Al-Hussain Technical University

The National ICT Up skilling program

Programming in PHP

Super-Shopping

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For:

Capstone project

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Abstract

According to the rapid technological growth in the interconnected society, it is beneficial to create websites that comfort customers and provide them with services in the shopping process and help companies offer products for sale, as well as provide services to both parties and save some effort and time. So we create those sites that give them more opportunities to easily communicate.

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1. Introduction

My Project is an online shopping site that allows companies and suppliers to show their products to users. In the first place it helps the user to buy anything from the site from anywhere and at any time without facing the obstacles of traditional shopping, and in the second place it allows companies to display goods for marketing, as this project provides flexibility and safe shopping to the user, which saves time and effort. It saves companies the trouble of marketing.

2. Methodology

2.1: Introduction

There is no universal method that can be used to develop every type of project. Therefore, team leaders use different methodologies based on their goals, timing, budget, and other factors. Among them are the agile models, rapid development model, waterfall model, etc. In our project, we will use waterfall model.

2.2: The Waterfall Methodology

What is the Waterfall Model in Software Development? Based on this methodology, the terms of the software development require that the transition from one phase of product creation to another occurs only after the full completion of the previous phase. There is no phase overlap. The budget and timing is strictly fixed. The classic implementation of the Waterfall model involves phases of project development in the following order:

- Requirements analysis.
- Design.
- Development.
- Testing.
- Operations (Maintenance).

2.3: Waterfall Phases

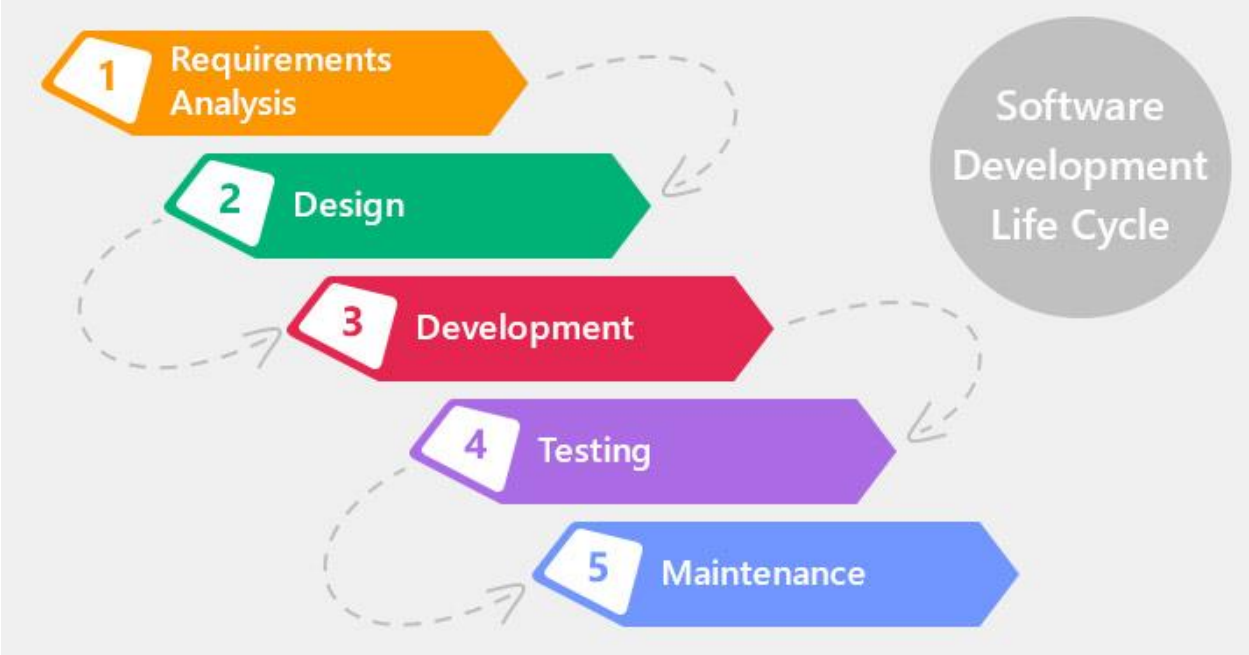

Figure (1) Waterfall Classic Phases.

2.4: Advantages

Recent years, the Waterfall model has given its leading position to more flexible methodologies. This is due to the general changes in IT, where the deadline can be easily shifted due to the functionality of the development.

1. The requirements are clearly and accurately stated, they remain unchanged throughout the entire project development;

2. Detailed documentation of each development stage provides resistance to changes in human resources – a new developer can quickly get all the necessary information;

3. Careful planning of the project development structure reduces the number of problematic issues;

4. The start and end points for each phase are set, which makes it easy to measure progress;

5. The tasks remain as stable as possible throughout the development process;

6. It provides easy control and transparency for the customer due to a strict reporting system;

7. Release date for the finished product, as well as its final cost can be calculated prior to development.

2.5: THE SIX STAGES OF THE WATERFALL MODEL (SDLC):

1. Requirement Analysis

All of the possible requirements of the system that will be developed are identified and documented in this stage.

2. System Design

From the first phase, the requirement specifications and the system design will be prepared. This allows developers to specify system requirements and hardware, as well as define the complete system architecture.

3. Implementation

With input from the previous stage, the system will then be developed in small programs referred to as “units.” Each of those units is developed and tested–a stage also called Unit Testing.

4. Testing and Integration

Once the implementation stage is done, all units are integrated into a system following the testing process. Post-integration is a step where the entire system is tested for any failures.

5. System Deployment

When both functional and nonfunctional testing is done, the product is either released into the market or deployed in the client environment.

6. Maintenance

There are possible issues that could come up once the software is deployed. To address those problems, developers release patches as part of the maintenance stage. Better versions might be released to improve the product even more. Maintenance is conducted to deliver these changes to the client environment.

3: Database Design

3.1: What is an ER diagram?

An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system. ER Diagrams are most often used to design or debug relational databases in the fields of software engineering, business information systems, education and research. Also known as ERDs or ER Models, they use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the interconnectedness of entities, relationships and their attributes. They mirror grammatical Structure, with entities as nouns and relationships as verbs.

3.2: Why use ER Diagrams?

Here, are prime reasons for using the ER Diagram

Helps you to define terms related to entity relationship modeling

Provide a preview of how all your tables should connect, what fields are going to be on each table

Helps to describe entities, attributes, relationships

ER diagrams are translatable into relational tables which allows you to build databases quickly

ER diagrams can be used by database designers as a blueprint for implementing data in specific software applications

The database designer gains a better understanding of the information to be contained in the database with the help of ERP diagram

ERD Diagram allows you to communicate with the logical structure of the database to users

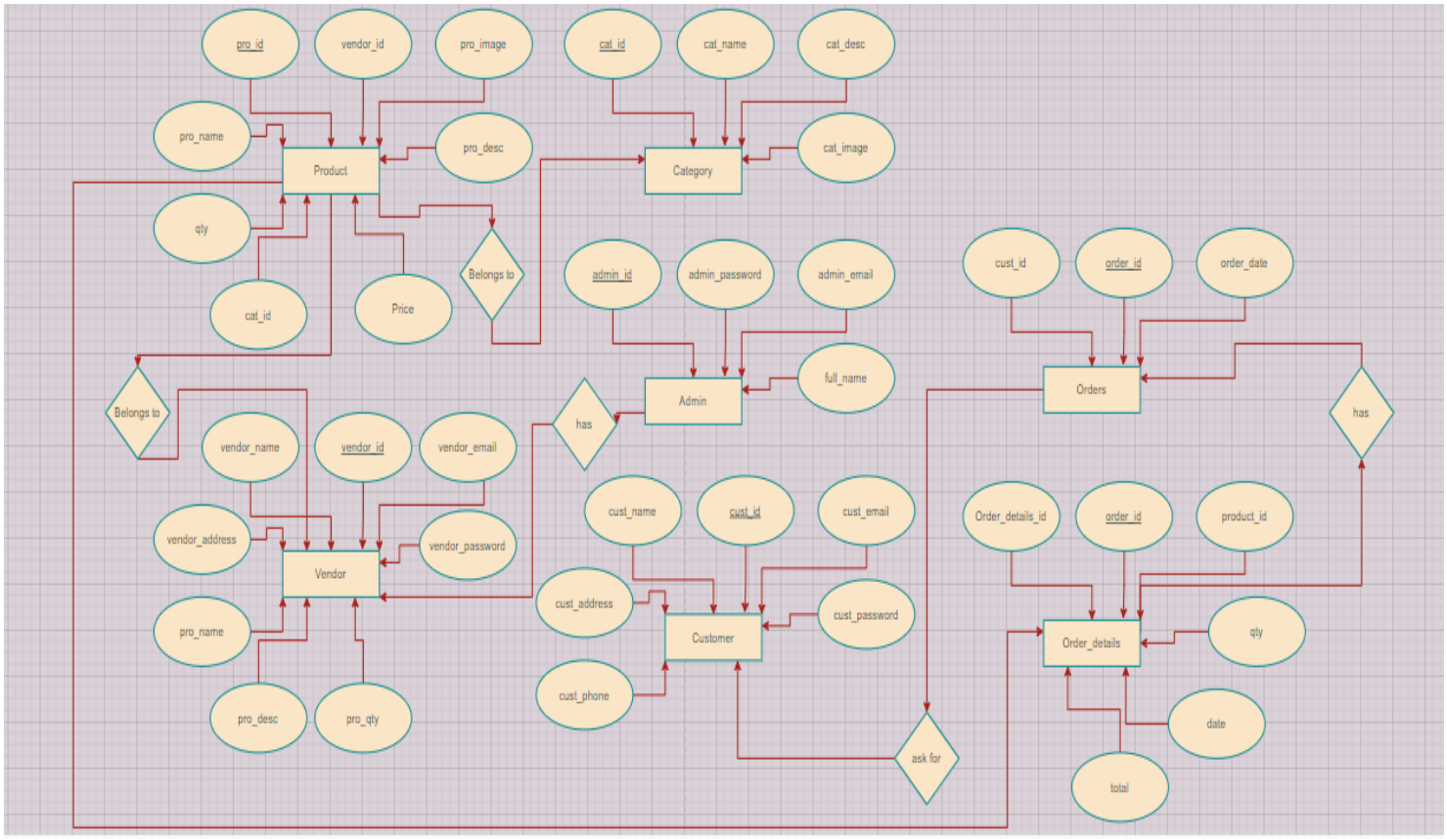

Figure 2: Entity-relationship diagram

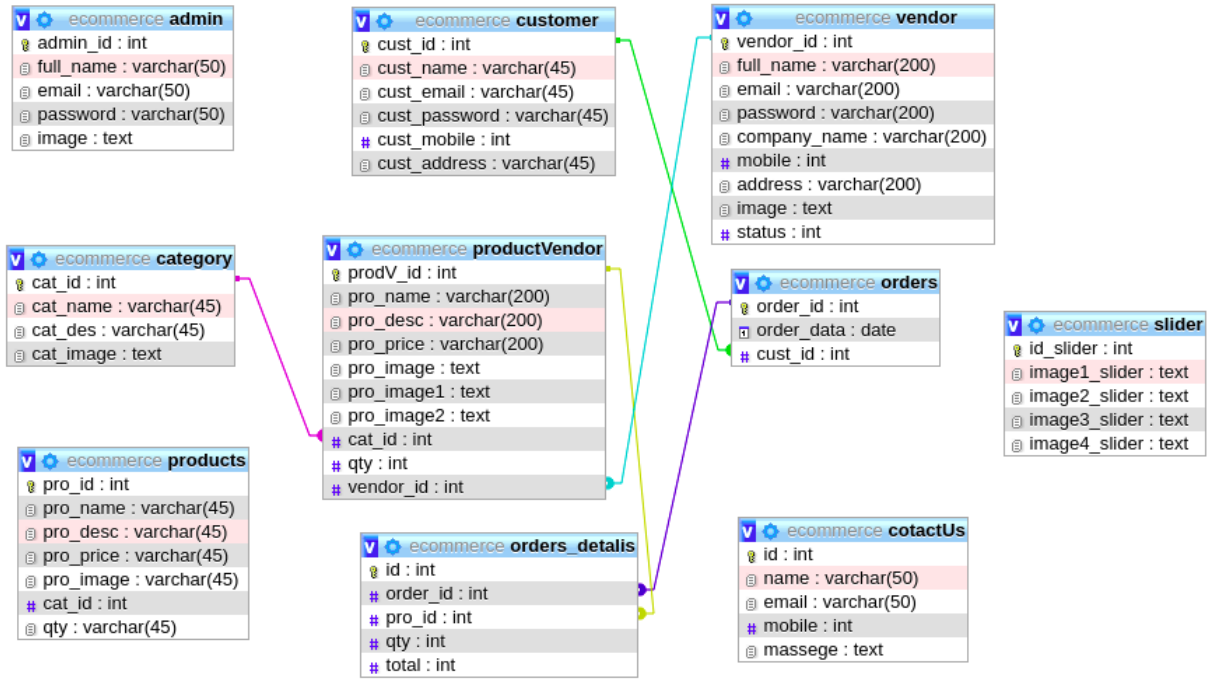

Figure 3: Class diagram

4. Conclusion

From the context of the foregoing, we can see the extent of the technological impact on daily life and the extent of that impact on the actual market, with a tangible and clear effect of saving time and effort for the customer and the provider to reach the mutual benefit and keep up with technological development in terms of speed, methods of purchase, sale and payment in various ways, and we can predict That all shopping and publishing operations will work in the future through websites or applications.

My Project: https://github.com/Mohammad92d

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