**2. Concept of operations**

**2.1. System description**

**2.1.1. Information system name**

Empiks\_system

**2.1.2. Information system Owner**

Name: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Title: Director of Operations

Agency: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Address: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Email address: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Phone number: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**2.1.3. Authorizing official**

Name: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Title: Manager of Operations

Agency: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Address: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Email address: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Phone number: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**2.1.4. Assignment of security Responsibility**

Name: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Title: Information security officer

Address: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Email address: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Phone number: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**2.1.5. Information System Operational status**

The system is operational and checked regularly, and updated when needed according to the users’ feedback and new efficient technology on the market.

**2.1.6. General system description**

**a. System environment**

The system has realized the function of “an internet shop” and the condition of shopping online will not be restricted by time but will be only accessible to some regions.

**b. Related technologies**

**- Java and JSP:** Java is used in this system as programming language, the reason to choose it is determined by its powerful characteristics. And the technology of the system is JSP (Java Server Page), a mainstream development techniques based on Java Servlets. Therefore, JSP can be cross-platform operation of web development, and makes the web application simpler and faster.

**- Spring architecture:** The Spring framework provides a full-featured MVC module for building Web applications with spring’s pluggable MVC architecture. It is configurable with multiple voew technologies e.g. JSP, Velocity, Tiles, … Spring MVC separates the roles of the controller, model object, dispatcher Servlet and the handler object.

**c. System requirements**

In term of operations, the system runs in Windows, using MySQL database, which has good performance in operation and management.

The system has the following functions:

A personalized user interface and straightforward to use, the systematic proscenium is equipped with display function of commodity information, so that customers can browse and compare commodity.

Classification of goods is followed by, which plays an important role in the convenience of choosing items. The next section is the design of shopping cart, users can add items to it, and change the quantity at pleasure. It is necessary to implement the function of setting up the bulletin board of the commodity and sales ranking of goods, so that customers can get the latest information on shelves and some special offers.

There are two modules included, demonstrating the website module, and background management module. Functions are supposed to be realized by foreground of system. Module of Commodity is consisted of three parts: the part of New Products shows the latest fad products, which is visually appealing and stood out. And products in Special Offers always are more affordable and durable. The sales ranking shows all commodities, which is convenient for users to choose items they prefer. Two main aspects are included in Users Module, they are Users Registration and Users Login. Shopping Cart, as the name implies, the function of it is that adding items to it and Manage items which users choose. And users have permission to modify the number of items and empty the cart. Comments are good for customer communication and it promotes designers to improve the system. Meanwhile, the modules of Adding Comments are convenient for users to communicate

System

Foreground

Function

Graph

Commodity

Users

Message

Board

Shopping

Cart

New Products

Special offers

Sales Ranking

Users Registration

Users Login

Adding Items

The Management of

Shopping Cart

Adding Comments

Checking Reviews

In our system, the first step is users’ operation on client side. For example, users submit forms in client side, and send requests to server and wait server’s response. The next step is operation on server side, the server accept and process request, such as process the data requested by shopping cart, calculate the data. The last step is sending information according to the feedback and display results to users.

Browser

Finish

Server

Request server

(Get / Post)

Receive and

response HTML file

Organize related

resource files

Display pages

Http Request

URL Path

Http Response

Accept Request

Generate HTML files

based on URL parameters

Send HTML files to

browser

User

inAt present, current, mainstream databases include Oracle, MySQL, … The reason to choose MySQL due to comparison with other databases, which is more lightweight than Oracle, and more advanced in performance of query speed and support schema than SQL SERVER. With rapid increase of data, users and number of visitor, the system is confronting higher demand in technology and platform. In order to have better management of data, the system uses MySQL database system, which is mainly used for storing all kind of related information of the commodities, the system mainly establishes the table of commodities, orders, users and messages.

**2.2. Overview of Three phases**

This Information system Contingency plan has been developed to recover and reconstitute the Empiks\_system using a three-phased approach. This approach ensures that system recovery and reconstitution efforts are performed in a methodical sequence to maximize the effectiveness of the recovery and reconstitution efforts and minimize system outage time due to errors and omissions.

The three system recovery phases are:

**2.2.1. Activation and Notification Phase**

The activation of the ISCP will occur in the following cases:

- Unavailability of the system

- Servers are down

- Data corruption

- Unavailability of data

- Hacking attempts of the system

Once the ISCP is activated, system owners and users are notified of a possible long-term outage, and a thorough outage assessment is performed for the system. Information from the outage assessment is presented to system owners and may be used to modify recovery procedures specific to the cause of the outage.

**2.2.2. Recovery Phase**

The process of recovery will be determined according to the event occurred.

The activities and procedures for recovery will depend on the event described in order to recover full access and control of the assets.

**2.2.3. Reconstitution**

The Reconstitution phase defines the actions taken to test and validate system capability and functionality at the original or new permanent location. This phase consists of two major activities: validating successful reconstitution and deactivation of the plan. During validation, the system is tested and validated as operational prior to returning operation to its normal state. Validation procedures may include functionality or regression testing, concurrent processing, and/or data validation. The system is declared recovered and operational by system owners upon successful completion of validation testing. Deactivation includes activities to notify users of system operational status. This phase also addresses recovery effort documentation, activity log finalization, incorporation of lessons learned into plan updates, and readying resources for any future events.

**2.3. Roles and Responsibilities**

- Crisis Manager: responsible for directing the recovery of business operations and has full authority to make decisions related to recovery efforts. The Crisis Manager will be responsible for communications with the insurance provider.

- Recovery Management Team : are responsible for implementing the portions of the Recovery Plan for their functional areas and are given authority to do so by the Crisis Manager.

- IT Manager: will implement the IT Systems Recovery program and maintain all IT operations.

- Security Manager

- Engineer

- admins

- monitoring and administer group

-devops team – ICE reestablish the service, block the threat

- Media Relations Manager: will establish and maintain contact with the news media and other organizations concerning disaster recovery operations.

- Vendor/Contractor Manager: will reestablish and maintain contact with vendors and contractors to provide supplies and services during recovery from a disaster.

- Human Resources Manager: will implement any changes or amendments to personnel policies during disaster recovery, and administer personnel relocation or layoff programs.

- Customer Service Manager: will reestablish and sustain communications with customers, and resume other customer services as soon as feasible.

- Recovery Command Center Supplies Manager: will provide basic supplies and services for Command Center operations.

- Suppliers and contractors: suppliers and contractors who have agreed to provide supplies and services following a disaster or any major business disruption will perform work and provide materials and equipment necessary to return to normal operations.

- Critical operations support staff: which consists of key employees that are considered critical for the continuation of business operations after a disaster, will work together as a team to keep the business going during the recovery.