

Chapter 1:

1. INTRODUCTION

Online Cosmetic Portal is a web based application created using PHP and MySQL as the database. Whereas the shop owner wants to expand the market, the owner wants to create a website to start business in the internet, so the project aims to view and make sales of all the products of the shop through the website.

* 1. Background

The proposed system will digitize the information of the products of the shop and view them in the website through which it will be more flexible for the customers to view the products without having to come in the shop for old customers as well as for new customer. From this approach the shop will be able to reach more customers than usual. Customers can view the products without logging in but in order to make the purchase they must create an account and login. Customers can also write their reviews about the product as well as send report if there is any problem with the given product. Customers can view the difference in brand based on quality and price. Customers can view the separate section of the top best quality products and brand.

* 1. Problem Identification:
* Customers have to go to the shop, view the product and then buy.
* Less customer satisfaction.
* Less number of peoples reached.
* Difficulty in promoting business.
  1. Description of project

* Customers can create an account.
* Login for both admin and customers.
* Admin can add, update and delete products.
* Customers can view about products and its details.
* Customers can give review about the products.
* Customers can send reports.
* Customers can view the difference in brand based on quality and price.
* Customers can view the separate section of the top best quality products and brand.
* Admin can view sales details.
* Admin can view stock details of the products.
* Customers can purchase the products.

Chapter 2:

2.1) Scope

Scope is the part of a project planning that involves determining and documenting a list of specific project aims, objectives, tasks, costs and deadlines.

2.2) Aims

* To increase efficiency in work.
* To provide a system that can be easily maintained and used.
* To provide a system that can be used for years.

2.3) Objectives

* Collect appropriate information to develop the system.
* To increase high numbers of customers.
* To allocate the certain time, and aim to fulfill it in that allocated time.
* To design the application that have all required features and meets the aims.
* To develop a complete and full functionality application.
* Better customer satisfaction.

2.4) Overview of the project

The proposed system or website will be extremely simple to utilize, easy to use, user friendly, no need of training required for using the system. Customers are able to give their reviews plus other customers can view those reviews. Admin can easily view the details of the product that has been sold, whereas the stock quantity of the products.

Chapter 3:

3.1) Development Methodology

For developing the Online Cosmetic Portal I preferred using waterfall method. Waterfall model is a general description of the systems development life cycle model for software development. It is very simple to understand and use. It is the procedure that works by following step by step method for developing the system. Before the next phase can begin the requirement of each phase must be completed where no overlapping takes place. Throughout the procedure all the requirements remains the same. If some changes are required in the middle phase of the project, project should be restart again. By using waterfall model projects are easy to assemble also help to produce a well documentation. Phase of the waterfall method are below:

* Requirement Analysis: This phase involves understanding what needs to be design and what its functions, purpose is.
* Design: The requirement specifications are studied in this phase and design of a system are prepared. Design helps in specifying hardware and system requirements and also helps in defining overall system structural design. The technical aspect like programming language, database as well as other high technical detail required for the system.
* Implementation: This phase is complete implementation. All the coding is done in this phase.
* Testing: In this phase the software that are designed, needs to go through constant software testing to find out if there are any flaw or errors. Testing is done so that the customer does not face any problem during the installation of software.
* System Deployment: Once the testing is done, the product is deployed in the customer environment or released into the market.
* Maintenance: This phase is occur after installation, and involves making modifications to the system. These modifications arise either due to change requests introduced by the customers, or defect discovered during live use of the system.

Advantages:

* Easily understandable and it is easy to use.
* It is easy to manage due to the rigidity of the model.
* Phases are processed and completed one at a time and they do not overlap.
* It works flexibly for small project where requirements are very well understood.

Disadvantages:

* It is difficult to estimate time and cost for each phase of the development process.
* Once the system is in the testing phase, it is very difficult to go back and change something.
* Not a good model for complex and object-oriented projects.
* Not suitable for the projects where requirements are at a moderate to high risk of changing.

3.2) Design Patterns:

Design patterns are reusable solutions for software development. They are patterns, or templates, that can be implemented to solve a problem in different particular situations. Design patterns help to speed up the development, as the templates are proven and from the developer’s position, only implementation is required. It is not specific to individual programming languages, but instead are best practices or heuristics that can be applied in different programming environments. Design patterns are proven and battle tasted. Design patterns use a formal approach to describing a design problem, its proposed solution, and any other factors that might affect the problem or the solution. Design patterns can be separated into three categories:

* Creational Patterns: It is used to construct objects such that they can be decoupled from their implementing system.
* Structure Patterns: It is used to form large objects structures between many disparate objects.
* Behavioral Patterns: It is used to manage algorithms, relationships, and responsibilities between objects.

For the proposed system I will be using MVC design pattern. MVC pattern stands for Model View and Controller pattern. This patterns is used to separate input, processing, and output of an application. This model is divided into three interconnected parts called the model, the view, and the controller. All of the three given components are built to handle some specific development aspects of any web or software application.

* Model: Model represents an objects or JAVA POJO carrying data. It can also have logic to update controller if its data changes.
* View: View represents the visualization of the data that model contains.
* Controller: Controller acts on both model and view. It controls the data flow into model  
  object and updates the view whenever data changes. It keeps view and model separate.

Advantages:

* Faster development process.
* Ability to provide multiple views.
* Support for asynchronous technique.
* Modification does not affect the entire model.
* MVC model returns the data without formatting
* SEO friendly development platform

Disadvantages:

* Increase complexity.
* Inefficiency of data access in view.
* Difficulty of using MVC with modern user interface.
* Need multiple programmers.
* Knowledge on multiple technologies is required.
* Developer have knowledge of client side code and html code.

3.3) Architecture:

The Online Cosmetic Portal system will be using two-tier system

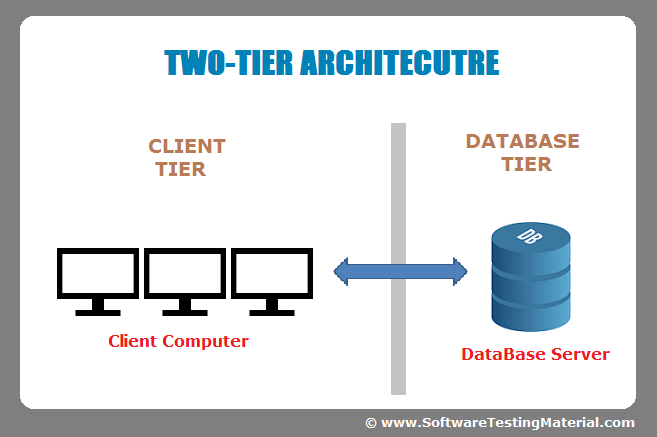
Two–tier architecture:

The two-tier architecture is based on Client Server architecture. It is like client server application. The direct communication takes places between client and server application. Due to tight coupling a 2 tiered application will run faster.

The Two-tier architecture is divided into two parts:

1. Client Application (Client Tier)
2. Database (Data Tier)

Client system handles both Presentation and Application layers and Server system handles Database layer. It is also known as client server application. The communication takes place between the Client and the Server. Client system sends the request to the Server system and the Server system processes the request and sends back the data to the Client system.



Chapter: 4

Work Breakdown Structure (WBS):

4.1) WBS/Project planning:

A work breakdown structure (WBS) is a key project deliverable that organizes the team's work  
into manageable sections. It helps in planning and executing the project very effectively. It is  
represented as a hierarchical subdivision of a project into work areas with the lowest generally  
being a work package or sometimes even an activity. The WBS provides a foundation for all the  
project management work, including planning, cost and effort estimation, resource allocation,  
and scheduling. It can be performed using various ways like Milestones, Time estimation and  
Gantt chart. Break down of the project is given below: (Work Breakdown Structure, 2018)

* Project Management: Planning, monitoring, controlling and scoping.
* Analysis: Requirement, use cases and architecture will be done in analysis part.
* Design: Structural model, behavior model and UI design will be done in design part.

Time Estimation:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Topic** | **Start Date** | **End Date** | **No. Of days** |
| **1.** | **Proposal** | 3/26/19 | 4/9/19 | 15 days |
| **2.** | **Analysis** | 4/10/19 | 5/8/19 | 29 days |
| **2.1** | Obtaining Functional Requirements | 4/10/19 | 4/24/19 | 15 days |
| **2.2** | Obtaining Non-functional Requirements | 4/25/19 | 5/3/19 | 9 days |
|  |  |  |  |  |
| **2.3** | Use Cases | 5/4/19 | 5/8/19 | 5 days |
| **3** | **Design** | 5/9/19 | 6/3/19 | 26 days |
| **3.1** | Dynamic/ Behavioral Modelling | 5/9/19 | 5/10/19 | 2 days |
| **3.2** | Activity Diagram | 5/23/19 | 5/24/19 | 2 days |
| **3.3** | Sequence Diagram | 5/25/19 | 5/26/19 | 2 days |
| **3.4** | Static Structure Modeling | 5/27/19 | 5/28/19 | 2 days |
| **3.5** | Architecture Level Class Diagram | 5/29/19 | 5/30/19 | 2 days |
| **3.6** | Domain level Class Diagram by NLA | 5/31/19 | 6/1/19 | 2 days |
| **3.7** | UI Design | 6/2/19 | 6/3/19 | 2 days |
| **4** | **Implementation** | 6/4/19 | 6/24/19 | 21 days |
| **4.1** | Review functional Specifications | 6/4/19 | 6/5/19 | 2 days |
| **4.2** | Backend/ Database design based on diagram design | 6/6/19 | 6/13/19 | 8 days |
| **4.3** | Code Domain Classes | 6/14/19 | 6/21/19 | 8 days |
| **4.4** | MVC Pattern implementation | 6/22/19 | 6/24/19 | 3 days |
| **5** | **Testing** | 6/25/19 | 7/1/19 | 7 days |
| **5.1** | Black Box Testing | 6/25/19 | 6/26/19 | 2 days |
| **5.2** | White Box Testing (Unit Testing) | 6/27/19 | 7/1/19 | 5 days |
| **6** | **Documentation** | 7/2/19 | 7/11/19 | 10 days |
| **6.1** | User Manual | 7/2/19 | 7/3/19 | 2 days |
| **6.2** | Presentation Materials | 7/4/19 | 7/5/19 | 2 days |
| **6.3** | Final documentation | 7/6/8:00 AM | 7/11/19 | 6 days |

4.2) Milestone:

A milestone is a synchronization point. Major milestones mark the transition of a project from

one phase to another. Milestones can add significant value to project scheduling. Milestones

are frequently used to monitor the progress, but there are limitations to their effectiveness. They usually show progress only on the critical path, and ignore non-critical activities.

|  |  |
| --- | --- |
| **Milestones** | **Dates** |
| Project proposal | April 9th,2019 |
| Analysis specification |  |
| Design specification |  |
| Implementation |  |
| Testing |  |
| Final report |  |

Scheduling:

Scheduling is a listing of a project's milestones, activities, and deliverables, usually with  
intended start and finish dates.