

Project Proposal

Academic Year 2021

Candidate Details

Index No: 1805274

Name of candidate:

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Supervisor/Advisor Details

	Supervisor 1 (IT Related)	Supervisor 2 (Optional)
Name	Mr. M.P Sarath Wijeshinghe	
Designation	Assistant Director - IT	
Workplace address	Sri Lanka Export Development Board, No 42, Nawam Mawatha, Colombo 02.	
Academic/ professional/ qualifications and memberships	<ul style="list-style-type: none"> Degree in Statistics & Computer Sciences, University of Sabaragamuwa Post Graduate Diploma in Information Technology University of Sabaragamuwa Certificate in PHP and MySQL, Sri Lanka Institute of Information Technology. (SLIIT) Certificate in Web Development, Sri Lanka Institute of Information Technology. (SLIIT) Certificate of Creating Quality E-commerce Content conduct by SME Certificate Verification Link - https://learning.intracen.org/verify/?q=s8YMTI75uD	
Work experience	<ul style="list-style-type: none"> Assistant Director - Information Technology Export Development Board 3 years' experience in managing E-Commerce and Software Development 04 years' experience in supervising projects at tertiary 7 years' experience of Software Development 12 years' experience in implementing IT Projects 	
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Note: Any deviation of the final project from the project described in this proposal should be explained by the candidate in the dissertation.

Project Details

Title of Project:

Web-Based Shopping System for Encryption IT Solutions

If Repeat Student

Number of Attempt(s):

Previous Decision: ☐ Same/improved/new

☐ New

Earlier Project Title:

Name and address of client:

Encryption IT Solutions

NO: 51/L, New Shopping Complex,

Kaluthara Road,

Bandaragama.

Motivation for project:

Many types of computers, including desktops, laptops, notebooks, palmtops, and software, as well as peripherals like printers, scanners, and keyboards, are sold and serviced in the computer sales and servicing industry. Before being supplied to end-users, such as households and businesses, these products are frequently purchased from domestic and international producers and distributors.

Encryption IT Solutions is a renowned information and communication technology (ICT) company that has been in existence since 2010. They provide an unrivaled program and

experience in ICT equipment repair, servicing, maintenance, and cleaning. They are depending on its technically advanced next-generation infrastructure to deliver best in class customer-aware and lifestyle-enhancing products and services that anticipate customers' needs.

The existing system

Customers are on the go, busy, and mobile, and they want frictionless and seamless services. By gaining a solid understanding of the needs of customers they are provided with a convenient product browsing experience, a simple payment system, and a delivery tracking system that allows customers to track their order as it arrives at their home. In addition, after the discussion with shop technicians, it was discovered that the average person has just around 25% of the average understanding of how to purchase items to build a computer. Others require technical support to purchasing products. To use a virtual assistant to aid the rest of the team who are unfamiliar with computer hardware was decided. Besides, the consumer has less time to troubleshoot computer hardware. Our solution was to create an efficient repair management module with an appointment booking module as a computer hardware service provider to prevent consumers from wasting time at their repair location. It is more important to deal with the warranties of the items. Adding a warranty checking feature that allows consumers to check the warranty status of individual parts purchased from the shop is also concerned.

An outstanding solution for Encryption IT Solutions to continue their greatness in the computer sales and maintenance sector in this digital age can be added. By the same token, while pursuing a Bachelor's degree in Information Technology, this effort would substantially assist me in improving my project management, system analysis, design, and development abilities.

Objectives and scope of proposed project:

Objectives:

The study's overall goal is to build and develop an online system for managing computer hardware and services that will assist the company and its employees in becoming more popular with their consumers and marketing their business through the internet.

The study's particular objectives are as follows:

- Include a virtual computer hardware assistant to let customers design a custom computer even if they don't know anything about computer hardware.
- Using an automated question-based module to implement Online Troubleshooting and suggest appropriate items that are currently in stock.
- Including an appointment management module for taking care of appointments from clients who are having issues with their current stuff.
- Providing a feature-rich product browsing method, as well as a simple payment and shipping mechanism, to fulfill the customer's order.
- Implementing a warranty checker to whether the items bought by the customer are still covered under warranty.
- Inventory management, which makes it easy to create items for the store and receive automated alerts when stock levels are low.
- Generate a variety of reports and graphics, including sales and stock data, to assist management in making decisions.

Scope:

- **Computer Hardware Assistant Module**
 - This module assists customers who are unfamiliar with computer hardware. It takes all the details of individual items and matches them with the next most appropriate piece, completing the assembly of an entire computer. After completing, customers have an option to check out the selected parts and make a payment to complete the assistant process.
- **Troubleshooting Assistant Module**
 - With the help of this virtual assistant, consumers may troubleshoot their hardware failures without having to visit a computer repair shop, and they can order the right parts that the fault has accurately recognized. Customers can schedule an appointment with one of the computer hardware technicians if the problem is not resolved.
- **Inventory Management Module**
 - Has the ability to handle the complete inventory. Individual items and corresponding categories, brands, and models can be added, deleted, and updated.
- **Appointment Booking Module**
 - This module aids in the scheduling of appointments for clients who wish to troubleshoot with in-house computer hardware professionals.
- **Delivery Management Module**
 - This module contains all of the customer-created delivery records in the system. It displays the order tracking number as well as information about the courier company.

- Shopping Cart Module
 - This module allows users to find the entire store for items and create customer orders using a shopping cart.
- Payment Module
 - This module provides up-to-date information on all payments made by customers, as well as advanced payment filtering options and having bank transfers, and cash on delivery options.
- Warranty Management Module
 - This module aids in the generation of warranty alerts. It shows the status of the warranties of the goods and how much time is left on each item's warranty.
- Invoice Generation Module
 - In the system, this module generates a variety of invoices. It's compatible with the payment, computer hardware assistant, and troubleshooting modules.
- User Management Module
 - This module helps to manage all of the users of the system. It aids in the selection of the right individual for the right position.
- Report Management Module
 - This module will make it possible to generate, preview, and print a variety of reports in order to continue with the success of the business.
- Backup and System Log Module
 - This Module enables the backup of system data and extracts the system log such that the system may be audited for any additional issues.

Critical functionalities for project:

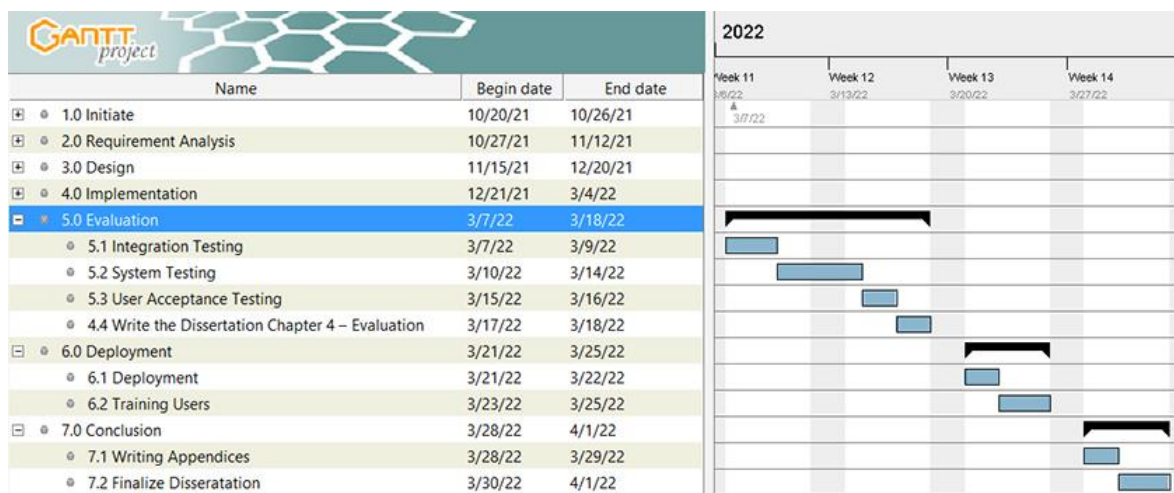
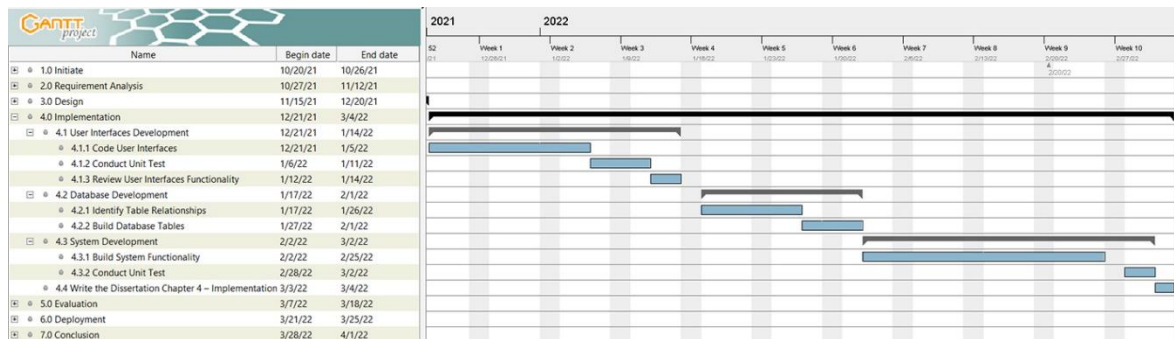
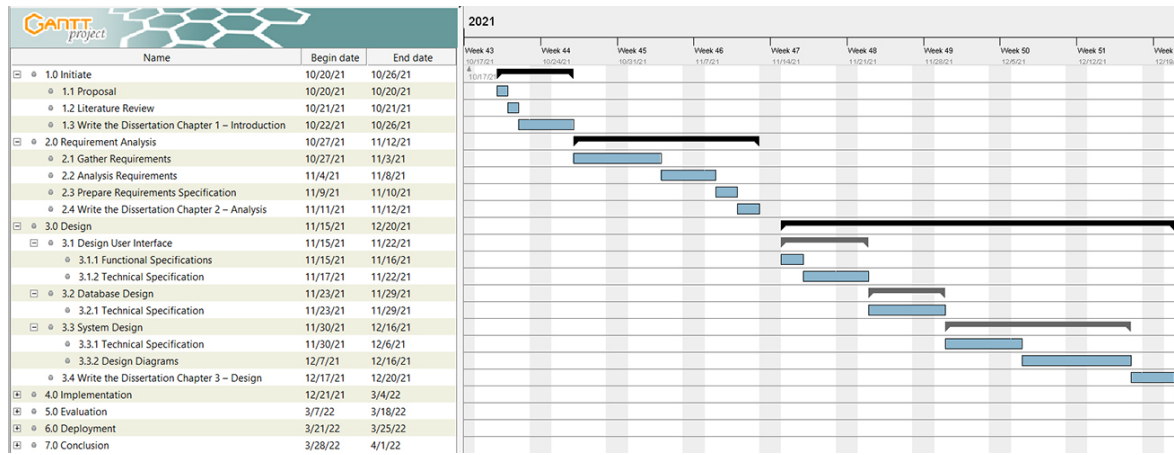
- Computer Hardware assistant with appropriate item specifications to match with other hardware items.
- The questions in the Troubleshooting Assistant Module differ depending on the type of failure.
- The invoice-generating module calculates the total value of the items without any mathematical errors.
- Create reorder amounts in the inventory management module using the first in first out procedure and send alerts to the necessary corporate personnel.
- Appointment booking time does not overlap with earlier dates or the duration of the booking time.
- Authentication and authorization of users, as well as safe access.

Itemized list of deliverables of the system:

Note: Deliverables are items that you would deliver to the client at the end of the project.

- Project Proposal
- Website
- A fully functional finalized content management system.
- Test plan and Test results
- User manual
- User training
- Source code

A project plan using Gantt chart (include the work involved in system development as well as writing the dissertation):



Resource requirements for project (e.g., hardware, software,...):

Hardware requirements

Server

- Processor – Intel Core i7 fourth-generation or higher.
- Ram – 8GB
- Storage – 20GB HDD Drive
- 1Mbps network connection

End-User

- Processor – Intel Core i3 first-generation or higher.
- Ram – 4GB
- 1Mbps network connection

Software requirements

Server

- Windows 8 or higher OS
- Apache server
- PHP 7.4 higher
- MySql

End-User

- Windows 8 or higher OS
- Chromium-based v76 or Firefox v73 or higher web browser

Proposed way of self-evaluating the success of your system:

- Ensure that all customer needs are documented in accordance with the scope.
- Unit testing of each level of the source code and ensuring that there are no syntax issues.
- Use test data to evaluate the software and operational behavior.
- Test a final functional system in client environments to ensure that it meets all of the customer's needs.
- With the customer, perform user acceptance testing.