conflict with each other while we discuss something	M	L	All member must calm down, explain the ideas again and mentor support for a solution
Schedule not unified	Each member has a different schedule	Н	M	Working at night and weekend

Incorrect requirement	Developing the product which does not accord with requirements of the customer	Н	Н	It makes application can't run as the purpose
Behind schedule	During the development, members leave the project or have a trouble leading to project is delayed	Н	M	Ask to the help outside of the team. Increase hourworking