

**Capstone Project 1**

**DEMARK - DECENTRALIZED MARKET**

Project Plan Document

Version: 2.0

CODE: DEMARK 2.0

**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 | | | | |
| **Project Title** | DEMARK - Decentralized Market | | | | |
| **Start Date** | Aug 31, 2018 | | **End Date** | Dec 10, 2018 | |
| **Lead Institution** | International School, Duy Tan University | | | | |
| **Project Mentor & contact details** | Man Nguyen Duc  Email: mannd@duytan.edu.vn  Tel: 0904 235 945 | | | | |
| **Product Owner** | Ha Truong Van | | | | |
| **Scrum Master** | Phuong Tran Nhat | | | | |
| **Team members** | **Name** | **Email** | | | **Tel** |
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|  | Dat Ngo Ha Van | ngohavandat93ndc@gmail.com | | | 01288446176 |
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**Project Plan Document**

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| --- | --- | --- | --- |
| **Document Title** | Project Plan Document | | |
| **Reporting Period** | August, 2018 | | |
| **Team Information** | Name | Role |  |
|  | Nhan Vo Hoang Quoc | Team member |  |
|  | 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\_PROJECT\_PLAN\_1.1.docx |
| **Access** | Project and Duy Tan University 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  *Mentor* |  | Date: |
| Ha Truong Van  *Product Owner* |  | Date: |
| Phuong Tran Nhat  *Scrum Master* |  | Date: |

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1. **Introduction**
   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. **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. **References**

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

Software Project Plan template from previous projects

1. **Team Organization**
   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](about:blank) | 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 |

* 1. **Roles and Responsibilities**

|  |  |  |
| --- | --- | --- |
| **Role** | **Responsibility** | **Name/Title** |
| **Scrum Master** | * Communicate the value of Scrum * Teach the organization on Scrum to maximize business value * 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 | Phuong Tran Nhat |
| **Product Owner** | * A spokesperson for the customer and needs to represent them | Ha Truong Van |
| **Developer** | * Responsible for quality * Responsible for delivering the potentially shippable product of the Application each sprint * Report progress based on the remaining time * Self-organized * Owns the Sprint backlog | All members |
| **Mentor** | * Guide on the process. * Monitoring all activities of Team. * Help with anything. * Reviews project documents * Reviews product | Mr. Man Nguyen Duc |

1. **Project Overview**
   1. **Project Name**

DEMARK - Decentralized Market

* 1. **Project Duration**
* The project will be started on ***Aug 31, 2018***
* The project will be finished on ***Dec 15, 2018***
  1. **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
  1. **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.

* 1. **Project Scope**
* System running on website platform & Ethereum network.
* Consists of these functions:
* During time: 96 days
  1. **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.

Scrum Framework

* 1. **System Development Environment**

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

1. **Time Management**
   1. **Milestone and Deliverables**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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 |
| 1 | Start Up | 16 |  |  |
| 1.1 | Project’s Kick-off Meeting | 1 | Sep 5, 2018 | Sep 5,2018 |
| 1.2 | Discuss about project idea | 2 | Sep 6, 2018 | Sep 9, 2018 |
| 1.3 | Create the documents for project | 5 | Sep 10, 2018 | Sep 15,2018 |
| 1.4 | Research Technical | 8 | Sep 16, 2018 | Sep 23, 2018 |
| 2 | Development | 7 |  |  |
| *2.1* | *Sprint 1* | 14 | Sep 24, 2018 | Oct 6, 2018 |
| *2.2* | *Sprint 2* | 14 | Oct 8, 2018 | Oct 21, 2018 |
| *2.3* | *Sprint 3* | 14 | Oct 23, 2018 | Nov 4, 2018 |
| *2.4* | *Sprint 4* | 14 | Nov 6, 2018 | Nov 19, 2018 |
| *2.5* | *Sprint 5* | 14 | Nov 21, 2018 | Dec 3, 2018 |
| *2.6* | *Sprint 6* | 7 | Dec 4, 2018 | Dec 10, 2018 |
| 3 | Integration of project components | 3 | Dec 11, 2018 | Dec13, 2018 |
| 4 | Final Release | 2 | Dec 14, 2018 | Dec 15, 2018 |
|  | **Duration** | 99 |  |  |

* 1. **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 Meeting 1 & 2 | 1 | Nov 6, 2018 | Nov 6, 2018 | Team |
| 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, 2018 | Dec 10, 2018 | Team, |
| 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 |  |  |  |

1. **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

1. **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 |

1. **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** | **Mitigation Strategy** |
| Lack of coding experiences | All team members haven’t worked with solidity programming language before. | H | H | 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 | H | M | Working at night and weekend |
| Incorrect requirement | Developing the product which does not accord with requirements of the customer | H | H | 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 | H | M | Ask to the help outside of the team. Increase hour-working |