Mid project document

Software component:

As it is known, carnival cruise line management system is implements and deploy as web-based system. Therefore, to design web interface i.e., web layouts, database for the management system require web development technology, languages, web servers and operating system. Following software components require implementing and deploying desired management system.

* Windows Operating System 64 bit
* HTML, CSS, Java Script
* JQuery
* MySQL5.5
* XAMPP Web Server
* Web Browser (For example Mozilla, Google Chrome, IE8, OPERA etc.)

**Windows Operating System 64 bit-** For the implementation of the system, hardware components are accessed through windows operating system 64-bit architecture interface. It helps developers to develop system components using web application languages. Windows operating system 64 bit is minimum requirement as software components.

**HTML, CSS, Java Script-** To design layout of web pages and implement events and activities, HTML language is used. HTML is Hypertext Markup Language that allows designing of web contents. CSS is Cascading Stylesheet enable attractive and customized layout of web pages. Java Script is a scripting language which allows dynamic contents and input handling at the web servers. With the help HTML, CSS and java script developers able to implement dynamic, responsive and customized web application.

**MySQL5.5 –** Apart from the design and development of web interface. To keep records of all stakeholders and activities of the system, a database is to require implementing using MySQL5.5. MySQL5.5 is database software that enable to define, create, storing and manipulating database.

**JQuery –** JQuery is query language which is used to execute SQLquery at back end side i.e. database of application. JQuery allow writing of different type of queries to store data in database and retrieve required records from database. It also allows manipulation and deletions of records using Data Manipulation Language (DML) query.

**XAMPP Web Server-** To test deployment of web application, require web server configuration on a server machine which enable remote access of carnival cruise line management system. Any server instance may be configuring for this purpose but for carnival cruise line management application, XAMPP server is configured.

**Web Browser (For example Mozilla, Google Chrome, IE8, OPERA etc.)-** At the client or customer side, to access the carnival cruise line management system require client program. Therefore, client may use any web browser such as Mozilla, Google Chrome, IE8, OPERA etc. With the help of web browsers customer or internal staff may access the functionality of the system.

The motive of the web-based development is to access carnival cruise line management system from any place and at any device for example desktop computer, laptop, palm top, mobile phone and other device. Development of system is ensuring that if system is accessed from mobile phone or palm top then appearance should be uniform. Even it is accessible and functional on the devices, web browsers and operating system.

Further, functional view of entire system using component diagram and user interface design is illustrates and discussed.

## 2.2 System Architecture Overview

Similar to previous systems, our system consists of hardware and software and has both a front-end and a back-end. Front-end and back-end are linked with the aid of a server located in between them. Front-end of our system is the user interface with which the user may easily interact with the system. Front-end of our system is designed with the help of HTML and CSS coding, and we are doing our best to develop a good front-end for the users so they can receive the service as soon as possible. To achieve this, we are working harder on developing a good navigation system, and we are using images to make our website more visually appealing. Regarding the back-end architecture of our system, Xampp, the cross-platform framework for Apache server and MYSQL, was utilized. Using the Xampp server and local-host/PhpMyAdmin, we will establish a database in which we will store all information. Our back-end code is written using JavaScript, MYSQL, and PHP.

Therefore, in terms of hardware architecture, we have utilized the following: an Intel® 2.40GHZ CPU, 512GB of RAM, a 20GB hard disk for storing customer data and our own personal information, and Windows as the operating system to run our system. Users can access our system from any smart device, including smartphones, laptops, and tablets, and can use any web browser, such as Chrome, Mozilla Firefox, or any other internet surfing browser.

The following figure, which depicts the system's interactions with the front-end, back-end, and customers, can shed light on our system's design.

# 2.4.3 Web server and Database used for design used for application

Apache Server was the webserver and for database we used MySQL.