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| Capstone Project Document |

**Carrier Trading Center**

Report #1 – Project Plan

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| **Carrier Trading Center** | | |
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| **Project code** |  | |

**- Hanoi, 01/2017-**

# SIGNATURE PAGE

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# 1 Problem Definition

## Name of this Capstone Project

The official and formal project name is Carrier Trading Center. The product name is Carrier Trading Center.

## Problem Overview

### The Current System

There is no current system. The product is building from scratch as a new idea.

### The Proposed System

The main system will be a Website Management.

#### Client User Module

##### Goods owner module

* **Manage auction:**
* View bill of lading list: Goods owner can view bill of lading are auctioning list.
* View auction history list: Goods owner can view bill of lading history list.
* View bill of lading detail: Goods owner can view bill of lading detail.
* View carrier information: Goods owner can view carrier who is successful bidding.
* Register a new bill of lading: Goods owner can register a new bill of lading.
* Cancel: Goods owner can cancel bill of lading.
* **Manage profile:**
* Edit profile: Goods owner can edit their profile.
* Register: Goods owner can register an account and login to use some features of CTC.
* Change password/Forget password: Goods owner can change password or reset password to keep security.
* **Report:**
* Send report: Goods owner can send report to admin.
* View report list: Goods owner can view list of report.

##### Carrier module

* **Manage auction:**
* View bill of lading list: Carrier can view bill of lading are auctioning.
* View bill of lading history list: Carrier can view bill of lading history list.
* View bill of lading detail: Carrier can view bill of lading detail.
* Register a new bill of lading: Carrier can register a new bill of lading
* Cancel: Carrier can cancel auction.
* Manage profile
* Edit profile: Carrier can edit their profile.
* Register: Carrier can register an account and login to use some features of CTC.
* Change password/Forget password: Carrier can change password or reset password to keep security.
* Report
* Send report: Carrier can send report to admin.
* View report list: Carrier can view list of report.

#### Admin Module

* **Manage auction:**
* View bill of lading list detail: Admin can view bill of lading are auctioning.
* View bill of lading history list: Admin can view bill of lading history list.
* Search bill of lading: Admin can search bill of lading with types of goods, where to go, destination, receiving time, arrival time, transaction status. System will display all of project relate to keywords.
* View bill of lading detail: Admin can view bill of lading.
* View list of carrier who are auctioning
* **Manage user**
* Search user: Admin can search user with account name, email or phone number.
* View user profile: Admin can view user profile
* Edit user profile: Admin can edit user profile
* Active/Inactive user: Admin can set goods owner and carrier account to inactive or active.
* **Manage price list**
* View price list: Admin can view price list.
* Edit price list: Admin can edit price list.
* Search price: Admin can search price with type of goods, types of goods, where to go, destination, receiving time, arrival time.
* **Manage report**
* Search report: Admin can search report with report title.
* Send report: Admin can send report to users.
* View report list: Admin can view list of report.

### Boundaries of the System

The system under development of this Capstone Project will include:

- The Management Website

- All the process document involved

### Development Environment

Below is the list of hardware and software requirements needed for development environment:

**Hardware requirement:**

- Personal computers for developing with the recommended configuration: 4GB of Ram DDR3, 100GB of hard disk SSD, Processor: 2.4GHz Intel Core i5

- A sever computers for testing with the Recommended configuration: 4GB of Ram DDR3, 100GB of hard disk SSD, Processor: 2.4GHz Intel Core i5

**Software requirements:**

- Operating system: Window 8.1, 10

- Web server: Apache Tomcat

- IDE: Eclipse

- DBMS: MySQL

- Soured control: Microsoft Project Plan

- Design Graphic: Adobe Photoshop 6

- Contact tool: Skype

- Architecture design: Astah

# Project Organization

## Purpose

This chapter provides an overview of the project plan includes project organization and project management plan.

## Software Process Model

### FPT Software Process Model



Figure 1: FPT Software process model

The software lifecycle is broken into *cycles*, each cycle working on a new generation of the product. The FPT Software process divides one development cycle in six consecutive *phases*:

1. Initiation phase
2. Definition phase
3. Solution phase
4. Construction phase
5. Transition
6. Termination

### Project Life Cycle

Basing on FPT Software process and real-world project, we decided to divide the project into 4 phases: Initiation, Solution, Construction, and Termination:

* **Initiation Phase:** This is the explanatory phase of the project. Project objective and description is described at this stage. The purpose of this phase is to collect and understand business requirements, detail the project plan and agree upon a high level statement of work. Our primary objectives are complete project identification and project plan. After these are completed, the project is checked against the following criteria:
  + Identify business functions of the system
  + Determining the scope, conditions and limitations of the project
  + List the main functions of the system
  + List one or more suitable architecture for the system
  + Identify project risks
  + Complete Report #1, and Report #2
* **Solution Phase**: In this phase, the architecture of the system is designed. The goal is to translate requirements and specification into a technical solution to produce Technical Design.
  + Our *primary objectives* are completeRequirement Specification, Architecture Design and Database Design.
  + Finally, the plan must be provided (including estimates of cost and time) for the construction phase. The plan must ensure proper and accurate based on experience.
  + Complete Report #3 and Report #4
* **Construction Phase**: This is the longest phase of a project life cycle.
  + In this phase, all functions of the system will be installed. The installation will be divided into small stages, each stage of the installation a few functions. The results of each phase will be the release of the module function can be executed.
  + Construction and improvement of products until the final product is ready to deliver to the user. During this phase, all the components and other features of the application is developed and integrated into the product.
  + This phase emphasizes the resource management and control operations to optimize cost, time and quality.
  + Complete software packages and Report #5
* **Termination Phase**: This is the final phase in the life cycle of a project.
  + Their products will be deployed to the client. The feedback received during the transfer process will be recorded and put on the new functional requirements or functionality enhancements in the next version of the product.
  + Phase transfer switch also includes the training system and the new system for the user.
  + Complete software packages and Report #6

## **Roles and Responsibilities**

## Organization Structure

|  |  |
| --- | --- |
| **Role** | **Responsibility** |
| Project Manager | Planning, developing schedules, coordinating communication, generally responsible for keeping the team’s focus on the main goal. |
| Technical Leader | Responsible for choosing and deciding what technologies should be used, as well as for overseeing the work being done by other developers. |
| Quality Assurance Manager | Ensuring the product meets the certain standards of quality from requirements. |
| Test Leader | Responsible for test execution, including test set-up and test run, evaluation of test run and error recovery, defect logging and test results recording. |
| Developer | Involve coding the product and reviewing code of other developers. |
| Designer | Involve designing product’s user interface. |
| Tester | Involve testing the product. |

Table 2‑1: Project Structure

## Project Team Member

|  |  |
| --- | --- |
| **Team Member** | **Role** |
| DuongLV | Project Manager, Developer |
| QuyetVV | Technical Leader, Developer |
| QuyetTD | Tester Leader, QA |
| HoangLG | Developer, Designer |
| TuanDL | Designer, Tester, Developer |

Table 2‑2: Project Team Member

## Tool and Techniques

|  |  |
| --- | --- |
| **Programming languages** | JavaScript, Java, Html |
| **Framework** | Java Server Face, Hibernate |
| **Software architecture** | Spring Framework |
| **Version control** | TortoiseGit |
| **IDEs/Editors** | Eclipse |
| **UML tools** | Astah Professional 7.0 |
| **Web server** | Apache Tomcat 7 |
| **DBMS** | MySQL |
| **Deployment server** | Apache Tomcat 7 |
| **Project management tool** | Microsoft Project 2010 |
| **Development process** | Rational Unified Process |

Table 2‑3: Project Team Member

# Project Management Plan

## Tasks

Refers to “CTC\_Project\_Schedule\_v1.0\_EN” file.

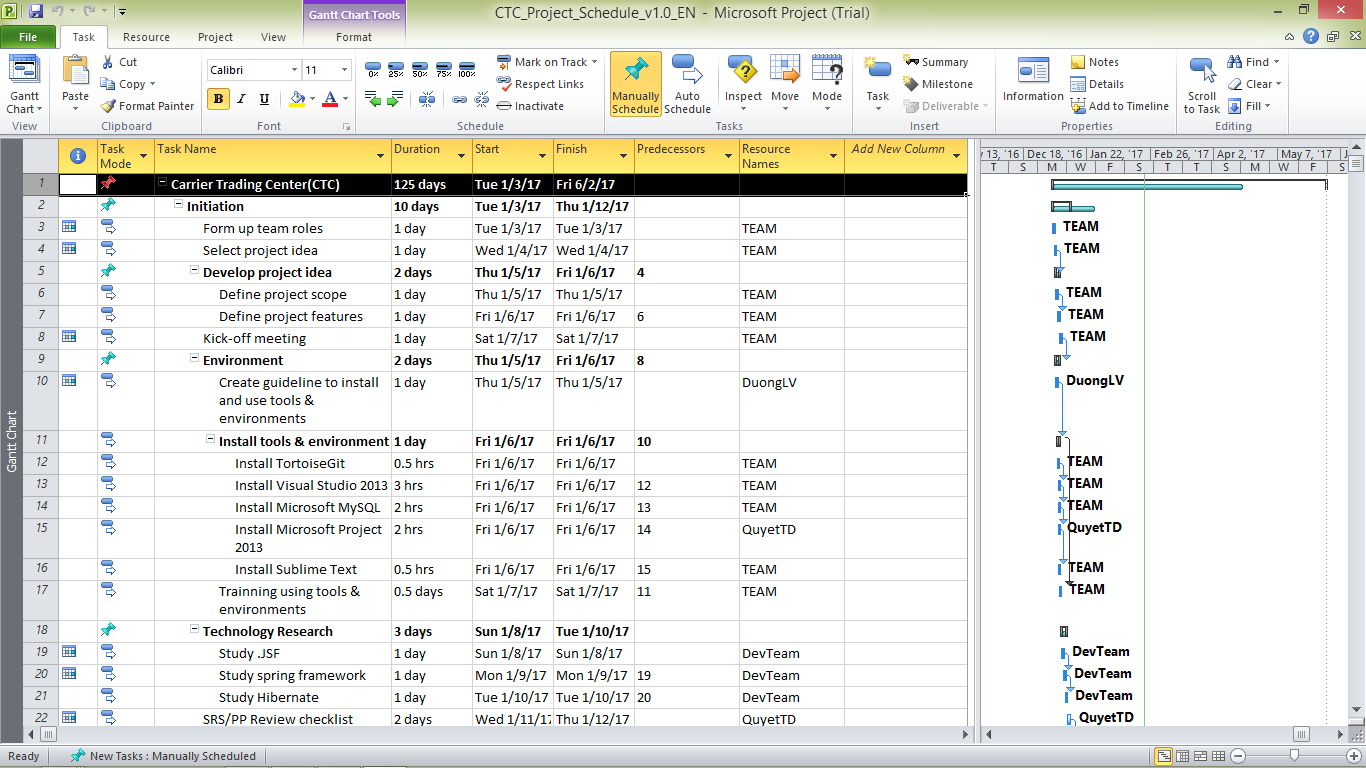


Figure 2‑2: CTC Project Management file

## Meeting Minutes

All meeting minutes will be written following this template:

| ***Meeting/Project Name:*** | *CTC* | | | |
| --- | --- | --- | --- | --- |
| ***Date of Meeting:*** |  | ***Time: (Type)*** | *hours (Face-to-face)* | |
| ***Meeting Called by:*** | *QuyetVV* | ***Location:*** | *FPT University‘s Library* | |
| ***Note Taker:*** | *QuyetTD* | ***Time Keeper:*** | *DuongLV* | |
| 1. Meeting Objective | | | | |
| * Choose names, ideas for project | | | | |
| 2. Attendance | | | | |
| ***Name*** | ***Roles*** | ***E-mail*** | | ***Phone*** |
| Lê Văn Dương | Project Manager | [DuongLVSE03190@fpt.edu.vn](mailto:DuongLVSE03190@fpt.edu.vn) | | 0166-977-5349 |
| Lê Gia Hoàng | Developer | [HoangLGSE03200@fpt.edu.vn](mailto:HoangLGSE03200@fpt.edu.vn) | | 0165-901-2428 |
| Đặng Lê Tuấn | Designer | [TuanDLSE03807@fpt.edu.vn](mailto:TuanDLSE03807@fpt.edu.vn) | | 0968-095-029 |
| Vũ Văn Quyết | Technical Leader | [QuyetVVSE03344@fpt.edu.vn](mailto:QuyetVVSE03344@fpt.edu.vn) | | 0972-381-151 |
| Trịnh Đình Quyết | Test Leader/QA | [QuyetTDSE03159@fpt.edu.vn](mailto:QuyetTDSE03159@fpt.edu.vn) | | 0964-657-385 |
| 3. Content | | | | |
|  | | | | |
| 4. Note | | | | |
|  | | | | |

Table 2‑4: Meeting Minutes Template

## Coding Conventions

Reference to CTC\_Coding\_Convention\_Oracle\_EN

## Risk Management Plan

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Description** | **Avoidance plan** | **Contigency plan** | **Status** |
| R1 | **Illness or absence of team members** | Member has to notice to the team about absence period and the plan of how to keep up with the work process. | Ensure that the absence of a member will not affect others and always have plans to deal with this problem. | Closed |
| R2 | **Business problem** | Any ideas are welcome but members have to discuss with others and always focus on the reality and possibility. | Make sure the business logic of any ideas is carefully analyzed. | Closed |
| R3 | **Change management overload** | A large number of change requests dramatically raises the complexity of the project and distracts key resources. | If there is a “must be changed” requirement, all team members must join the meeting to decide whether it should be implemented or not. | Closed |
| R4 | **Project team misunderstand requirements** | When the project team a gap misinterprets requirements develops between expectations, requirements and work packages. | Make sure any miscommunication has to be resolved. | Closed |
| R5 | **New technology** | Choosing technology based on member’s qualification. All team members must nurture by self-study. | When someone chooses a new technology, he/she has to explain to all team members about the decision. | Closed |

Table 2‑5: Risk Management

## Communication Plan

*Weekly meeting schedule:* We use Iterative and Incremental Process Model, then we divide the system into two sub-systems (CTC services and CTC Front-end), each sub-system is divided into a bunch of small tasks. Each task is recorded to Trello then estimated depending on difficulty and the amount of work by the whole team, after that the Team Leader will assign the task to team members and depending on difficulty, the Technical Leader will assign deadlines for each task. We will have a meeting every Monday to inform to all team about what each member finished last week, the status (fast, on time or slow), the issues met and how to solve them. If any member raises any issue, the whole team will help to find out a solution together. After that, the team will define detailed stories for next week tasks and estimate how long it takes to finish them.

*Daily discussing schedule*: Each sub-system has one development team with different schedule. Whenstarting work-day, each team will have a stand-up meeting to inform to others: “What did I do yesterday?”, “What will I do today?” and “Are there any impediments in my ways?”. By focusing on what each person accomplished yesterday and will accomplish today, the team gains an excellent understanding of what work has been done and what work remains.

*Unscheduled meeting*: If someone has an important problem that he wants to solve immediately, we will have a meeting for discussion, usually via some online channel: Facebook, Skype, or Phone.

*Communication channel*: Our main communication channels are sky. On the other hand, we used face-to-face meeting, Email, Messenger. However, we sometimes make a phone call or instant message if someone has a problem.